Connecting the dots

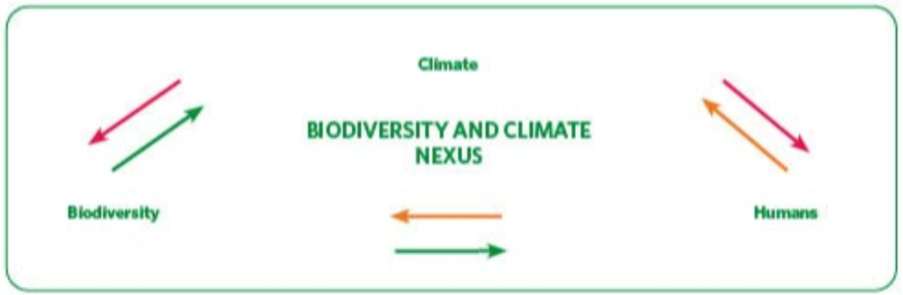
Audit source criteria and question bank to support the application of the biodiversity and climate Nexus lens

INTOSAI Working Group on Environmental Auditing

Contents

Introduction

The INTOSAI Working Group on Environmental Auditing (WGEA), established in 1992, aims to increase the expertise in environmental auditing and to enhance environmental governance. The INTOSAI WGEA's vision of innovative environmental auditing for a common sustainable future is operationalized with projects in thematic areas that are relevant for countries around the world. This audit source criteria and question bank is a direct product of the Nexus Area: Climate and Biodiversity work package.



Biodiversity and climate are interconnected

- Biodiversity loss can further accelerate climate change by reducing nature´s ability to regulate greenhouse gas emissions and protect against extreme weather events
- Mitigating climate change can help to conserve biodiversity, while protecting biodiversity and/or reversing biodiversity loss can help to mitigate climate change

Biodiversity is critical for humans

- Biodiversity is critical to human wellbeing (individual and communities) by providing food, water, air, energy, medicines, genetic resources, materials, cultural or spiritual benefits, etc.

Human activities can impact biodiversity:

- Positively via protection, restoration, sustainable practices etc.
- Negatively via habitat loss and degradation, pollution, harvesting etc.

Climate change, caused by humans, affects living conditions

- Increased temperatures and extreme weather events impact mental and physical health, natural and urban habitats degradation etc.
- Nature-based solutions and sustainable agriculture, forestry, industrial, energy and product practices and consumption can reduce carbon footprint
- Environmental auditors play an important role in making governments accountable

Climate change and biodiversity loss are major global threats and must be addressed together due to their interconnectedness. Climate change mitigation can either support or negatively affects species and ecosystems and exacerbates the loss of biodiversity. Biodiversity protection, on the other hand, helps to mitigate climate change. Environmental auditors can play an important role in making governments and authorities accountable and help tackle the dual biodiversity and climate crisis. This purpose of this bank of audit criteria and questions provides auditors a tool and starting point for Supreme Audit Institutions on how to approach an audit related to the biodiversity-climate change nexus. This work is complemented by:

- A biodiversity and climate Nexus report highlighting the interconnectedness of biodiversity and climate change and providing tools and cases studies to empower environmental auditors around the globe to apply the Nexus lens, hold governments accountable and make a difference for current and future generations.
- A literature review on climate – biodiversity Nexus: relationship of climate change mitigation and biodiversity policy measure.

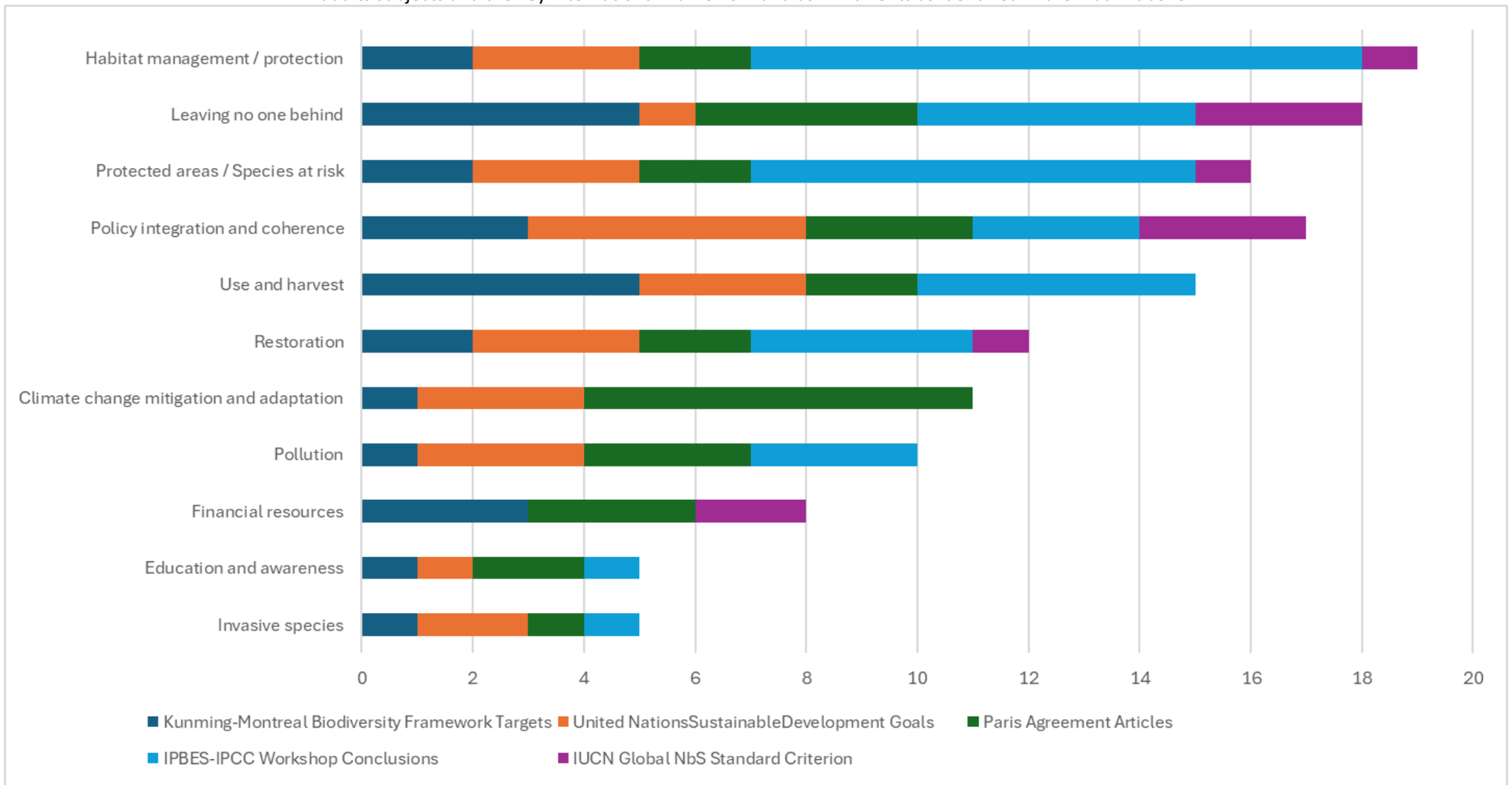
Alignment of biodiversity and climate Nexus thematic area with key sources of criteria

Key international framework and commitments can help apply the biodiversity and climate Nexus lens as part of environmental audit work related to a vast number of thematic areas. These can be used as audit criteria, unless a government body did not ratify or adhere to a specific framework or commitment. The table below illustrate the most direct link between some biodiversity and climate Nexus thematic area / potential audit subject and relevant international framework and commitments. The matrix below maps the most direct connections between potential audits subjects and key international framework and commitments that can be used sources of criteria.

