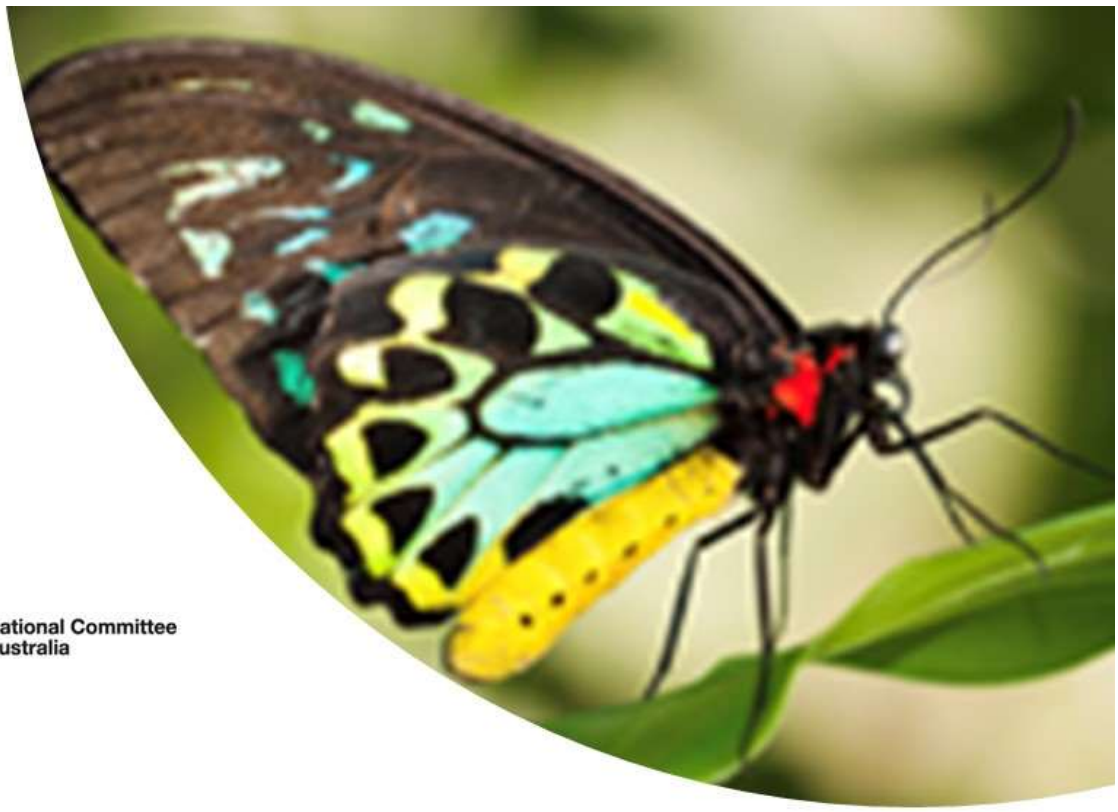

IUCN National Committee Australia

Post-2020 Global Biodiversity Framework Workshop:

Australia

Workshop Report & Analysis

AUSTRALIAN CONSERVATION FOUNDATION

IUCN WCPA WORLD COMMISSION ON PROTECTED AREAS

DEAKIN UNIVERSITY

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Acknowledgement of Country:
The *workshop commenced with an acknowledgement of country. The workshop facilitators, speakers and participants joined virtually from traditional lands across Australia. This report was primarily written on the traditional lands of the Wurundjeri people of the Kulin nation. We pay our respect to Elders past, present, and future of the traditional lands from which all the workshop attendees and contributors were based.*

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Post-2020 Global Biodiversity Framework Workshop: Australia

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1. Introduction

Peter Cochrane, IUCN Councillor opening statement

Conserving and restoring biodiversity is now recognised as essential to support a healthy planet and people's wellbeing. The relationship between protecting and restoring nature and addressing climate change is well recognised in climate agreements and many international fora. For instance, the 2015 Paris Agreement[1] includes protecting and conserving ecosystems in mitigation and adaptation actions, and the 2021 Glasgow Climate Pact[2] noted the importance of ensuring the integrity of all ecosystems, protecting biodiversity, and conserving and restoring nature and ecosystems. There is now a comparable urgency to addressing both climate change and biodiversity loss.

The Convention on Biological Diversity's (CBD) Strategic Plan for 2011-2020 included the Aichi Biodiversity Targets, a set of 20 targets outlining the global agenda for biodiversity conservation for the decade[3]. Several targets successfully drove concerted global action to protect and conserve biodiversity. Yet overall, the targets were only partially met at best, and the rate of biodiversity loss was not reduced[4]. More ambitious targets and their effective implementation are essential to make substantial progress towards halting biodiversity loss and restoring degraded ecosystems.

The post-2020 global biodiversity framework (GBF) is currently being negotiated to supersede the Aichi Biodiversity Targets. As governments focus on the negotiations, the private sector, in particular the finance and insurance sectors, have become more aware of the dependence of economies on nature, and the risks faced by businesses because of the loss of nature and ecosystem function. The draft, as does the Convention itself, also recognises the unique role of Indigenous peoples and local communities in achieving the CBD goals and the Convention's Vision of living in harmony with nature by 2050.

The first draft of the GBF addresses the three main objectives of the CBD:

1. Conservation of biodiversity,
2. Sustainable use of biodiversity, and
3. Fair and equitable sharing of the benefits arising from the use of genetic resources.

To achieve the three CBD objectives, the GBF outlines four high-level goals for 2050, with associated 2030 milestones, and 21 action targets to achieve the goals, accompanied by a proposed

set of 39 headline, 42 component and 208 complementary indicators to measure progress. Robust and rigorous measures of success are essential for interventions and investments to halt nature loss and restore ecosystem function – for governments and business, and for societies to hold them to account.

2. Purpose and methodology

2.1 Workshop purpose

This document is a synthesis of the contributions from a diverse range of individuals who participated in the Australian Committee for the International Union for Conservation of Nature's (ACIUCN) post-2020 global biodiversity framework (GBF) virtual workshop series on 29th and 30th November 2021. Participants were drawn from across sectors and disciplines, including not-for-profit organisations, governments, and academia[1].

The objectives of the workshop were to:

- Provide a neutral platform to facilitate discussions on the key elements and priorities for the post-2020 GBF from an Australian perspective,
- Provide updates from the Australian Government and key experts on global CBD processes and current sticking points in the negotiations,
- Consider the strengths and weaknesses of the first draft of the post-2020 GBF, and
- Consider the strengths and weaknesses of key aspects of the proposed targets and indicators of the post-2020 GBF.

This report is intended for use by representatives from the Australian government to inform suggested revisions of GBF ahead of the final ratification at the CBD meeting in Kunming, China in 2022. The workshop and this report build on the ACIUCN workshop conducted in 2019 *Starting the conversation on Australia's priorities for the Post-2020 Global Biodiversity Framework*[5].

The workshop and report were supported by the Australian Conservation Foundation (ACF), Deakin University and the IUCN World Commission on Protected Areas (WCPA).

2.2 Method of development

On the 29th and 30th November 2021, a virtual workshop was held to review and discuss the first draft of the post-2020 GBF. Each day the workshops began with a series of short presentations (Section 5 below) by recognised experts from diverse sectors on their perspective on the first draft of the GBF. After the presentations, the participants were divided into small groups to participate in *'café-style'* discussions. Each group was given the opportunity to review and provide feedback on key elements of the first draft of the GBF, including the 2050 Vision, 2030 Mission, 2050 Goals, Targets and Indicators. Due to time constraints, comments were sought on only 17 of 21 targets. Participants were posed the following questions:

[1] ACT Environment Directorate; Australian Marine Conservation Society; Australian National University; Australian Conservation Foundation; Australian Land Conservation Alliance; BirdLife Australia; Blue Mountains World Heritage Institute; Chair, International Indigenous Peoples' Forum on World Heritage (IIPFWH); Chair Wet Tropics Management Authority; CSIRO Land and Water; Department of Agriculture, Water and the Environment; Deakin University; Department of Environment and Science (QLD); Department of Environment, Land, Water and Planning (Vic); Great Eastern Ranges Ltd; Franz Weber Foundation; Humane Society International; ACIUCN Life member; Invasive Species Council; IUCN Regional Councillor; IUCN World Commission on Protected Areas; Kholo Creek Catchment Group; Macquarie Law School; NSW Biodiversity Conservation Trust; NSW National Parks and Wildlife Service; Pew Charitable Trusts; Pollination Group; BirdLife Southern Qld; Protect the Bush Alliance; Nature Ecology & Evolution; Taronga Zoo; Trust For Nature; University of QLD

- *What do we like about the framework, the vision, mission, goals, milestones, targets, and indicators in the first draft of the post-2020 global biodiversity framework?*
- *What elements of these need to be reviewed, how and why?*
- *What are the gaps in each component of the draft post-2020 framework?*

The workshop was independently facilitated by John Sturt-Addicott and Matt Heath from Spark Strategy.

This document was written in collaboration with key workshop participants, presenters, and members of the organising committee.

3. Key principles from workshop

Workshop participants offered praise, criticism and detailed guidance on the framework. Several key principles emerged from these discussions and are outlined below.

3.1 A holistic approach

The draft GBF was praised for moving beyond a species-based approach to conservation and management across the three central components of biodiversity – species, ecosystems and genetic diversity. Effective management by nations to halt losses and support recovery of species, ecosystems and genetic diversity is fundamental to maintaining biodiversity, enhancing nature's contributions to people and equitable sharing of its benefits to people (see *1.4 Science for an ecosystem goal and indicators*).

Participants commended that the draft GBF recognised and aimed to enhance the diverse values of biodiversity. The draft GBF outlines actions to ensure that both the monetary and non-monetary benefits derived from nature are maintained; participants particularly praised the recognised importance of sustaining the non-monetary benefits we derive as cultural services. The group also appreciated that the intrinsic value of nature was captured in the GBF but suggested that this focus could be a stronger central tenet in the final GBF.

3.2 Greater ambition needed to achieve the 2050 Vision

Participants praised the strong links between the goals and the 2050 Vision, which most saw as ambitious. However, participants noted that many targets were too weak and inadequate to meet the vision. Many quantitative measures in the goals and targets were seen as insufficient, such as the aspiration of restoring 20% of degraded ecosystems (Target 2), protecting 30% of land and of sea areas (Target 3), and reducing the introduction rate of invasive alien species by at least 50% (Target 6). Many targets also implicitly or explicitly accepted further losses to biodiversity before shifting to recovery. To achieve the Convention's 2050 Vision of living in harmony with nature, the environment must be in a better not worse state by 2030. Overall, the participants recommended that the targets must be strengthened to avoid additional losses to biodiversity over the next decade, in addition to restoring degraded areas. This ambition has support from the private sector[6], but requires support by governments to implement policies and legislation that prevent harmful practices and provide positive outcomes for biodiversity.

3.3 Outcome-oriented goals and action-oriented targets

There was a consensus that the goals and milestones should be framed as outcomes for biodiversity and the targets should be structured as actions with explicit intended outcomes linked to the goals. The structure and framing of targets have a large impact on their implementation, reporting and overall outcomes. The Aichi Biodiversity Targets, which were largely not met[4], included both action-oriented and outcome-oriented targets. Those targets with clear actions (e.g., establishing Protected Areas) had the most traction among nations yet many were not linked to clear outcomes for biodiversity. The first draft of the GBF represents a greater shift towards including more outcome-oriented targets, yet the proposed targets still contain a mixture of actions and outcomes. The wording of each target must clearly outline the desired outcomes alongside the actions required to produce those outcomes.

3.4 Alignment between indicators, goals and targets

A common concern raised by participants was the underdevelopment of the indicators to support the targets. Meaningful indicators to measure progress are an essential component of an effective GBF. Yet several targets lacked indicators to measure key components (e.g., Targets 3, 9 and 15), and other targets had indicators that were misaligned, lacking a causal relationship between the indicator and target component (e.g., Targets 9, 10 and 19).

Considered and careful development of the monitoring framework to support the GBF should be a top priority for the CBD negotiations. Further, the wording of the targets should be amended to ensure they are measurable. Targets that cannot be measured cannot be achieved.

3.5 A cohesive roadmap to success

Participants strongly believed that to achieve the objectives outlined in the GBF, they must be viewed as a cohesive roadmap by parties. Governments must approach the GBF as a complete and complementary package of outcomes with associated actions. Developing action plans for a subset of targets, or for targets in isolation, risks losing the intent underpinning the GBF – that the goals and targets work in synergy and provide complementarities to achieve the 2050 Vision.

The targets are divided into three themes: Targets 1-8 aim to reduce threatening processes; Targets 9-13 aim to ensure nature can meets people's needs; and Targets 14-21 aim to provide tools for implementing the other targets. Achieving individual targets may not be possible without simultaneously implementing actions to achieve other targets. For example, restoring degraded ecosystems (Target 2) cannot be effectively met without also implementing actions to manage introduced species (Target 6) and minimise pollution (Target 7). As such, achieving certain targets will enhance progress towards other targets. For example, establishing effective Protected Areas (Target 3) will support our capacity to manage and retain intact areas (Target 1).

Several targets work as umbrella principles that underpin our capacity to implement the GBF, such as integrating biodiversity values into decision making and planning structures (Target 14), ensuring sufficient financial resources (Target 19), and ensuring equitable and effective participation of key groups in decision making (Target 21). Other targets provide complementary aims that are not captured by other targets, such as Target 13 on preserving genetic resources.

Participants advocated for developing a robust theory of change for the framework. The current theory of change only shows a broad infographic of the key components of the GBF, making it challenging to understand the links between actions with outcomes and the relationships among targets. A revised theory of change should demonstrate the interactions, complementarities, and dependencies among the targets in making progress towards meeting the 2030 milestones and 2050 Goal and Vision.

3.6 Global coordination and collaboration

The central principle for successfully implementing and achieving the goals was absent from the GBF, according to the participants – global coordination and collaboration. Nature spans borders, thus managing species, ecosystems, and threatening processes requires recognition of shared responsibilities and cross-jurisdictional cooperation. The GBF must articulate the necessity of collaboration, coordination of actions, and knowledge sharing across local, national, regional, and international jurisdictions, and financing from all sectors, including government, not-for-profit, and

the private sector. This is essential to enable delegation of shared but differentiated responsibilities, including wealthier countries effectively supporting developing countries to achieve their targets.

3.7 Recognising Indigenous rights and knowledge

The inclusion of specific targets to ensure equitable and effective participation of Indigenous peoples and local communities in decision making (Target 21) and encourage ethical use of traditional knowledge (Target 20) was praised by participants as foundational for society moving forward. It was a clear priority among participants that the knowledge of Indigenous peoples is acknowledged, respected, and directly valued in the GBF, and that their rights and roles in managing biodiversity and benefitting from nature are recognised. This concept was seen as vital to underpin the wording and implementation of each target. While many targets went some way towards upholding this idea, participants identified many aspects where the language could be strengthened. These are described in the relevant sections below.

3.8 Definitions for success

A recurring theme across the framework was the need for conceptual clarity. Participants often sought greater clarification and precision in the terminology used in the GBF. While some terms were expressly defined in the glossary⁷⁷⁷[8] and one-pagers[9], many important concepts were ill-defined or lacked explanation. The use of vague terminology risks misinterpretations, which may have negative consequences for biodiversity and the achievement of the 2050 Vision.

3.9 Strong action on climate

A common issue raised by participants throughout the workshop was the compelling need for strong action on international agreements. Australia's standing, as an international actor with influence on the global biodiversity agenda, is currently being greatly undermined by our lack of action and minimal commitments on climate change. To meet both the vision and objectives of the Convention, strong, decisive and rapid action to substantially reduce greenhouse gas emissions and protect our biodiversity is essential.

4. Key Workshop Outcomes

Workshop participants offered praise, criticism and detailed guidance on the framework. Their critique and recommendations to enhance the GBF are outlined below.

4.1 2050 Vision

"By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people."

There was general agreement that the 2050 Vision was clear, succinct, and aligned with the four goals of the convention. The group strongly supported the alignment of the 2050 Vision with the timeframes in the Paris Agreement – reducing emissions to net zero by 2050 to limit warming to 1.5°C[1]. Alignment across global environmental conventions was viewed as vital to achieving the desired outcomes. Several participants also recommended the inclusion of milestones for 2040 to support the 2030 milestones and ensure sufficient, timely progress towards the 2050 Vision. Some participants thought that the vision should be achieved sooner than 2050, reflecting the urgent nature of the biodiversity crisis.

The participants welcomed the comprehensive nature of the vision, valuing biodiversity as the basis of decision making for conservation and use. However, participants suggested that the term '*valued*' should be clearly defined to capture its vital role in underpinning life and healthy communities, including via cultural importance. Participants shared the view that the explicit inclusion of '*all people*' was an improvement on the previous version. However, they advised that the language should include recognition of Indigenous peoples and local communities and that the benefits are equitably distributed among all people. Participants suggested that the term '*restored*' also required more context to ensure reliable interpretation. They also recommended replacing '*wisely used*' with '*sustainably used*', as the former is more subjective and may result in perverse outcomes.

4.2 2030 Mission

"To take urgent action across society to put biodiversity on a path to recovery for the benefit of the planet and people."

Participants generally appreciated the simplicity of the 2030 Mission wording. They supported that there was recognition of the urgency with which the world needs to make changes. However, they suggested that the mission should set a clear timeframe for action by replacing '*urgent action*' with '*immediate action*'. Several participants thought that given the urgency, actions should be undertaken much sooner than 2030.

There was broad agreement that '*put biodiversity on a path to recovery*' was vague in meaning and insufficiently ambitious to ensure a healthy planet. They believed that the mission should explicitly mandate societal change and elements of resetting (and equitable action) to ensure that we are driving transformational change. Further, participants strongly recommended that the mission include a directive to stop further biodiversity losses and retain existing ecosystems and biodiversity, rather than focusing solely on recovery and considering losses inevitable. Participants suggested incorporating the term '*nature-positive*' to align with the language and ambitions of the private sector[6].