International Framework / Potential audit subjects	Habitat management / protection	Restoration	Protected areas / Species at risk	Use and harvest	Invasive species	Pollution	Climate change mitigation and adaptation	Policy integration and coherence	Financial resources	Leaving no one behind	Education and awareness
Kunming-Montreal Biodiversity Framework Targets	✓ 1, 12	✓ 2, 11	✓ 3, 4	✓ 5, 9, 10, 13, 16	✓ 6	✓ 7	✓ 8	✓ 14, 15, 18	✓ 18, 19, 20	✓ 12, 13, 21, 22, 23	✓ 16
United Nations Sustainable Development Goals	✓ 13, 14, 15	✓ 13, 14, 15	✓ 13, 14, 15	✓ 13, 14, 15	✓ 14, 15	✓ 13, 14, 15	✓ 13, 14, 15	✓ 12, 13, 14, 15, 17		✓ 17	✓ 13
United Nations Climate Change Paris Agreement Articles	✓ 2, 8	✓ 2	✓ 2, 8	✓ 2, 5	✓ 2	✓ 2, 4, 7	✓ 2, 3, 4, 6, 7, 8, 10	✓ 2, 4, 6	✓ 2, 5, 6	✓ 2, 3, 6, 7	✓ 6, 12
ipcc ipbes Workshop Conclusions	✓ 1, 9, 10, 12, 16, 18, 19, 25, 26, 27, 31	✓ 10, 12, 13, 19	✓ 1, 7, 9, 10, 12, 13, 19, 24	✓ 1, 14, 18, 19, 20	✓ 19	✓ 5, 10, 28	✓ All	✓ 31, 32, 33		✓ 30, 32, 33, 34, 35	✓ 39
IUCN Global Nature-based Solutions Standard criterion	✓ 3	✓ 3	✓ 3					✓ 3, 4, 6	✓ 2, 4	✓ 1, 5, 8	

Many of the key international framework and commitments can be used to varying degree as source criteria for a vast number of potential biodiversity and climate Nexus audit subject. The graphic below highlights the most direct correlation per Biodiversity and climate Nexus thematic area / potential audit subject. The table below illustrates the degree of connections between potential

audits subjects and the key international framework and commitments as identified in the matrix above.



Audit questions bank per biodiversity and climate Nexus thematic area

The table below list potential audit questions that apply the biodiversity and climate nexus lens that can be used by SAIs as part of their work. These provides auditors a tool and starting point for how to approach an audit related to the biodiversity-climate change nexus. These audit questions can be used in the planning phase to determine areas of highest risk, create a series of audit questions in areas to help guide the examination of audit evidence, and guide reporting structure and identify trends, as they are repeatable for various audits, regardless of the specific subject matter.

Nexus thematic area / Potential audit subject	Potential audit questions	Source(s) criteria[1]
General	• Is there a national sustainable development strategy, biodiversity target or climate target linked to action? • Are challenges clearly identified and documented? • Are costs and benefits of the action assessed and documented? Will it be conducted periodically? • Is there an action plan? • Is risk identification and risk management integrated into the program/action plan design? • Were alternatives solutions considered during action design? • Are relevant social, economic and environmental factors in action design/planning addressed? • Are short, medium and long term biodiversity and or climate benefits considered? • Is baseline data on the state of the ecosystem and climate, including on the factors contributing to the problem documented? • Is continuous improvement and feedback imbedded in the action implementation as well as measuring and monitoring? • What Key Performance Indicators (KPIs) are used to measure the effectiveness of biodiversity and climate programs? • Progress is reported transparently	**N/A - Not source criteria specific**

[1] Some source criteria have generic elements that apply broadly to many environmental thematic area and potential Nexus audits. The element reflected in this table are the most direct correlation.

Nexus thematic area / Potential audit subject	Potential audit questions	Source(s) criteria[1]
Habitat management/ protection	Sustainable habitat management • Are areas of high biodiversity importance, or high ecological integrity, being effectively managed? Is climate change being considered? • Are there action plans and/or strategies for areas of high biodiversity importance, or high ecological integrity, that in place to reduce their loss close to zero by 2030? • Does planning or management in place respect the rights of indigenous peoples and local communities? • Are the obligations under international agreements to sustainably use terrestrial and inland freshwater ecosystems and their services met? • To what extent was sustainable management promoted forests or other ecosystems subject to use of harvest? Was the biodiversity and climate nexus in its sustainable management considered? Habitat protection • Are clear and measurable targets for habitat protection established? • What actions have been taken to reduce the degradation of natural habitats, halt the loss of biodiversity and protect and prevent the extinction of threatened species? Have the impacts of climate change been considered in these actions? • What actions were taken to combat desertification and related land degradation? Have the actions been taken in consideration of the biodiversity and climate nexus? • What measures have been taken to protect endangered species (flora and fauna)? Do the measures consider the biodiversity and climate nexus, including potential synergies and trade-offs?	**Kunming-Montreal Biodiversity Framework - Target 1.** Ensure that all areas are under participatory integrated biodiversity inclusive spatial planning and/or effective management processes addressing land and sea use change, to bring the loss of areas of high biodiversity importance, including ecosystems of high ecological integrity, close to zero by 2030, while respecting the rights of indigenous peoples and local communities. **Kunming-Montreal Biodiversity Framework – Target 12**. Significantly increase the area and quality and connectivity of, access to, and benefits from green and blue spaces in urban and densely populated areas sustainably, by mainstreaming the conservation and sustainable use of biodiversity, and ensure biodiversity-inclusive urban planning, enhancing native biodiversity, ecological connectivity and integrity, and improving human health and well-being and connection to nature and contributing to inclusive and sustainable urbanization and the provision of ecosystem functions and services. **United Nations Sustainable Development Goals - SDG 13.** Take urgent action to combat climate change and its impacts **United Nations Sustainable Development Goals - SDG 14.** Conserve and sustainably use the oceans, seas and marine resources for sustainable development **United Nations Sustainable Development Goals - SDG 15.** Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss • **Target 15.1** By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements • **Target 15.2** By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally • **Target 15.3** By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world • **Target 15.4** By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development • **Target 15.5** Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species • **Target 15.7** Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products • **Target 15.8** By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species **Target 15.9** By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts

Nexus thematic area / Potential audit subject	Potential audit questions	Source(s) criteria[1]
	• Have ecosystem and biodiversity values been integrated into national planning, development processes, etc.? Do these values include considerations on the biodiversity and climate nexus, including potential synergies and trade-offs?	• **Target 15.a** Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems • **Target 15.b** Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation • **Target 15.c** Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities **Paris Agreement Article 2.** This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by: (a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change; (b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; […] **Paris Agreement Article 8.** 1. Parties recognize the importance of averting, minimizing and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events, and the role of sustainable development in reducing the risk of loss and damage. **IPBES-IPCC Co-Sponsored Workshop Biodiversity and Climate Change Workshop conclusions** • 1. Increasing energy consumption, overexploitation of natural resources and unprecedented transformation of land-, freshwater- and seascapes over the past 150 years have paralleled technological advances and supported better living standards for many but have also led to changes in climate and the accelerating decline of biological diversity worldwide, both negatively impacting many aspects of good quality of life. • 9. The area of intact and effectively protected land and ocean required to meet the three objectives of a habitable climate, self-sustaining biodiversity, and a good quality of life is as yet not well established. • 10. Actions to protect, sustainably manage and restore natural and modified ecosystems that address societal challenges such as climate mitigation and adaptation are often referred to as nature-based solutions. Nature-based solutions (NbS) can play an important role in climate mitigation, but the extent is debated, and they can only be effective with ambitious reductions in all human-caused greenhouse gas emissions. Nature-based solutions can be most effective when planned for longevity and not narrowly focused on rapid carbon sequestration. • 12. Avoiding and reversing the loss and degradation of carbon- and species-rich ecosystems on land and in the ocean is of highest importance for combined biodiversity protection and climate change mitigation actions with large adaptation co-benefits. • 16. In both land and marine systems, options exist to combine nature-based and technology-based measures for climate change mitigation and adaptation, while contributing to biodiversity.

Nexus thematic area / Potential audit subject	Potential audit questions	Source(s) criteria[1]
		• 18. Planting bioenergy crops (including trees, perennial grasses or annual crops) in monocultures over a very large share of total land area is detrimental to ecosystems, reduces supply of many other nature's contributions to people and impedes achievement of numerous Sustainable Development Goals. • 19. Afforestation, which involves planting trees in ecosystems that have not historically been forests, and reforestation with monocultures, especially with exotic tree species, can contribute to climate change mitigation but are often detrimental to biodiversity and do not have clear benefits for adaptation. • 25. Active management in conservation, such as through altering wildfire frequency or reintroducing key species can be beneficial for both biodiversity and climate mitigation and adaptation but can be antagonistic in some contexts. • 26. Achieving synergistic benefits and trade-offs between biodiversity conservation, ecosystem service enhancement and climate change mitigation is strongly dependent on which biomes, ecosystem uses, and sectoral interactions are under consideration. • 27. Locally motivated biodiversity conservation actions can be incentivized, guided and prioritized by global objectives and targets, such as climate benefits. Every local initiative matters, since the benefits of many small, local biodiversity measures accumulate at the global level. • 31. Under the effects of biodiversity loss and climate change, crucial (hard to reverse or irreversible) thresholds (tipping points) can be exceeded with dire consequences for people and nature, but positive social tipping interventions can help attain desirable biodiversity-climate interactions. **IUCN Standard 3 -** Nature-based Solutions result in a net gain to biodiversity and ecosystem integrity
Restoration	• Are degraded terrestrial, inland water, and coastal and marine ecosystems being restored effectively, to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity? Is climate change being considered as part of restoration (e.g., carbon capture)? • Are targets for ecological integrity / connectivity improvements established or incorporated? • Are measures in place to restore, maintain and enhance ecosystem functions and services (e.g., regulation of air, water, and climate, soil health, pollination and reduction of disease risk, as well as protection from natural hazards and disasters)? Has climate impacts been considered in these actions?	**Kunming-Montreal Biodiversity Framework - Target 2.** Ensure that by 2030 at least 30 per cent of areas of degraded terrestrial, inland water, and coastal and marine ecosystems are under effective restoration, in order to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity. **Kunming-Montreal Biodiversity Framework – Target 11.** Restore, maintain and enhance nature's contributions to people, including ecosystem functions and services, such as regulation of air, water, and climate, soil health, pollination and reduction of disease risk, as well as protection from natural hazards and disasters, through nature-based solutions and ecosystem-based approaches for the benefit of all people and nature. **United Nations Sustainable Development Goals - SDG 13.** Take urgent action to combat climate change and its impacts **United Nations Sustainable Development Goals - SDG 14.** Conserve and sustainably use the oceans, seas and marine resources for sustainable development **United Nations Sustainable Development Goals - SDG 15.** Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Nexus thematic area / Potential audit subject	Potential audit questions	Source(s) criteria[1]
		Paris Agreement Article 2. This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by: (a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change; (b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; […] **IPBES-IPCC Co-Sponsored Workshop Biodiversity and Climate Change Workshop conclusions** • 10. Actions to protect, sustainably manage and restore natural and modified ecosystems that address societal challenges such as climate mitigation and adaptation are often referred to as nature-based solutions. Nature-based solutions (NbS) can play an important role in climate mitigation, but the extent is debated, and they can only be effective with ambitious reductions in all human-caused greenhouse gas emissions. Nature-based solutions can be most effective when planned for longevity and not narrowly focused on rapid carbon sequestration. • 12. Avoiding and reversing the loss and degradation of carbon- and species-rich ecosystems on land and in the ocean is of highest importance for combined biodiversity protection and climate change mitigation actions with large adaptation co-benefits. • 13. Restoring carbon- and species-rich ecosystems on land and in the ocean is also highly effective for both climate change mitigation and biodiversity, with large adaptation co-benefits. • 19. Afforestation, which involves planting trees in ecosystems that have not historically been forests, and reforestation with monocultures, especially with exotic tree species, can contribute to climate change mitigation but are often detrimental to biodiversity and do not have clear benefits for adaptation **IUCN Standard 3 -** Nature-based Solutions result in a net gain to biodiversity and ecosystem integrity
Protected areas / Species at risk	• If the country has committed to protecting 30 percent of terrestrial, inland water, and of coastal and marine areas: ○ Is the country set to meet its goal? ○ How have areas of importance for biodiversity and ecosystem functions – including those related to climate regulation – been considered?	**Kunming-Montreal Biodiversity Framework – Target 3.** Ensure and enable that by 2030 at least 30 per cent of terrestrial, inland water, and of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other effective area-based conservation measures, recognizing indigenous and traditional territories, where applicable, and integrated into wider landscapes, seascapes and the ocean, while ensuring that any sustainable use, where appropriate in such areas, is fully consistent with conservation outcomes, recognizing and respecting the rights of indigenous peoples and local communities including over their traditional territories.