Participants strongly supported the inclusion of people and the planet as key beneficiaries of biodiversity. They noted the importance of both the intrinsic value of biodiversity as well as the benefits it provides in supporting people. They suggested amending the wording to '*all species of the planet and its people*' and adding reference to ensuring a *'healthy country'*. It was agreed by participants that the inclusion of '*across society*' was important for recognising the scale of the global changes required. To enhance the clarity, they suggested including explicit reference to governments along with society, as they play a vital role in the success of achieving the mission.

4.3 2050 Goals

4.3.1 Goal A

"The integrity of all ecosystems is enhanced, with an increase of at least 15 per cent in the area, connectivity and integrity of natural ecosystems, supporting healthy and resilient populations of all species, the rate of extinctions has been reduced at least tenfold, and the risk of species extinctions across all taxonomic and functional groups, is halved, and genetic diversity of wild and domesticated species is safeguarded, with at least 90 per cent of genetic diversity within all species maintained."

The broad intention of Goal A to conserve and enhance ecosystems, species and genetic diversity was generally considered ambitious. Yet the phrasing was deemed by participants as overly complicated and inadequate to achieve the 2050 Vision and unwisely accepted further losses in biodiversity. They suggested that the goal should retain the term '*enhanced'* and expand this to '*halt and reverse'*.

Participants welcomed that the goal captured all components of biodiversity – ecosystems, species, and genetic diversity. Yet they suggested that the wording should be simplified and amended to ensure symmetry and consistent language among all components of biodiversity. Halting ecosystem losses and degradation and reducing the risk of ecosystem collapse should be explicitly stated to complement the goal for species extinctions. Further, in Chrissy Grant's presentation, she suggested expanding this to capture '*natural* ***and managed*** *ecosystems*.

Quantitative elements were considered insufficiently ambitious; increasing ecosystem area, connectivity, and integrity by at least 15% was considered insufficient to reverse loss. Concerns were raised that this low target may anchor global aspirations and limit long-term actions. They recommended that Milestone A.1 be raised to a net gain of at least 20%. Participants advocated that the quantitative elements be based on evidence of what is required to support a healthy planet. They suggested that the goal should include the aim of ensuring ecosystems are functioning, which will include reference to the connectivity and integrity of natural and managed ecosystems that support healthy and resilient populations. A critical issue highlighted by the group was that the indicators currently listed to support the targets under Goal A were unsuitable for measuring change in ecosystems (see section 5.4 *Science for an ecosystem goal and indicators*). The listed integrity indicators (both headline and component) measure change in species not ecosystems.

Similar to the ecosystem component, participants viewed reducing the rate and halving the risk of species extinctions as woefully inadequate to achieve the 2050 Vision. Aiming only to slow the extinction rate will only lock in additional extinctions and enable perverse outcomes. The species component of the goal should explicitly state that the focus is on avoiding human-induced extinctions. Therefore, the participants suggested reworking the goal to focus on halting and then reversing the risk of human-induced extinctions.

Participants believed that the indicators and targets should closely relate to biodiversity assessments. There is currently a strong reliance on the Red Lists to inform species (and more recently ecosystem) biodiversity monitoring, yet the program is underfunded and is not keeping pace with changes to biodiversity. A key factor is that country-level assessments are not used to inform global-level assessments. To enhance the availability of information to support monitoring of species goals, the participants suggested establishing stronger links and knowledge sharing between national and global biodiversity assessments and an increased commitment to funding and conducting assessments.

4.3.2 Goal B

"Nature's contributions to people are valued, maintained or enhanced through conservation and sustainable use supporting the global development agenda for the benefit of all."

Participants praised the goal's succinctness and that it explicitly included elements of equity. Yet they agreed that the goal and milestones are unlikely to be easily measurable, limiting our capacity to track the success of implementation. For instance, there is no measure for how enhancing nature supports the global development agenda. It is unclear how Goal B relates to achieving the other goals, specifically how valuing nature will directly enhance the status of biodiversity (Goal A), equitable sharing of benefits (Goal C), and adequate resourcing (Goal D).

The group broadly supported the phrasing '*nature's contributions to people*'. Although they suggested this could be expanded to 'both *nature* ***and its*** *contributions to people are valued*' to ensure that nature's intrinsic value is appreciated alongside its benefits for people. Participants sought more clarity on the meaning of '*valued*' and how this would be demonstrated and measured. They interpreted the link to the Sustainable Development Goals to indicate that this was via natural capital accounting (Milestone B.1) but recommended that this be explicit if the case, and to amend the wording to '*global sustainable development*'. While economic accounting does not typically capture non-use values (e.g., cultural), it can recognise the benefits from intact nature, which are essential to include in assessments of the intrinsic value of nature. However, it also recognises the benefits of non-intact ecosystems, which can have perverse outcomes for biodiversity. People's contributions to nature were considered important to recognise, value, and respect, particularly those of Indigenous peoples and local communities. The group suggested altering the wording to '***understood****, valued, maintained,* ***and*** *enhanced through conservation'* while Chrissy Grant suggested '***and peoples' positive contributions to nature*** *valued,* ***respected, recognised*** *and maintained*' in her plenary presentation.

The group agreed that human rights related to nature should be represented in the goal and milestones, with specific mention of the right to a healthy environment for all people, including women, girls, youth, and Indigenous peoples. To capture this, Chrissy Grant suggested amending the text to '***and the fulfilment of the obligations to respect, protect and promote all human rights*** *for the benefit of all,* ***especially those most dependent on biodiversity****.'*

Participants suggested that the milestones should include increasing our understanding of the relationship between maintaining a healthy planet and healthy communities to acknowledge the inherent value of scientific understanding.

4.3.3 Goal C

"The benefits from the utilization of genetic resources are shared fairly and equitably, with a substantial increase in both monetary and non-monetary benefits shared, including for the conservation and sustainable use of biodiversity."

Participants shared conflicting views on the appropriateness of Goal C. Some participants considered that the wording was suitably pitched, whereas others thought more detail was required, including reference to derivatives, biological resources, ecosystem services and associated traditional knowledge. '*A substantial increase*' was viewed as vague, and the group thought that milestones should include more measurable components.

The inclusion of access and of benefit sharing fairly and equitably was seen as important in the goal. However, the group stated that it should be clear that the benefits of traditional knowledge should not only increase but be directed towards Indigenous peoples and local communities. They also suggested that there could be explicit reference to the *Nagoya Protocol* (not yet been ratified by Australia), the international agreement aimed at sharing benefits arising from the use of genetic resources in a fair and equitable way[10]. Participants suggested the following options for the goal text:

- "*By 2050, benefits arising from the utilization of genetic resources and associated traditional knowledge are shared fairly and equitably resulting in increased benefits directed to conservation and sustainable use of biodiversity in accordance with the Nagoya Protocol."* Originally proposed in IUCN's comments on the GBF first draft[11]

- *"The benefits from the utilization of genetic resources,* ***derivatives, biological resources, ecosystem services and associated traditional knowledge*** *are shared fairly and equitably, with a substantial increase in both monetary and non-monetary benefits shared, including for the conservation and sustainable use of biodiversity."*

4.3.4 Goal D

"The gap between available financial and other means of implementation, and those necessary to achieve the 2050 Vision, is closed."

Participants strongly appreciated the inclusion of Goal D to fill a previous gap. The availability of resources to support the implementation of the 2050 Vision is essential to its success by ensuring nations have the capacity to take the necessary actions. Yet the goal should be framed as an outcome to be achieved, rather than a means to achieving the vision. The participants suggested reframing the goal as aiming for adequate and sustainable finance to secure biodiversity.

The goal should articulate that financing comes from all sectors (government, not-for-profit, and the private sector), and involve cooperation, collaboration, and knowledge sharing across local, national, regional, and international levels. This is vital because species, ecosystems and the driver of change require cross-jurisdictional management. Participants asserted that there must be stronger links between Goal D and Targets 15-19, which aim to minimise subsidies, incentives, and other financial flows that are harmful to biodiversity.

Greater clarity in the timeframes of achieving the goal was requested. Participants suggested adding a milestone for a 2028 review to develop a projected figure of what is required for 2050. Participants suggested that the CBD use lessons from the COP26 and from how businesses report on nature reliance and risk, such as using the Taskforce on Nature-related Financial Disclosures (https://tnfd.global). Clearer language was sought to improve the goal; Milestone D.1 should change to '*close the financing gap* ***of*** *at least*', rather than '*up to at least*'.

4.1 2030 Targets and indicators

During the two-day workshop, participants were tasked with providing feedback on 17 of 21 targets, including Targets 1-11, 14-16, and 19-21. Targets 12, 13, 17 and 18 were not discussed due to time limitations. The summaries of the discussions of each target are presented below in three themes, following format of the updated GBF zero-draft[12]: (i) reducing threats to biodiversity; (ii) meeting people's needs through sustainable use and benefit-sharing; and (iii) tools and solutions for implementation and mainstreaming.

4.4.1 Reducing threats to biodiversity: Targets 1-8

Targets 1-8 aim to reduce processes threatening biodiversity and enhance biodiversity. Key threats covered in the targets include land use, use of species, introduced species, pollution, and climate change. The targets outline several mechanisms to prevent additional losses and enhance recovery, including biodiversity-focussed spatial planning, restoration, establishing Protected Areas, sustainable use, and active management.