Nexus thematic area / Potential audit subject	Potential audit questions	Source(s) criteria[1]
	○ How has habitat connectivity been considered? ○ Are the use of these areas assessed to ensure they are sustainable? • Are management actions in place to recover and conserve species at risk? • Are climate change mitigation actions considered potential synergies with species at risk recovery and conservation?	**Kunming-Montreal Biodiversity Framework - Target 4.** Ensure urgent management actions, to halt human induced extinction of known threatened species and for the recovery and conservation of species, in particular threatened species, to significantly reduce extinction risk, as well as to maintain and restore the genetic diversity within and between populations of native, wild and domesticated species to maintain their adaptive potential, including through in situ and ex situ conservation and sustainable management practices, and effectively manage human-wildlife interactions to minimize human-wildlife conflict for coexistence.  **United Nations Sustainable Development Goals - SDG 13.** Take urgent action to combat climate change and its impacts **United Nations Sustainable Development Goals - SDG 14.** Conserve and sustainably use the oceans, seas and marine resources for sustainable development **United Nations Sustainable Development Goals - SDG 15.** Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss **Paris Agreement Article 2.** This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by: (a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change; (b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; […] **Paris Agreement Article 8.** 1. Parties recognize the importance of averting, minimizing and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events, and the role of sustainable development in reducing the risk of loss and damage. **IPBES-IPCC Co-Sponsored Workshop Biodiversity and Climate Change Workshop conclusions** • 1. Increasing energy consumption, overexploitation of natural resources and unprecedented transformation of land-, freshwater- and seascapes over the past 150 years have paralleled technological advances and supported better living standards for many but have also led to changes in climate and the accelerating decline of biological diversity worldwide, both negatively impacting many aspects of good quality of life. • 7. Biodiversity conservation approaches such as Protected Areas have been essential for successes to date, but, on aggregate, have been insufficient to stem the loss of biodiversity at a global scale. • 9. The area of intact and effectively protected land and ocean required to meet the three objectives of a habitable climate, self-sustaining biodiversity, and a good quality of life is as yet not well established.

Nexus thematic area / Potential audit subject	Potential audit questions	Source(s) criteria[1]
		• 10. Actions to protect, sustainably manage and restore natural and modified ecosystems that address societal challenges such as climate mitigation and adaptation are often referred to as nature-based solutions. Nature-based solutions (NbS) can play an important role in climate mitigation, but the extent is debated, and they can only be effective with ambitious reductions in all human-caused greenhouse gas emissions. Nature-based solutions can be most effective when planned for longevity and not narrowly focused on rapid carbon sequestration. • 12. Avoiding and reversing the loss and degradation of carbon- and species-rich ecosystems on land and in the ocean is of highest importance for combined biodiversity protection and climate change mitigation actions with large adaptation co-benefits. • 13. Restoring carbon- and species-rich ecosystems on land and in the ocean is also highly effective for both climate change mitigation and biodiversity, with large adaptation co-benefits. • 19. Afforestation, which involves planting trees in ecosystems that have not historically been forests, and reforestation with monocultures, especially with exotic tree species, can contribute to climate change mitigation but are often detrimental to biodiversity and do not have clear benefits for adaptation. • 24. Protected areas are an important instrument to address biodiversity loss, with climate mitigation and adaptation co-benefits.  **IUCN Standard 3 -** Nature-based Solutions result in a net gain to biodiversity and ecosystem integrity
Use and harvest	Sustainable harvesting • Are policies and plans in place to ensure the sustainable harvest of wild species and prevention of overexploitation? • Have policies related to the management and use of wild species taken into account vulnerable and affected peoples, including indigenous peoples and local communities? Agriculture, aquaculture, fisheries and forestry • Are areas under agriculture, aquaculture, fisheries and forestry being managed sustainably, to contribute to resilience of these production systems? • Have plans and strategies related to ocean, sea and marine management considered the biodiversity and climate nexus, including potential synergies and trade-offs?	 **Kunming-Montreal Biodiversity Framework – Target 5.** Ensure that the use, harvesting and trade of wild species is sustainable, safe and legal, preventing overexploitation, minimizing impacts on non-target species and ecosystems, and reducing the risk of pathogen spill-over, applying the ecosystem approach, while respecting and protecting customary sustainable use by indigenous peoples and local communities. **Kunming-Montreal Biodiversity Framework – Target 9.** Ensure that the management and use of wild species are sustainable, thereby providing social, economic and environmental benefits for people, especially those in vulnerable situations and those most dependent on biodiversity, including through sustainable biodiversity-based activities, products and services that enhance biodiversity, and protecting and encouraging customary sustainable use by indigenous peoples and local communities. **Kunming-Montreal Biodiversity Framework – Target 10.** Ensure that areas under agriculture, aquaculture, fisheries and forestry are managed sustainably, in particular through the sustainable use of biodiversity, including through a substantial increase of the application of biodiversity friendly practices, such as sustainable intensification, agroecological and other innovative approaches contributing to the resilience and long-term efficiency and productivity of these production systems and to food security, conserving and restoring biodiversity and maintaining nature's contributions to people, including ecosystem functions and services. **Kunming-Montreal Biodiversity Framework – Target 13.** Take effective legal, policy, administrative and capacity-building measures at all levels, as appropriate, to ensure the fair and equitable sharing of benefits that arise from the utilization of genetic resources and from digital sequence information on genetic resources, as well as traditional knowledge associated with genetic resources, and facilitating appropriate access to genetic resources, and by 2030 facilitating a significant increase of the benefits shared, in accordance with applicable international access and benefit-sharing instruments.

Nexus thematic area / Potential audit subject	Potential audit questions	Source(s) criteria[1]
	Climate change response and mitigation • Has the government increased ability for climate change adaptation, improved climate resilience, and fostered low greenhouse gas emissions development - in a manner that does not threaten food production? • Has the government taken action to conserve and enhance forests (as sinks or resevoirs of greenhouse gases, and to conserve non-carbon benefits? Biosafety measures • Have biosafety measures been established and implemented, including measures for the handling of biotechnology and distribution of its benefits?	**Kunming-Montreal Biodiversity Framework – Target 16.** Ensure that people are encouraged and enabled to make sustainable consumption choices including by establishing supportive policy, legislative or regulatory frameworks, improving education and access to relevant and accurate information and alternatives, and by 2030, reduce the global footprint of consumption in an equitable manner, halve global food waste, significantly educe overconsumption and substantially reduce waste generation, in order for all people to live well in harmony with Mother Earth. **Kunming-Montreal Biodiversity Framework – Target 17.** Establish, strengthen capacity for, and implement in all countries in biosafety measures as set out in Article 8(g) of the Convention on Biological Diversity and measures for the handling of biotechnology and distribution of its benefits as set out in Article 19 of the Convention.  **United Nations Sustainable Development Goals - SDG 13.** Take urgent action to combat climate change and its impacts **United Nations Sustainable Development Goals - SDG 14.** Conserve and sustainably use the oceans, seas and marine resources for sustainable development **United Nations Sustainable Development Goals - SDG 15.** Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss United Nations Climate Change **Paris Agreement Article 2.** This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by: (a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change; (b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; […] **Paris Agreement Article 5** 1. Parties should take action to conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases as referred to in Article 4, paragraph 1 (d), of the Convention, including forests. Parties are encouraged to take action to implement and support, including through results-based payments, the existing framework as set out in related guidance and decisions already agreed under the Convention for: policy approaches and positive incentives for activities relating to reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries; and alternative policy approaches, such as joint mitigation and adaptation approaches for the integral and sustainable management of forests, while reaffirming the importance of incentivizing, as appropriate, non-carbon benefits associated with such approaches.

Nexus thematic area / Potential audit subject	Potential audit questions	Source(s) criteria[1]
		IPBES-IPCC Co-Sponsored Workshop Biodiversity and Climate Change Workshop conclusions • 1. Increasing energy consumption, overexploitation of natural resources and unprecedented transformation of land-, freshwater- and seascapes over the past 150 years have paralleled technological advances and supported better living standards for many but have also led to changes in climate and the accelerating decline of biological diversity worldwide, both negatively impacting many aspects of good quality of life. • 14. Sustainable agricultural and forestry practices can improve adaptive capacity, enhance biodiversity, increase carbon storage in farmland and forest soils and vegetation, and reduce greenhouse gas emissions. • 18. Planting bioenergy crops (including trees, perennial grasses or annual crops) in monocultures over a very large share of total land area is detrimental to ecosystems, reduces supply of many other nature's contributions to people and impedes achievement of numerous Sustainable Development Goals. • 19. Afforestation, which involves planting trees in ecosystems that have not historically been forests, and reforestation with monocultures, especially with exotic tree species, can contribute to climate change mitigation but are often detrimental to biodiversity and do not have clear benefits for adaptation. • 20. Technology-based measures that are effective for climate change mitigation can pose serious threats to biodiversity.
Invasive species	• Are plans in place to eliminate, reduce or mitigate risks of invasive species on biodiversity? • Have policies related to invasive species taken into account vulnerable and affected peoples, including indigenous peoples and local communities?	**Kunming-Montreal Biodiversity Framework - Target 6.** Eliminate, minimize, reduce and or mitigate the impacts of invasive alien species on biodiversity and ecosystem services by identifying and managing pathways of the introduction of alien species, preventing the introduction and establishment of priority invasive alien species, reducing the rates of introduction and establishment of other known or potential invasive alien species by at least 50 percent, by 2030, eradicating or controlling invasive alien species especially in priority sites, such as islands. **United Nations Sustainable Development Goals - SDG 14.** Conserve and sustainably use the oceans, seas and marine resources for sustainable development **United Nations Sustainable Development Goals - SDG 15.** Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss **Paris Agreement Article 2.** This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by: (a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;

Nexus thematic area / Potential audit subject	Potential audit questions	Source(s) criteria[1]
		(b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; […] IPBES-IPCC Co-Sponsored Workshop Biodiversity and Climate Change Workshop conclusions • 19. Afforestation, which involves planting trees in ecosystems that have not historically been forests, and reforestation with monocultures, especially with exotic tree species, can contribute to climate change mitigation but are often detrimental to biodiversity and do not have clear benefits for adaptation
Pollution	• Are controls in place for pollution risks and the negative impacts of pollution? • Are pollution management and reduction considering the biodiversity and climate nexus, including potential synergies and trade-offs? • Have policies related to pollution taken into account vulnerable and affected peoples, including indigenous peoples and local communities?	**Kunming-Montreal Biodiversity Framework – Target 7.** Reduce pollution risks and the negative impact of pollution from all sources, by 2030, to levels that are not harmful to biodiversity and ecosystem functions and services, considering cumulative effects, including: reducing excess nutrients lost to the environment by at least half including through more efficient nutrient cycling and use; reducing the overall risk from pesticides and highly hazardous chemicals by at least half including through integrated pest management, based on science, taking into account food security and livelihoods; and also preventing, reducing, and working towards eliminating plastic pollution. **Paris Agreement Article 2.** This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by: (a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change; (b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; […] **Paris Agreement Article 4.** In order to achieve the long-term temperature goal set out in Article 2, Parties aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty. **Paris Agreement Article 7.** 4. Parties recognize that the current need for adaptation is significant and that greater levels of mitigation can reduce the need for additional adaptation efforts, and that greater adaptation needs can involve greater adaptation costs. **IPBES-IPCC Co-Sponsored Workshop Biodiversity and Climate Change Workshop conclusions**

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		• 5. The adaptive capacity of most ecosystems and social-ecological systems will be exceeded by unabated anthropogenic climate change, and significant adaptive capacity will be required to cope with residual climate change even under ambitious emissions reduction • 10. Actions to protect, sustainably manage and restore natural and modified ecosystems that address societal challenges such as climate mitigation and adaptation are often referred to as nature-based solutions. Nature-based solutions (NbS) can play an important role in climate mitigation, but the extent is debated, and they can only be effective with ambitious reductions in all human-caused greenhouse gas emissions. Nature-based solutions can be most effective when planned for longevity and not narrowly focused on rapid carbon sequestration. • 28. Changes in per capita consumption, shift in diets, and progress towards sustainable exploitation of natural resources, including reduced post-harvest waste, could make substantial contributions to addressing the biodiversity crisis, climate change mitigation and adaptation
Climate change mitigation and adaptation	Climate change mitigation and adaptation • Have mitigation and adaptation actions (e.g., nature-based solutions) been planned and implemented to minimize impact of climate change and ocean acidification on biodiversity? • Have mitigation and adaptation actions (e.g., nature-based solutions) been planned and implemented that minimize negative and foster positive impacts of climate action on biodiversity? Climate change adaptation • What actions are underway or have been completed to strengthen resilience and adaptive capacity to climate-related hazards and natural disasters? Has biodiversity been considered in these actions? • Have policies encouraged enhancement of existing adaptive capacity, strengthening resilience and reducing vulnerability to climate change – while balancing biodiversity considerations? Clean and renewable energy • Do the clean and renewable energy plans consider impacts on biodiversity?	**Kunming-Montreal Biodiversity Framework – Target 8.** Minimize the impact of climate change and ocean acidification on biodiversity and increase its resilience through mitigation, adaptation, and disaster risk reduction actions, including through nature-based solution and/or ecosystem-based approaches, while minimizing negative and fostering positive impacts of climate action on biodiversity. **United Nations Sustainable Development Goals - SDG 13.1** Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries **United Nations Sustainable Development Goals - SDG 14.** Conserve and sustainably use the oceans, seas and marine resources for sustainable development **United Nations Sustainable Development Goals - SDG 15.** Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss **Paris Agreement Article 2.** This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by: (a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change; (b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; and (c) Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development **Paris Agreement Article 4.** In order to achieve the long-term temperature goal set out in Article 2, Parties aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and