Participants strongly advocated for the wording of these targets to shift from "*land and sea*" to "*terrestrial, freshwater and marine*". They also voiced concerns about the lack of clarity in how Targets 1-3 work in concert to conserve and enhance biodiversity across the land and sea. For instance, can the same area contribute towards multiple targets? Participants deemed it important that not only intact areas are prioritised in these targets; non-intact areas must be retained, protected, and restored.

Target 1

"Ensure that all land and sea areas globally are under integrated biodiversity-inclusive spatial planning addressing land- and sea-use change, retaining existing intact and wilderness areas."

Participants noted a gap between the wording and intent of the target, which would limit capacity to fulfil the desired outcomes. Target 1 was proposed to address the direct drivers of biodiversity loss (land- and sea-use change), but at present is focused on planning as an indirect driver of loss, thus overlapping with Target 14. Participants agreed that the target missed the opportunity to push for conserving biodiversity by halting habitat loss from land and sea use, as the current target does not state that damaging land and sea use must stop. Importantly, the language is inconsistent with the wording of Goal A, which explicitly mentions maintaining and enhancing the integrity and resilience of ecosystems (rather than 'intact and wilderness').

Target	***Target 1 – "Ensure that all land and sea areas globally are under integrated biodiversity-inclusive spatial planning addressing land- and sea-use change, retaining existing intact and wilderness areas."***
Key comments	- Should directly address halting habitat loss and degradation from existing use of land, freshwater, and marine – not just planning - Ensure language is consistent with Goal A – maintaining and enhancing integrity and resilience of ecosystems - Change from '*all land and sea'* to '*all terrestrial, freshwater, and marine'* - Plans should recognise rights of Indigenous peoples and local communities
Options for suggested new text	Target 1: *"Ensure that all terrestrial,* ***freshwater,*** *and marine areas globally are under integrated biodiversity-inclusive spatial planning addressing land- and sea-use change, retaining and managing existing ecosystems of high integrity."*

	Target 1: *"Ensure that all land, sea **and freshwater** areas globally are under integrated biodiversity-inclusive spatial planning addressing land- and sea-use change, retaining existing intact and wilderness areas, **and recognising the rights of Indigenous peoples and local communities over land, territories, waters and resources**."*
Component	**1.1 Area under integrated biodiversity-inclusive spatial planning**
Key comments	- Spatial planning and monitoring strongly recommended - Clarification: '*integrated biodiversity-inclusive spatial planning'* refers to spatial planning that integrates biodiversity considerations - Clarify if all land and sea use require some degree of spatial planning that integrates biodiversity considerations - Using the term '*integrated'* will support comprehensive decision making across terrestrial, freshwater, and marine areas - Use planning approach to achieve specified outcomes i.e., nature positive - Note planning approaches may not be compatible with traditional management - Knowledge holders must agree to incorporation of heritage sites in plans and use of cultural information and data - Meaning of term '*addressing'* must be clarified in this context - Define the authority or governing bodies undertaking and using the information from the spatial planning and how this would be implemented - Climate change impacts and building resilience to climate change should be incorporated into spatial planning
Headline indicator	*1.0.1 Percentage of land and seas covered by spatial plans that integrate biodiversity*
Key comments	- Indicator not suitable to track degradation or loss of intact habitat - Measure should be the effectiveness of the integrated spatial planning to ensure we are achieving positive outcomes for biodiversity.
Complementary indicator	*1.2. Percentage of spatial plans utilising information on key biodiversity areas*
Key comment	- Supported use of this indicator
Component	**1.2 Retention of existing intact and wilderness areas**
Key comments	- Supported retaining existing natural areas o The term '*wilderness'* is increasingly recognised as problematic as it does not recognise land management by Indigenous people contributing to biodiversity and ecosystem health. Alternative terms suggested by some participants – '*ecosystems of high integrity'* or '*functioning ecosystems'* - Long-term planning is vital to conserve integrity of ecosystems, including small areas, currently threatened ecosystems, or those likely to be threatened in the future, regardless of their intactness, to avoid further degradation in non-intact areas - Include land management of these areas using a rights-based approach

Target 2

"Ensure that at least 20 per cent of degraded freshwater, marine and terrestrial ecosystems are under restoration, ensuring connectivity among them and focusing on priority ecosystems."

Inclusion of a dedicated target for restoration was commended by participants, as restoration will be a key pathway to meeting the 2050 Vision. Yet the broad consensus was that restoring 20% of degraded ecosystems was a weak ambition, and it was unclear exactly which ecosystems this would include: 20% of degraded ecosystems, 20% of the areas of each degraded ecosystem, etc.

Target	***Target 2 –** "Ensure that at least 20 per cent of degraded freshwater, marine and terrestrial ecosystems are under restoration, ensuring connectivity among them and focusing on priority ecosystems."*
Key comments	- Restoring 20% of degraded ecosystems is a weak ambition, with some participants proposing the target be increased to 50%, considering that

	restoration is likely to be required in all ecosystems, particularly those that are threatened. - Add further detail on how intact vs. '*degraded'* ecosystems are determined and defined. o Does degraded lands include all pastoral or agricultural land, or only restorable ecosystems? o Ecosystems that are "intact" are likely to have some degree of degradation - How will priority ecosystems be selected? The selection criteria will affect those targeted for restoration
Component	**2.1 Area of freshwater, marine and terrestrial ecosystems restored**
Key comments	- Groundwater should be included - How will '*under restoration'* be defined and measured? Must not support nominal actions nor inappropriate afforestation or restoration - Unclear intended outcomes of restoration actions o Restoration must be appropriate and effective at reversing area and integrity losses o Some flexibility may be needed in the end goal of restoration, where it is undesirable to restore ecosystems to a previous state that cannot be maintained under a future climate. o Recovery must be maintained - Will ecosystems under restoration be afforded protection status to avoid further degradation, given Protected Areas typically target higher integrity areas? - Use the UN definition of '*ecosystem restoration'*[2] and Society of Ecological Restoration definition of '*ecological restoration*'[3]
Suggested indicator	- Add measure of effectiveness of restoration actions in ensuring an ecosystem is recovering towards functioning effectively
Component	**2.2 Connectivity**
Key comments	- Inclusion of connectivity was praised - Define connectivity to capture scale and value dependence - Connectivity must be considered across landscapes, e.g., within and among ecosystems, and between intact and degraded systems
Suggested indicator	- Add a measure of the Indigenous peoples and local communities' initiatives supported or enabled

Target 3

"Ensure that at least 30 per cent globally of land areas and of sea areas, especially areas of particular importance for biodiversity and its contributions to people, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes."

Participants commended the establishment of a quantifiable target for Protected Areas (PAs) with separate land and sea goals that connect different forms of PA, tenure types and OECMs. Yet the level of ambition of the target was criticised by some as weak and not based on the science of the requirements to meet the 2050 Vision. Several participants commended the connections with Target 1 to undertake spatial planning and retain intact areas of land and sea. Yet others sought greater clarity on how protection and spatial planning will work in concert. They praised the

[2] To ensure that any restoration activity has positive outcomes for biodiversity by aiming to return the ecosystem to a state that reflects the values regarded as inherent in the ecosystem and that provides goods and services that people value.
[3] The process of assisting the recovery of an ecosystem that has been degraded, damaged or destroyed. (Ecosystem restoration is sometimes used interchangeably with ecological restoration, but ecological restoration always addresses biodiversity conservation and ecological integrity, whereas some approaches to ecosystem restoration may focus solely on the delivery of ecosystem services.)

specific mention of ecologically representative areas and noted that large areas for conservation are important to capture representativeness. Yet the indicator set is insufficient across all components and qualifiers.

Target	***Target 3 – "Ensure that at least 30 per cent globally of land areas and of sea areas, especially areas of particular importance for biodiversity and its contributions to people, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes."***
Key comments	- Change from '*land and sea'* to '*terrestrial, freshwater, and marine ecosystems*' - Clarify if sea (or marine) areas include estuaries - Clarify how degraded ecosystems will be covered in this target; Protected Areas typically focus on intact areas - Include key biodiversity areas - Increase level of ambition significantly based on science - Clarify relationship with Target 1
Suggested new text	Target 3: *"Ensure that at least 30 per cent globally of land areas and of sea areas, especially areas of particular importance for biodiversity and its contributions to people, are conserved through effectively and equitably* ***governed and*** *managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures,* ***with the free, prior and informed consent of Indigenous peoples and local communities, and including through appropriate recognition and support for their collective lands, territories and resources,*** *and integrated into the wider landscapes and seascapes."* Noting the IUCN also suggests resolving the terminology regarding governance in accordance with CBD Decision 14/8 and the relevant guidelines by referring to 'equitable and effective systems of protected areas and other effective area-based conservation measures'. The use of 'effectively and equitably managed' conflates the distinction between 'equitable governance' and 'effective management' and perpetuates the confused use of terms in Aichi Target 11.
Component	**3.1 Area protected and conserved**
Key comments	- Ensure target is specific – is the target to protect 30% of land and 30% of sea areas in total, or 30% of each ecosystem type within each realm? - Direction on how to specify targets for different ecosystems is needed. - Recent evidence suggesting that >60% of land and sea must be conserved to prevent extinctions, reverse declines, and retain intactness is likely to be an underestimate[5,6] - Increase target to 50% for each realm
Component	**3.2 Areas of particular importance for biodiversity protected and conserved**
Key comments	- Including '*areas of particular importance for biodiversity'* was valued - Outline which areas will be included alongside Key Biodiversity Areas; consistent criteria for selection needed - Explicitly state that protection occurs across land tenures (i.e., not just public lands) - Incorporate all biodiversity values, including appropriate recognition and support for Indigenous peoples and local communities - Use the IUCN Protected Area categories to inform the process and define clear processes and timeframes for identifying, mapping, and creating baselines for KBAs
Suggested indicator	- Add component indicators beyond Key Biodiversity Areas coverage