Nexus thematic area / Potential audit subject	Potential audit questions	Source(s) criteria[1]
	• Do the clean and renewable energy production and usage increase considered biodiversity and climate nexus, including potential synergies and trade-offs? Has biodiversity been considered in these actions?	removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty. **Paris Agreement Article 6.** 1. Parties recognize that some Parties choose to pursue voluntary cooperation in the implementation of their nationally determined contributions to allow for higher ambition in their mitigation and adaptation actions and to promote sustainable development and environmental integrity. 2. Parties shall, where engaging on a voluntary basis in cooperative approaches that involve the use of internationally transferred mitigation outcomes towards nationally determined contributions, promote sustainable development and ensure environmental integrity and transparency, including in governance, and shall apply robust accounting to ensure, inter alia, the avoidance of double counting, consistent with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement. **Paris Agreement Article 7.** 1. Parties hereby establish the global goal on adaptation of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing to sustainable development and ensuring an adequate adaptation response in the context of the temperature goal referred to in Article 2. 5. Parties acknowledge that adaptation action should follow a country-driven, gender-responsive, participatory and fully transparent approach, taking into consideration vulnerable groups, communities and ecosystems, and should be based on and guided by the best available science and, as appropriate, traditional knowledge, knowledge of indigenous peoples and local knowledge systems, with a view to integrating adaptation into relevant socioeconomic and environmental policies and actions, where appropriate. **Paris Agreement Article 8.** 1. Parties recognize the importance of averting, minimizing and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events, and the role of sustainable development in reducing the risk of loss and damage. **Paris Agreement Article 10.** 1. Parties share a long-term vision on the importance of fully realizing technology development and transfer in order to improve resilience to climate change and to reduce greenhouse gas emissions. 2. Parties, noting the importance of technology for the implementation of mitigation and adaptation actions under this Agreement and recognizing existing technology deployment and dissemination efforts, shall strengthen cooperative action on technology development and transfer.
Policy integration and coherence	International framework • Have biodiversity and climate values (aligned with international commitments) been integrated into policies at national and sub-national levels? Are they considering the biodiversity and climate nexus, including potential synergies and trade-offs? Enabling policies for private and financial sector • Do national policies require climate- and/or biodiversity-related financial disclosures by large companies and financial institutions, or other	**Kunming-Montreal Biodiversity Framework – Target 14.** Ensure the full integration of biodiversity and its multiple values into policies, regulations, planning and development processes, poverty eradication strategies, strategic environmental assessments, environmental impact assessments and, as appropriate, national accounting, within and across all levels of government and across all sectors, in particular those with significant impacts on biodiversity, progressively aligning all relevant public and private activities, fiscal and financial flows with the goals and targets of this framework. **Kunming-Montreal Biodiversity Framework – Target 15.** Take legal, administrative or policy measures to encourage and enable business, and in particular to ensure that large and transnational companies and financial institutions: a) Regularly monitor, assess, and transparently disclose their risks, dependencies and impacts on biodiversity including with requirements for all large as well as transnational companies and financial institutions along their operations, supply and value chains and portfolios; b) Provide information needed to consumers to promote sustainable consumption patterns;

Nexus thematic area / Potential audit subject	Potential audit questions	Source(s) criteria[1]
	related reporting and monitoring of their impacts on biodiversity and climate? Policy coherence • Are policies and programs in place to eliminate or phase out harmful subsidies and incentives, and scale up positive ones? • Is there any monitoring of potential unintended consequences or policy incoherence instances of the action undertaken? • Are costs and benefits of the action documented? Will it be conducted periodically? • Is there any monitoring of potential unintended consequences or policy incoherence instances of the action undertaken? • Are targets for ecological integrity / connectivity improvements established or incorporated? • Is risk identification and risk management integrated into the program design? • Were alternatives solutions considered during action design? National policies • Have climate change measures been adopted into national policies, strategies and planning? If so, do the climate change measures reflect the biodiversity and climate nexus? • Have national policies incorporated international climate goals, such as commitments under the Paris Agreement, while also considering trade-offs (e.g., biodiversity)?	c) Report on compliance with access and benefit-sharing regulations and measures, as applicable; in order to progressively reduce negative impacts on biodiversity, increase positive impacts, reduce biodiversity-related risks to business and financial institutions, and promote actions to ensure sustainable patterns of production. **Kunming-Montreal Biodiversity Framework – Target 18.** Identify by 2025, and eliminate, phase out or reform incentives, including subsidies harmful for biodiversity, in a proportionate, just, fair, effective and equitable way, while substantially and progressively reducing them by at least 500 billion United States dollars per year by 2030, starting with the most harmful incentives, and scale up positive incentives for the conservation and sustainable use of biodiversity.  **United Nations Sustainable Development Goals – SDG 12c** Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities **United Nations Sustainable Development Goals - SDG 13.2** Integrate climate change measures into national policies, strategies and planning • **Indicator 13.2.1** Number of countries with nationally determined contributions, long-term strategies, national adaptation plans and adaptation communications, as reported to the secretariat of the United Nations Framework Convention on Climate Change • **Indicator 13.2.2** Total greenhouse gas emissions per year **United Nations Sustainable Development Goals - SDG 14.** Conserve and sustainably use the oceans, seas and marine resources for sustainable development **United Nations Sustainable Development Goals - SDG 15.** Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss United Nations Climate Change **Paris Agreement Article 2.** This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by: (a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change; (b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production. **Paris Agreement Article 3.** As nationally determined contributions to the global response to climate change, all Parties are to undertake and communicate ambitious efforts as defined in Articles 4, 7, 9, 10, 11 and 13 with the view to achieving the purpose of this Agreement as set out in