Component	3.3 Effective management and equitable governance of the system of protected areas and other effective area-based conservation measures
Key comments	- Incorporation of '*effective management and equitable governance*' and inclusion of quality and outcome measures was supported - Expansion of the Protected Area Network must enhance conservation outcomes, rather than simply add coverage - Prohibit environmentally destructive activities - Define '*equitable governance*' - Use a human-rights approach – recognising custodianship and active management by Indigenous peoples and local communities - Ensure Indigenous peoples and local communities have agency to determine the effective practices on their lands - Define a pathway for disaggregating the global target to national targets to ensure equitable contributions - Use of OECMs was supported - Define and develop a database of OECMs to ensure that only those contributing positive biodiversity outcomes are considered - Separate OECMs into a distinct target so that current target follows the IUCN definition (i.e., only including PAs and Private PAs), OR include OECMs in a 30-60% target
Component indicator	*3.3.1 Protected Area Management Effectiveness (PAME) (Protected Planet)*
Key comment	- Has few inputs and is not a fit-for-purpose measure of quality
Suggested indicators	Indicators for effective management: - Ecologically representativeness of the areas - Quality of the Protected Areas (i.e., ecosystem integrity) - IUCN Green List - Effectiveness of management Indicator for equitable governance: - Level of equitability of management and governance (including Indigenous-led conservation and management)
Component	**3.4 Connectivity within the system of protected areas and other effective area-based conservation measures**
Key comments	- Including connectivity, which is vital for the resilience of some ecosystems and species was supported - Need a clear and measurable definition of connectivity that extends beyond species connectivity and includes spatial and temporal dimensions - Recognise that areas between contribute to connectivity if they too are healthy (i.e., all land tenure types). - Outline how the target will address multiple tenure types – multiple tenures could be across one block or across different areas - Consider how connectivity will change with climate change - Change wording to '*within and between*' - Invest in tools applicable to ecosystems, different scales, mapping, and available data
Component indicator	*3.4.1 Species Protection Index (GEOBON)*
Key comment	- Indicators not comprehensive, noting that measuring connectivity is challenging

Target 4

"Ensure active management actions to enable the recovery and conservation of species and the genetic diversity of wild and domesticated species, including through ex situ conservation, and effectively manage human-wildlife interactions to avoid or reduce human-wildlife conflict."

Participants welcomed a target for species to complement the ecosystem-focused targets. Yet the target should cover '*all species',* including species on the IUCN Red List of Threatened Species and Green Status of Species, and species that are unlisted, rare, Data Deficient, functionally important, or culturally significant. Participants believed that the target incorporated too many elements and that the target should focus on conservation and enabling recovery.

Target	***Target 4 – "Ensure active management actions to enable the recovery and conservation of species and the genetic diversity of wild and domesticated species, including through ex situ conservation, and effectively manage human-wildlife interactions to avoid or reduce human-wildlife conflict."***
Key comments	- Cover all species in target - Simplify structure of target – suggested target restructuring: o Merge with Target 2 to create a target on restoration and management for species and ecosystem recovery o Shift *human-wildlife conflict* and *genetic diversity of domestic species* components to targets on sustainable use
Component	**4.1 Conservation and recovery actions**
Key comments	- Use of '*recovery*' rather than simply halting losses was commended - Target should mandate addressing existing threats - Focus language on measurable desired outcomes supported by actions - Change '*ex situ conservation*' to '*in-situ and ex-situ conservation*' - Mandate additional scientific research due to a lack of understanding of how to effectively recovery species
Component	**4.2 Wildlife conflict**
Key comments	- Define clear conservation outcomes for the affected species - Aim to manage human-wildlife interactions optimally (including prioritising non-lethal approaches) to avoid human-wildlife conflicts and maintain viable populations of affected species across their range - Recognise Indigenous peoples and local communities and the importance of education (e.g., level of risk, appropriate interactions) in avoiding conflicts
Headline indicator	*4.0.1 Proportion of species populations that are affected by human wildlife conflict*
Key comment	- Unhelpful at a national level
Suggested indicator	- Add indicator for human health and disease transmission
Component	**4.3 Genetic diversity**
Key comments	- Inclusion of genetic diversity was supported - Expand focus beyond used or domesticated species to wild species (including prioritising native plants) - Explicitly mention marine-based plant genetic resources
Headline indicator	*4.0.2 Number of plant genetic resources for food and agriculture secured in medium or long-term conservation facilities*
Key comment	- Amend to capture all types of genetic diversity for wild species

Target 5

"Ensure that the harvesting, trade and use of wild species is sustainable, legal, and safe for human health."

Greater clarity was sought on the distinctions between Target 5 and Target 9 to avoid overlap. The focus of Target 5 should be to ensure human use is conducted in a way that does not adversely affect biodiversity. Participants agreed that the target should connect to other targets focused on equity issues. There must be recognition of equity and rights, including respecting customary lore,

sustainable use, intellectual property of Indigenous peoples and local communities, and ensuring trade benefits Indigenous peoples and local communities and does not impinge their rights[d].

Target	**Target 5 – "*Ensure that the harvesting, trade and use of wild species is sustainable, legal, and safe for human health.*"**
Key comments	- Distinguish from Target 9 - Reference Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Convention on the Conservation of Migratory Species of Wild Animal (CMS) - Establish a clear link with maintaining animal populations and ecosystem integrity
Suggested new text	Target 5: "*Ensure that the harvesting, trade and use of wild species is* ***ecologically and biologically*** *sustainable, legal, and safe for human health."*
Component	**5.1 Harvesting, trade and use are sustainable, legal and safe**
Key comments	- Separate sustainable, legal, and safe into distinct components with corresponding indicators - Shift '*safe for human health*' to Target 9 - Address demand issues to ultimately reduce demand - Recognise that '*legal*' trade is driving biodiversity declines – effective regulation and enforcement of legal trade is critical, and restrictions should avoid inhibiting research - Include preventing risk of pathogen spill over
Headline indicators	*5.0.1 Proportion of wildlife that is harvested and traded legally and sustainably* *5.0.2 Proportion of fish stocks within biologically sustainable levels*
Key comments	- Mixed opinions on sufficiency of indicators among particpants - Treat marine, terrestrial, and freshwater ecosystems and groups comparably - Treat fish the same as all other wildlife, rather than as a separate indicator
Suggested headline indicator	- Add Separate indicators for sustainability, legality, and safety
Suggested component indicator	- Add indicators for impacts on animals, plants, and abiotic elements (e.g., water) - Add indicators of sustainability that go beyond single-species stock assessments to include ecosystem assessment, multi-species and ecosystem-based management

Target 6

"Manage pathways for the introduction of invasive alien species, preventing, or reducing their rate of introduction and establishment by at least 50 per cent, and control or eradicate invasive alien species to eliminate or reduce their impacts, focusing on priority species and priority sites."

While some participants felt the target was ambitious, others viewed it as not ambitious enough to stop biodiversity losses, as outlined in the goals. The focus should be shifted to '*manage pathways to prevent the introduction of',* as the current focus to only *reduce* the rate of introduction perversely allows further introductions. This quantitative target must be based on evidence that it will enhance biodiversity, which could be area-based, an absolute measure, or values-based.

[d] The Local Biodiversity Outlook 2[28] sets out examples of IPLCs contributions of actions against the Aichi Targets.

Target	***Target 6 – "Manage pathways for the introduction of invasive alien species, preventing, or reducing their rate of introduction and establishment by at least 50 per cent, and control or eradicate invasive alien species to eliminate or reduce their impacts, focusing on priority species and priority sites."***
Key comments	- Increase ambition beyond preventing losses - Definition of "*invasive alien species*" is inadequate – must be sensitive to climate-induced range shifts and only include those species that are detrimental to the ecosystems. - Add emphasis on need for sufficient time, resources and monitoring over the long term to achieve the target, including recognition that some jurisdictions will require support to achieve this.
Component	**6.1 Rate of introduction and establishment**
Key comment	- Amend wording to clarify that species introductions and establishment should be considered together
Headline indicators	*6.0.1 Rate of invasive alien species spread*
Key comment	- Separate indicators of rate of introduction (if retained) and rate of spread
Component	**6.2 Control or eradicate invasive alien species**
Key comment.	- Emphasis on eradication was supported - Aim to control or eradicate to reduce negative impacts was considered pragmatic - Management solutions should be humane and collateral impacts on native species should be managed.
Component	**6.3 Reducing the impact on priority species and priority sites**
Key comments	- Focus on priority species and sites was supported but should be expanded to priority ecosystems - Define '*priority*' more clearly to include native species, ecosystems, and sites most vulnerable to impacts from invasive alien species, and those invasive alien species that are causing the most harm to biodiversity. - Advice from Indigenous peoples and local communities should be sought when defining priorities to capture culturally significant priorities - Clarify if component relates to reducing impacts of the invasive alien species, or also to reducing the rate of introduction and/or establishments
Component indicator	*6.3.1 Rate of invasive alien species impact (GEOBON)*
Key comment	- Use of GEOBON indicators was endorsed
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Target 7

"Reduce pollution from all sources to levels that are not harmful to biodiversity and ecosystem functions and human health, including by reducing nutrients lost to the environment by at least half, and pesticides by at least two thirds and eliminating the discharge of plastic waste."

It is fundamental, according to participants, that the ambition of Target 7 is not arbitrary but instead based on the level of action needed to meet the goals. Cutting pollution by half will be insufficient to achieve the goal of a net increase in ecosystem area and integrity and species recovery. The target should therefore focus on reducing the pollution exposure levels to what is required to shift the receiving environment into a sustainable state. This will vary among pollutants (as they can vary in persistence and toxicity) and ecosystems, which may respond differently to loads and reductions of pollutants.

Target	**Target 7 – "*Reduce pollution from all sources to levels that are not harmful to biodiversity and ecosystem functions and human health, including by reducing nutrients lost to the environment by at least half, and pesticides by at least two thirds and eliminating the discharge of plastic waste.*"**
Key comments	- Base target on the evidence of required action for each pollutant. Make pollution reduction target ecologically relevant - Clearly define '*pollution'* - Clarify if atmospheric pollution is included in target - Include noise and light pollution and other emerging pollutants including pharmaceutical ingredients, illicit drugs, personal-care-product additives, (endocrine disruptors)
Component	**7.1 Amount of nutrient leached or lost to the environment**
Key comment	- Specify as nutrients leached due to human activities, not natural nutrient cycles
Headline indicator	*7.0.1 Index of coastal eutrophication potential (excess nitrogen and phosphate loading, exported from natural boundaries)*
Key comments	- Expand beyond coastal ecosystems and include freshwater systems as a minimum - Indicator not directly correlated with fertiliser use (component indicator)
Component indicators	*7.1.1 Fertilizer use (FAO)* *7.1.2 Proportion of domestic and industrial wastewater flow safely treated (SDG indicator 6.3.1)*
Key comments	- Include overuse of fertilizers in indicator *7.1.1* - Expand indicator *7.1.2* to include environmental health not just human health
Suggested indicators	- Add indicator for bioaccumulation - Add indicators of run-off and pollutants loss, rather than agricultural inputs - Add indicators of harm to biodiversity
Component	**7.2 Amount of pesticide leached or lost to the environment**
Key comments	- Reframe from *amount leached* to '*overall use'* - Term '*pesticide'* is too vague - Expand to environmentally harmful chemicals - Improve education on optimal levels of pesticide use
Headline indicator	*7.0.3 Pesticide use per area of cropland*
Key comment	- Amend indicator *7.0.3* to read '*overuse'* rather than '*use'*
Suggested indicators	- Add indicator for ceasing of pesticide pollution, not just minimisation - Add indicator capturing the transition to organic agriculture
Component	**7.3 Amount of discharge of plastic waste**
Key comments	- Component on reducing plastic waste and pollution was welcomed - Scope is too limited – must span production, use, discharge, and removal of existing waste polluting the environment - Aim should be a circular economy - Unclear if there is capacity to measure this component
Suggested component indicators	- Add indicator to measure uptake of plastic use policies by countries - Add indicator of plastic production - Add indicator to measure proportion of plastic transitioned to waste - Add indicator of progress towards 100% recycling - Add indicator of elimination of plastic waste
Component	**7.4 Amount of other pollutants**
Key comment	- Explicitly mention light pollution and endocrine disruptors
Component indicator	*7.4.2 Underwater noise pollution*
Suggested indicators	- Expand to include land-based noise pollution - Add indicators for other harmful chemicals

Target 8

"Minimize the impact of climate change on biodiversity, contribute to mitigation and adaptation through ecosystem-based approaches, contributing at least 10 GtCO2e per year to global mitigation efforts, and ensure that all mitigation and adaptation efforts avoid negative impacts on biodiversity"

Participants welcomed a target focused on managing climate change. To ensure the target is effectively achieved, participants suggested the target should be referenced to and informed by the Paris Agreement, including using the relevant indicators. They noted that the target should reference the need for nature-based solutions and adaptive management to achieve the target. Adaptive management is vital as the suitability of various management strategies will change under climate change. Targets 8 must focus on stopping threatening processes, rather than simply reducing their impacts. Effectively tackling climate change and pollution requires harmful policies and activities be halted altogether; remediating the negative effects of these alone will not be sufficient to accomplish the 2050 Vision of living in harmony with nature.

Target	**Target 8 – "*Minimize the impact of climate change on biodiversity, contribute to mitigation and adaptation through ecosystem-based approaches, contributing at least 10 GtCO2e per year to global mitigation efforts, and ensure that all mitigation and adaptation efforts avoid negative impacts on biodiversity*"**
Key comments	- Target on climate change was praised; focus must be stopping the threat (urgent reduction of GHG emissions) - Reference nature-based solutions and adaptive management to achieve target
Component	**8.1 Minimize impact of climate change**
Key comments	- Mention of reducing negative impacts on biodiversity was commended - Objective must aim for fully implementing the Paris Agreement in an effective and timely manner
Key comment	- Add headline indicator linked to United Nations Framework Convention on Climate Change (UNFCCC)[13]
Component indicator	*8.1.1 Number of countries with nationally determined contributions, long-term strategies, national adaptation plans and adaptation communications that reflect biodiversity (based on information from UNFCCC and SDG indicator 13.2.1)*
Key comment	- Amending indicator to ensure that nationally determined contributions result in meaningful carbon emission reductions
Component	**8.2 Contribute at least 10 $GtCO_2$ to mitigation and adaptation though ecosystem-based approaches**
Key comment	- Support for high target, but unclear if 10 $GtCO_2$ is adequate or feasible
Component indicator	*8.2.1 Total climate regulation services provided by ecosystems by ecosystem type (SEEA)*
Key comment	- The number of countries adopting and using SEEA accounts is growing but may not be sufficient for this indicator to provide a global picture by 2025
Component	**8.3 Ensure that all mitigation and adaptation efforts avoid negative impacts on biodiversity**
Key comment	- Amending wording from '*biodiversity'* to '*biodiversity and cultural values'*
Component indicator	*8.3.1 Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030 which include biodiversity (based on SDG indicator 13.2.1)*
Key comment	- Use of indicator from the Sustainable Development Goals was praised

Suggested indicator	- Add indicator for positive outcomes for biodiversity, rather than simply avoiding negative impacts

4.4.2 Meeting people's needs through sustainable use and benefit-sharing: Targets 9-11

Targets 9-11 focus on ensuring people's needs are met whilst also protecting and enhancing biodiversity. They mandate that any benefits from biodiversity are sustainably managed, aquaculture, agriculture and forests are sustainably managed, and ecosystem services are maintained and enhanced.

Target 9

"Ensure benefits, including nutrition, food security, medicines, and livelihoods for people especially for the most vulnerable through sustainable management of wild terrestrial, freshwater and marine species and protecting customary sustainable use by Indigenous peoples and local communities."

Participants supported the inclusion of a target to ensure distribution of benefits is equitable but felt that it was underdeveloped. As noted above, there needs to be clearer division between the targets for maintaining the benefits through sustainable use (Target 9) and reducing the threats to biodiversity from use (Target 5). This is vital to allow trade-offs and ensure the targets are aligned but not overlapping. There were also several concerns regarding the suggested indicator set – citing gaps in indicators measuring the elements of the target and a lack of alignment between the indicators and target. For example, the complementary indicators relate to sustainable management and mostly to fisheries.

Target	***Target 9 – "Ensure benefits, including nutrition, food security, medicines, and livelihoods for people especially for the most vulnerable through sustainable management of wild terrestrial, freshwater and marine species and protecting customary sustainable use by Indigenous peoples and local communities."***
Key comments	- Distinguish from Target 5 - Include benefits from species and ecosystems - Include extraction and use of abiotic elements (e.g., water, mining, sand) - Separate customary sustainable use into a separate component - Important to reference '*traditional cultural practices'*, '*ensure equitable benefits'*, and include sustainable management for cultural/social, ecological, and economic values - Note, commercialisation should not impinge on customary practices
Suggested new text	*Target 9: "Ensure benefits, including nutrition, food security, medicines, and livelihoods for people especially for* ***those most dependent on biodiversity*** *through sustainable management of wild terrestrial, freshwater and marine species,* ***including through promoting*** *customary sustainable use by Indigenous peoples and local communities* ***and implementation of the global Plan of Action on Customary Sustainable Use of Biological Diversity****."* *Target 9:* "*Ensure benefits, including nutrition, food security, medicines, and livelihoods, for people especially for the most vulnerable* ***through enhanced resilience and sustainable use of wild terrestrial, freshwater, and marine species*** *and protecting customary sustainable use by Indigenous peoples and local communities*."