Nexus thematic area / Potential audit subject	Potential audit questions	Source(s) criteria[1]
		Article 2. The efforts of all Parties will represent a progression over time, while recognizing the need to support developing country Parties for the effective implementation of this Agreement. **Paris Agreement Article 4.** In order to achieve the long-term temperature goal set out in Article 2, Parties aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty. **Paris Agreement Article 6.** 1. Parties recognize that some Parties choose to pursue voluntary cooperation in the implementation of their nationally determined contributions to allow for higher ambition in their mitigation and adaptation actions and to promote sustainable development and environmental integrity. 2. Parties shall, where engaging on a voluntary basis in cooperative approaches that involve the use of internationally transferred mitigation outcomes towards nationally determined contributions, promote sustainable development and ensure environmental integrity and transparency, including in governance, and shall apply robust accounting to ensure, inter alia, the avoidance of double counting, consistent with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement. **IPBES-IPCC Co-Sponsored Workshop Biodiversity and Climate Change Workshop conclusions** • 31. Under the effects of biodiversity loss and climate change, crucial (hard to reverse or irreversible) thresholds (tipping points) can be exceeded with dire consequences for people and nature, but positive social tipping interventions can help attain desirable biodiversity-climate interactions. • 32. When considering biodiversity-climate-society interactions, it is important to examine how the linkages between policy decisions and consequences unfold over time and how they act beyond the specific spatial context. • 33. Assessing the range of viable solutions ('solution space') to achieve the intended climate mitigation, adaptation and biodiversity conservation outcomes, while positively contributing to people's quality of life, requires recognition of differences in social-ecological contexts. **IUCN Standard 3 -** Nature-based Solutions result in a net gain to biodiversity and ecosystem integrity **IUCN Standard 4 -** Nature-based Solutions are economically viable **IUCN Standard 6 -** Nature-based Solutions equitably balance trade-offs between achievement of their primary goal(s) and the continued provision of multiple benefits
Financial resources	Financial ressources and incentives • Are financial resources in place to implement national biodiversity strategies and action plans? • Are the private sector encouraged to invest in biodiversity, including through impact funds and other instruments?	**Kunming-Montreal Biodiversity Framework – Target 18.** Identify by 2025, and eliminate, phase out or reform incentives, including subsidies harmful for biodiversity, in a proportionate, just, fair, effective and equitable way, while substantially and progressively reducing them by at least 500 billion United States dollars per year by 2030, starting with the most harmful incentives, and scale up positive incentives for the conservation and sustainable use of biodiversity. **Kunming-Montreal Biodiversity Framework – Target 19.** Substantially and progressively increase the level of financial resources from all sources, in an effective, timely and easily accessible manner, including domestic, international, public and private resources, in accordance with

Nexus thematic area / Potential audit subject	Potential audit questions	Source(s) criteria[1]
	• Are stimulating innovative schemes such as payment for ecosystem services, green bonds, biodiversity offsets and credits, benefit-sharing mechanisms, with environmental and social safeguards considered or implemented? • Have an optimizing exercise to assess co-benefits and synergies of finance targeting the biodiversity and climate crises been conducted? Financial integrity, stewardship and performance-based budgeting • How does the government ensure that climate adaptation funds are not redirected to unrelated expenses? • How does the government ensure coordination between donors, implementing agencies, and local communities to prevent project duplication or misallocation of resources? • How does the government ensure that funding conditions align with national biodiversity and climate priorities? • Are climate and biodiversity projects funded based on achievable, measurable targets? Sustainable development and clean energy • Have policies encouraged finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development? Carbon sink • Have policy approaches created positive incentives for activities relating to reducing emissions from deforestation and forest degradation, including non-carbon benefits?	Article 20 of the Convention, to implement national biodiversity strategies and action plans, by 2030 mobilizing at least 200 billion United States dollars per year, including by: a) Increasing total biodiversity related international financial resources from developed countries, including official development assistance, and from countries that voluntarily assume obligations of developed country Parties, to developing countries, in particular the least developed countries and small island developing States, as well as countries with economies in transition, to at least US$ 20 billion per year by 2025, and to at least US$ 30 billion per year by 2030; b) Significantly increasing domestic resource mobilization, facilitated by the preparation and implementation of national biodiversity finance plans or similar instruments according to national needs, priorities and circumstances c) Leveraging private finance, promoting blended finance, implementing strategies for raising new and additional resources, and encouraging the private sector to invest in biodiversity, including through impact funds and other instruments; d) Stimulating innovative schemes such as payment for ecosystem services, green bonds, biodiversity offsets and credits, benefit-sharing mechanisms, with environmental and social safeguards e) Optimizing co-benefits and synergies of finance targeting the biodiversity and climate crises, f) Enhancing the role of collective actions, including by indigenous peoples and local communities, Mother Earth centric actions and non-market-based approaches including community based natural resource management and civil society cooperation and solidarity aimed at the conservation of biodiversity g) Enhancing the effectiveness, efficiency and transparency of resource provision and use; **Kunming-Montreal Biodiversity Framework – Target 20.** Strengthen capacity-building and development, access to and transfer of technology, and promote development of and access to innovation and technical and scientific cooperation, including through South- South, North-South and triangular cooperation, to meet the needs for effective implementation, particularly in developing countries, fostering joint technology development and joint scientific research programmes for the conservation and sustainable use of biodiversity and strengthening scientific research and monitoring capacities, commensurate with the ambition of the goals and targets of the framework. United Nations Climate Change **Paris Agreement Article 2.** This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by: […] (c) Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development. **Paris Agreement Article 5. H** Parties should take action to conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases as referred to in Article 4, paragraph 1 (d), of the Convention, including forests. Parties are encouraged to take action to implement and support, including through results-based payments, the existing framework as set out in related guidance and decisions already agreed under the Convention for: policy approaches and positive incentives for activities relating to reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries; and alternative policy approaches, such as joint mitigation and adaptation approaches for the integral and sustainable management of forests, while reaffirming the importance of incentivizing, as appropriate, non-carbon benefits associated with such approaches.