	Target 9: "*Ensure that benefits, including nutrition, food security, medicines, and livelihoods for people especially for the most vulnerable* ***dependent on biodiversity are attained through sustainable management (ecological, economic and cultural)*** *of wild terrestrial, freshwater and marine species, and protecting* ***including through promoting*** *customary sustainable use by Indigenous peoples and local communities* ***and implementation of the Global Plan of Action on Customary Sustainable Use***."
Component	**9.1 Ensure benefits**
Key comment	- Inclusion of target to ensure distribution of benefits is equitable was supported but participant felt that it was underdeveloped
Component indicators	*9.1.1 Number of people using wild resources for energy, food or culture (including firewood collection, hunting and fishing, gathering, medicinal use, craft making, etc.)* *9.1.2 Percentage of the population in traditional employment (ILO)* *9.1.3 Spawning stock biomass (related to commercially exploited species)*
Key comments	- Indicators should capture ecosystems (not just species) and abiotic elements - Objective that indicator 9.1.1 supports is unclear – what is a sustainable number or percentage of people using wild resources? - Note challenge in finding indicators that apply to all countries
Suggested indicators	- Amend 9.1.1 to measure of Indigenous peoples and local communities able to continue customary sustainable use - Add indicator to capture sustainable management - Add indicator of the sustainability of benefits (stocks and flows of benefits) - Add indicator of co-existence of people and biodiversity - Add indicator for equitability of benefit sharing that captures demand and different users, including the most disadvantaged

Target 10

"Ensure all areas under agriculture, aquaculture and forestry are managed sustainably, in particular through the conservation and sustainable use of biodiversity, increasing the productivity and resilience of these production systems."

Inclusion of a target on agriculture and sustainable forestry that covered '*all areas*' was commended by participants. Yet the target should be expanded to cover sustainable management of all wild-caught fisheries and other wild harvest approaches. The currently listed indicator set was viewed as insufficient and maligned with the target – several components lack suitable indicators, and some of the suggested indicators cannot meaningfully measure progress towards meeting the target.

Target	***Target 10 – "Ensure all areas under agriculture, aquaculture and forestry are managed sustainably, in particular through the conservation and sustainable use of biodiversity, increasing the productivity and resilience of these production systems."***
Key comments	- The focus of the target should remain on the resilience of biodiversity rather than of production systems - Expand to include all wild-caught fisheries and other wild harvest approaches should be managed sustainably
Component	**10.1 Agriculture** **10.2 Aquaculture**

Key comments	- State that '*increasing the productivity'* can only occur through intensification on current production sites while sparing other areas, not by expanding production sites - Impacts of production systems must be contained within the production system and harmful practices phased out - Noting IUCN suggested text 'Sustainably manage all areas under agriculture, aquaculture and forestry, using agroecological, regenerative and other recognised environmentally sustainable approaches, thereby contributing to biodiversity conservation and increasing the productivity and resilience of these production systems'[14]
Headline indicator	*10.0.1 Proportion of agricultural area under production and sustainable agriculture*
Key comment	- The headline indicator is divorced from biodiversity measures, both the contribution of biodiversity and impacts on biodiversity
Suggested indicator	- Add a headline indicator for aquaculture but alter to consider impacts on biodiversity (as noted above)
Component indicator	*10.1.1 Average income of small-scale food producers, by sex and Indigenous status (SDG indicator 2.3.2)*
Key comments	- Amend the component indicator to state that sustainable management must be biodiversity-inclusive to avoid perverse outcomes - The component indicator from the Sustainable Development Goals *10.11 Average income of small-scale food producers by sex and Indigenous status* is not a preferred metric of sustainability as it does not relate to biodiversity
Suggested indicators	- Add a component indicator for agriculture based on soil health improvement or a soil health index - Add a component indicator for illegal, unregulated, and unreported fishing - Add the IUCN Red List of Ecosystems as a complementary indicator, alongside the IUCN Red List of Threatened Species - Add a measure of degradation or land enhancement, or agricultural output
Component	**10.3 Forestry**
Key comment	- Holding the forestry industry to account for managing sustainably via this target was praised - Add fishery component (and indicators) to support broader Target (inclusive of fisheries)
Headline indicator	*10.0.2 Progress towards sustainable forest management (proportion of forest area under long-term forest management plan)*
Key comments	- Amend indicator to the *total proportion of forests managed sustainably* (rather than "*progress towards*") to align with headline indicator *10.0.1* for agriculture - Include Forest Stewardship Council certification
Component indicators	*10.3.1 Area of forest under sustainable management: total forest management certification by Forest Stewardship Council and Programme*
Key comments	- Use of the Forest Stewardship Council certification as a component indicator was supported - Indicators must evaluate the effectiveness of management, not just implementation of management actions - Clarify intention of component indicator: does this refer to sustainable forestry as a proportion of forestry, or of forests? This is vital to define to ensure the focus is sustainable forest management and does not support further loss of 'native' forests - Amend the component indicator to state that sustainable management must be biodiversity-inclusive to avoid perverse outcomes (e.g., logging primary forest) - Amend wording of component indicator *10.3.1* to state that this must be restricted to credible certification schemes; Define the reference to "*Programme*"

Suggested indicators	- Add indicator based on the reduction or cessation of the illegal timber trade - Add indicator for the resilience of forest ecosystems - Add indicator on the effectiveness of management for enhancing sustainability
Complementary indicator	*9.1.1.5. Progress towards sustainable forest management (SDG indicator 15.2.1)*
Key comment	- Use of Sustainable Development Goal indicator was supported

Target 11

"Maintain and enhance nature's contributions to regulation of air quality, quality and quantity of water, and protection from hazards and extreme events for all people.

The group raised concerns of overlap between components of Target 11 on air and water quality and Target 7 on minimising pollution. The distinction between the two and how these two targets can work together, must be clarified. Participants suggested amending Target 11 to align with the language, core elements and indicators of Target 9. Both targets aim to maintain nature's contributions to people – Target 9 ensures provisioning and cultural services through sustainable management and Target 11 protects regulating and supporting services.

Target	***Target 11 – "Maintain and enhance nature's contributions to regulation of air quality, quality and quantity of water, and protection from hazards and extreme events for all people."***
Key comments	- Target must focus on outcomes supported by specific actions, not only on actions - Achieving this target requires enforcement and other mechanisms that should be specified. - Add component on soil quality - Cross-links with the Sustainable Development goals via the indicators was praised, but these indicators may be inappropriate for a biodiversity-focused target if the focus is on nature's contributions to people - Clearer distinction from Targets 7 and 9 needed
Component	**11.1 Air quality**
Key comment	- The succinctness, reference to nature-based solutions, and recognition of nature's contributions to air quality were strongly supported
Headline indicator	*11.0.1 National environmental-economic accounts of regulation of air quality, quality and quantity of water, and protection from hazards and extreme events for all people, from ecosystems*
Key comment	- The headline indicator relies on data not yet available at a global level or for many countries.
Component indicators	*11.1.1 Annual mean levels of fine particulate matter (e.g., PM2.5 and PM10) in cities (SDG indicator 11.6.2)* *11.1.2 Mortality rate attributed to household and ambient air pollution (SGD indicator 3.9.1)*
Key comment	- Amend indicator to focus on measures of biodiversity and pollution levels, rather than nature's contributions to reducing or regulating pollution
Component	**11.2 Quality and quantity of water**
Key comment	- Component is important, clear, and specific
Headline indicator	*11.0.1 National environmental-economic accounts of regulation of air quality, quality and quantity of water, and protection from hazards and extreme events for all people, from ecosystems*
Key comments	- The inclusion of environmental accounts into the headline indicator was valued - The headline indicator relies on data that are unavailable

Component indicators	*11.2.1 Proportion of bodies of water with good ambient water quality (SDG indicator 6.3.2)* *11.2.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services) (SDG indicator 3.9.2)* *11.2.3 Level of water stress (SDG indicator 6.4.2)*
Key comments	- Shift focus to measuring outcomes for biodiversity - Component indicators should include outcomes; terms '*proportion'* '*rate'* and '*level'* must be linked to clear positive outcomes for biodiversity
Component	**11.3 Protection from hazards**
Key comment	- Recognition of the vital role nature plays in providing protection against hazards and extreme events was welcomed
Component indicator	*11.3.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population (SDG indicator 11.5.1)*
Key comments	- Indicator does not appropriately measure nature's contributions to protecting people, instead measuring harm caused by natural events - Phrase '*directly affected'* must be defined; for instance, does this include displacement within and between countries?

4.4.3 Tools and solutions for implementing and mainstreaming: Targets 14-16, 19-21

The central aim of Targets 14-21 is to provide the tools and infrastructure to successfully implement the GBF. These targets aim to ensure biodiversity values are integrated into decision making, businesses shift to nature-positive practices, people are supported to make environmentally conscious choices, sufficient financial resources are available, relevant knowledge is used to guide decision making (especially traditional knowledges), and there is equitable participation of key groups in decision making.

Target 14

"Fully integrate biodiversity values into policies, regulations, planning, development processes, poverty reduction strategies, accounts, and assessments of environmental impacts at all levels of government and across all sectors of the economy, ensuring that all activities and financial flows are aligned with biodiversity values."