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	• Have policy approaches created positive incentives for the conservation and sustainable management of forests and enhancement of forest carbon stocks, including non-carbon benefits?	**Paris Agreement Article 6. 2**. Parties shall, where engaging on a voluntary basis in cooperative approaches that involve the use of internationally transferred mitigation outcomes towards nationally determined contributions, promote sustainable development and ensure environmental integrity and transparency, including in governance, and shall apply robust accounting to ensure, inter alia, the avoidance of double counting, consistent with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement. **IUCN Standard 2 –** Design of Nature-based Solutions is informed by scale **IUCN Standard 4 -** Nature-based Solutions are economically viable
Leaving no one behind	International commitments • Are United Nations Sustainable Development Goals linked to action? • Is there a national sustainable development strategy, biodiversity target or climate target linked to action? • Are clear understanding and rationale of the challenges to be addressed documented? Gender-based analysis • Are gender-based analysis undertaken? • Have policies taken into account equal rights of women and girls, including access to land, natural resources and their full, equitable, meaningful and informed participation? Indigenous and vulnerable population • Are Indigenous groups and communities identified, and involved in the development and implementation of the action? • Has access and benefits to green and blue spaces been considered in urban planning, including the connectivity and quality of these spaces (e.g., wellbeing, biodiversity, climate benefits such as increased resilience and carbon capture)?	**Kunming-Montreal Biodiversity Framework – Target 12.** Significantly increase the area and quality and connectivity of, access to, and benefits from green and blue spaces in urban and densely populated areas sustainably, by mainstreaming the conservation and sustainable use of biodiversity, and ensure biodiversity-inclusive urban planning, enhancing native biodiversity, ecological connectivity and integrity, and improving human health and well-being and connection to nature and contributing to inclusive and sustainable urbanization and the provision of ecosystem functions and services. **Kunming-Montreal Biodiversity Framework – Target 13.** Take effective legal, policy, administrative and capacity-building measures at all levels, as appropriate, to ensure the fair and equitable sharing of benefits that arise from the utilization of genetic resources and from digital sequence information on genetic resources, as well as traditional knowledge associated with genetic resources, and facilitating appropriate access to genetic resources, and by 2030 facilitating a significant increase of the benefits shared, in accordance with applicable international access and benefit-sharing instruments. **Kunming-Montreal Biodiversity Framework – Target 21.** Ensure that the best available data, information and knowledge, are accessible to decision makers, practitioners and the public to guide effective and equitable governance, integrated and participatory management of biodiversity, and to strengthen communication, awareness-raising, education, monitoring, research and knowledge management and, also in this context, traditional knowledge, innovations, practices and technologies of indigenous peoples and local communities should only be accessed with their free, prior and informed consent, in accordance with national legislation. **Kunming-Montreal Biodiversity Framework – Target 22.** Ensure the full, equitable, inclusive, effective and gender-responsive representation and participation in decision-making, and access to justice and information related to biodiversity by indigenous peoples and local communities, respecting their cultures and their rights over lands, territories, resources, and traditional knowledge, as well as by women and girls, children and youth, and persons with disabilities and ensure the full protection of environmental human rights defenders. **Kunming-Montreal Biodiversity Framework – Target 23.** Ensure gender equality in the implementation of the framework through a gender-responsive approach where all women and girls have equal opportunity and capacity to contribute to the three objectives of the Convention, including by recognizing their equal rights and access to land and natural resources and their full, equitable, meaningful and informed participation and leadership at all levels of action, engagement, policy and decision-making related to biodiversity. **United Nations Sustainable Development Goals - SDG 17.** Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

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	• Is best available data provided to all participants in decision making processes? • Have measures been taken to identify vulnerable populations and inequities? • Have measures been taken to ensure the equitable sharing of benefits that arise from the utilization of genetic resources? • Have policies taken into account equitable, inclusive rights of indigenous peoples and local communities in decision making, including access to justice, respecting cultures, and rights over lands, territories, resources, and traditional knowledge? • Are affected stakeholders and communities identified and involved in action design? • Are results of consultations / engagement processes, including how input was considered, documented? • Is other jurisdictions collaboration in place to ensure coherency and consistency of the action across administrative boundaries?	**Paris Agreement Article 2.** This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by: (a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change; (b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; […] **Paris Agreement Article 3.** As , defined in Articles 4, 7, 9, 10, 11 and 13 with the view to achieving the purpose of this Agreement as set out in Article 2. The efforts of all Parties will represent a progression over time, while recognizing the need to support developing country Parties for the effective implementation of this Agreement. **Paris Agreement Article 6.** 2. Parties shall, where engaging on a voluntary basis in cooperative approaches that involve the use of internationally transferred mitigation outcomes towards nationally determined contributions, promote sustainable development and ensure environmental integrity and transparency, including in governance, and shall apply robust accounting to ensure, inter alia, the avoidance of double counting, consistent with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement. **Paris Agreement Article 7.** 5. Parties acknowledge that adaptation action should follow a country-driven, gender-responsive, participatory and fully transparent approach, taking into consideration vulnerable groups, communities and ecosystems, and should be based on and guided by the best available science and, as appropriate, traditional knowledge, knowledge of indigenous peoples and local knowledge systems, with a view to integrating adaptation into relevant socioeconomic and environmental policies and actions, where appropriate. **IPBES-IPCC Co-Sponsored Workshop Biodiversity and Climate Change Workshop conclusions** • 30. The explicit consideration of the interactions between biodiversity, climate and society in policy decisions provides opportunities to maximize co-benefits and to minimize trade-offs and co-detrimental (mutually harmful) effects for people and nature. • 32. When considering biodiversity-climate-society interactions, it is important to examine how the linkages between policy decisions and consequences unfold over time and how they act beyond the specific spatial context. • 33. Assessing the range of viable solutions ('solution space') to achieve the intended climate mitigation, adaptation and biodiversity conservation outcomes, while positively contributing to people's quality of life, requires recognition of differences in social-ecological contexts. • 34. In the presence of strong and apparently unavoidable trade-offs within the biodiversity-climate-society nexus, promoting social tipping interventions to modify the ways society and nature interact can be a viable joint solution. • 35. While integrated solutions for the biodiversity-climate nexus exist that also have co-benefits in terms of sustainable development and meeting basic needs of the poor and vulnerable, governing and financing these nexus approaches is challenging.

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		IUCN Standard 1 – Nature-based Solutions effectively address societal challenges **IUCN Standard 5 -** Nature-based Solutions are based on inclusive, transparent and empowering governance processes **IUCN Standard 8 -** Nature-based Solutions are sustainable and mainstreamed within an appropriate jurisdictional context
Education and awareness	• Have efforts been made in improving education and awareness on climate change mitigation, adaptation and the biodiversity and climate nexus? • Has access to accurate information and improved public education been considered in supporting reduction of waste and consumption? • Has the country established supportive policy, legislative or regulatory frameworks to ensure encouraged and enabled to make sustainable consumption?	**Kunming-Montreal Biodiversity Framework – Target 16.** Ensure that people are encouraged and enabled to make sustainable consumption choices including by establishing supportive policy, legislative or regulatory frameworks, improving education and access to relevant and accurate information and alternatives, and by 2030, reduce the global footprint of consumption in an equitable manner, halve global food waste, significantly educe overconsumption and substantially reduce waste generation, in order for all people to live well in harmony with Mother Earth. **United Nations Sustainable Development Goals - SDG 13.3** Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning • **Indicator 13.3.1** Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment **Paris Agreement Article 6.** 1. Parties recognize that some Parties choose to pursue voluntary cooperation in the implementation of their nationally determined contributions to allow for higher ambition in their mitigation and adaptation actions and to promote sustainable development and environmental integrity. 2. Parties shall, where engaging on a voluntary basis in cooperative approaches that involve the use of internationally transferred mitigation outcomes towards nationally determined contributions, promote sustainable development and ensure environmental integrity and transparency, including in governance, and shall apply robust accounting to ensure, inter alia, the avoidance of double counting, consistent with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement. **Paris Agreement Article 12.** Parties shall cooperate in taking measures, as appropriate, to enhance climate change education, training, public awareness, public participation and public access to information, recognizing the importance of these steps with respect to enhancing actions under this Agreement. **IPBES-IPCC Co-Sponsored Workshop Biodiversity and Climate Change Workshop conclusions** • 39. Transformative change can occur using leverage points in socio-ecological systems which alter future trajectories.