A target to integrate biodiversity values into decision making and planning structures was applauded by participants. However, participants noted that the existing target is not built around the SMART criteria – Specific, Measurable, Achievable, Realistic, and Time-bound. The current indicator set is underdeveloped and incomplete, not reflective of the breadth of the target. Importantly, Target 14 to integrate biodiversity values into planning must be more distinct from Target 1 on spatial planning for land use. The suggested changes above to modify the focus of Target 1 to address the threats of land-use change will support greater differentiation between the two targets

Target	***Target 14 – "Fully integrate biodiversity values into policies, regulations, planning, development processes, poverty reduction strategies, accounts, and assessments of environmental impacts at all levels of government and across all sectors of the economy, ensuring that all activities and financial flows are aligned with biodiversity values."***
Key comments	- Not aligned with SMART criteria

	- Concerns of the challenges in linking the impacts of some elements in component 14.1 (such as financial sectors) to biodiversity; the current evidence base is small, distal, and rife with uncertainties - Private sector should be expressly mentioned to complement the government-led processes listed, as biodiversity values should be integrated into business decision-making and investment decisions by the finance sector
Suggested new text	Target 14: "*Fully **and effectively** integrate biodiversity values into policies, regulations, planning, development processes, poverty reduction strategies, accounts, and assessments of environmental impacts at all levels of government and across all sectors of the economy, ensuring that all activities and financial flows are aligned with biodiversity values.*"
Component	**14.1 Integrate biodiversity values into policies, regulations, planning, development processes and poverty reduction strategies**
Key comments	- Aim of comprehensive integration of biodiversity values across levels of planning, policies etc. was commended - Expand aim to fully and effectively integrate biodiversity values in the public and private sectors (including natural resource use) - Define biodiversity values (including monetary and non-monetary values) more clearly to support development of clear mechanisms to achieve target - Add a measurable element to target component
Suggested component indicator	- Add indicators to measure the level and effectiveness of integration
Component	**14.2 Integrate biodiversity into national accounts**
Key comments	- The addition of biodiversity in national accounts was valued - Add clearer explanation on how ecosystem services/nature's contributions to people will be captured in this target and framework
Headline indicator	*14.0.2 Integration of biodiversity into national accounting and reporting systems, defined as implementation of the System of Environmental Economic Accounting*
Key comment	- The adoption of System of Environmental Economic Accounting (SEEA) as a headline indicator was supported
Component	**14.3 Assessments of environmental impacts**
Key comments	- Shift focus to outcomes (not simply the process) – i.e., achieving positive outcomes for biodiversity via the mechanism of integrating biodiversity values into legislation - Use the mitigation hierarchy (avoidance, minimisation, restoration, and offsets) to reduce development impacts on the environment - Use of biodiversity risk assessments, specifically the IUCN Red List frameworks to capture cumulative, incremental impacts across a species or ecosystems whole distribution (not site-by-site via impact assessments) was supported - Requires sufficient resourcing
Component indicator	*14.3.1 Existing legislation for environmental impact assessment*
Key comments	- Recognition that legislation (not just policy) is vital to achieving the 2050 Vision by this indicator was praised - Including '*existing legislation'* on its own is insufficient. The *effectiveness* of the legislative system must also be evaluated
Suggested indicator	- Add indicator of the effectiveness of legislation in ensuring positive biodiversity outcomes
Component	**14.4 Aligned financial flows with biodiversity values**
Key comments	- Component useful in principle - Clearer explanation of how this concept works in practice is required

	- Create an explicit link to *Taskforce on Nature-related Financial Disclosures* for the private sector, and *Target 19* on increasing financial resources and the associated headline indicator *19.0.2* on addressing the funding gap

Target 15

"All businesses (public and private, large, medium and small) assess and report on their dependencies and impacts on biodiversity, from local to global, and progressively reduce negative impacts, by at least half and increase positive impacts, reducing biodiversity-related risks to businesses and moving towards the full sustainability of extraction and production practices, sourcing and supply chains, and use and disposal."

Participants supported a target focused on the accountability of businesses to undertake nature positive practices. Yet the level of ambition was deemed inadequate to meet the 2050 Vision, aligning with the concerns of the IUCN[11] and Business for Nature[6]. Emphasis on avoiding loss of biodiversity must be increased, due to massive challenges in compensating for losses with net positive solutions. There must be a clear link to Target 18 to ensure that perverse incentives driving biodiversity losses and loopholes allowing greenwashing must be avoided and governments must play a strong role in regulating the disclosure of nature-related risks.

Target	***Target 15 – "All businesses (public and private, large, medium and small) assess and report on their dependencies and impacts on biodiversity, from local to global, and progressively reduce negative impacts, by at least half and increase positive impacts, reducing biodiversity-related risks to businesses and moving towards the full sustainability of extraction and production practices, sourcing and supply chains, and use and disposal."***
Key comments	- Wording is convoluted - Stronger ambition and emphasis on avoiding biodiversity loss is needed - Use the emerging principles of the *Taskforce on Nature-related Financial Disclosures* as a reporting mechanism, which will likely enhance traction among businesses towards meeting the target - Indicator set is underdeveloped
Suggested new text	Target 15: "*Ensure* ***that all financial institutions and*** *businesses (public and private, large, medium and small)* ***regularly*** *assess and* ***publicly*** *report on their dependencies and impacts on biodiversity* ***along their full supply chains and practices from local to global, and accordingly avoid negative impacts and reduce biodiversity-related risks, and align all activities to a nature-positive economy.***"
Components	**15.1 Business assess and report on their dependencies and impacts on biodiversity: and** **15.2 Businesses reduce their negative impacts on biodiversity**
Suggested component indicators	- Add indicator on the percentage of businesses participating in reporting using a common framework - Add indicators on positive impacts of businesses
Component	**15.3 Reduce biodiversity-related risks to businesses**
Key comment	- Sensible and positive inclusion of a risk-based approach to business was praised – considering risks to biodiversity and resulting consequences for businesses and people's wellbeing will be vital to driving positive actions
Component	**15.4 Move towards the full sustainability of extraction and production practices, sourcing and supply chains, and use and disposals**
Key comments	- Measuring progress towards sustainability of business practices is key as it is essential that the reality of the impact of laws and regulations reflects their intent

	- Phrases 'm*ove towards'* and '*full sustainability'* are ill-defined and subjective - Add a quantitative element to support measurement of progress towards the target - Include a standard for '*full sustainability'*
Component indicator	*15.4.2 Recycling rate*
Key comment	- This is a very poor measure of progress towards full sustainability

Target 16

"Ensure that people are encouraged and enabled to make responsible choices and have access to relevant information and alternatives, taking into account cultural preferences, to reduce by at least half the waste and, where relevant the overconsumption, of food and other materials."

Target	***Target 16 – "Ensure that people are encouraged and enabled to make responsible choices and have access to relevant information and alternatives, taking into account cultural preferences, to reduce by at least half the waste and, where relevant the overconsumption, of food and other materials."***
Key comments	- Reverse phrasing to ensure the desired outcome is followed by the means of meeting the outcome - Reframe component to ensuring reductions in waste and overconsumption by educating and enabling people to make better choices
Suggested new text	Target 16: *"Ensure that people are encouraged and enabled to make responsible choices and have access to relevant information and alternatives, taking into account cultural preferences, to reduce by at least half the waste and, where relevant, the* ***unsustainable*** *overconsumption of food and other materials."*
Components	**16.1 People have access to relevant information and alternatives; and** **16.2 Reduce waste and overconsumption**
Key comment	- Assumes people will make responsible choices where they can, but many people choose not to make environmentally responsible choices

Target 19

"Increase financial resources from all sources to at least US$ 200 billion per year, including new, additional and effective financial resources, increasing by at least US$ 10 billion per year international financial flows to developing countries, leveraging private finance, and increasing domestic resource mobilization, taking into account national biodiversity finance planning, and strengthen capacity-building and technology transfer and scientific cooperation, to meet the needs for implementation, commensurate with the ambition of the goals and targets of the framework."

Participants welcomed a target on ensuring sufficient financial resources, as this underpins our capacity to fulfil all other targets. Achieving this target will require the establishment of mechanisms to support nature-positive investments. This was a key lesson from the Paris Agreement – establishing the architecture for international carbon markets was essential to enhancing private-sector investment in activities to reduce and avoid emissions.

Target	***Target 19 – "Increase financial resources from all sources to at least US$ 200 billion per year, including new, additional and effective financial resources, increasing by at least US$ 10 billion per year international financial flows to developing countries, leveraging private finance, and increasing domestic resource mobilization, taking into account national biodiversity finance planning, and strengthen capacity-building and technology transfer and***

	scientific cooperation, to meet the needs for implementation, commensurate with the ambition of the goals and targets of the framework."
Key comments	- Refer to long-term partnerships, ensure funding is provided to the operational agencies within each country, and prioritise capacity building activities in the financing - Base the dollar values of financial resourcing required on the evidence that it is sufficient to achieve the vision and goals of the GBF – it is highly unlikely this funding will be sufficient - Provide the baseline of current resources needs in the supporting information - Change US$ to a proportion of gross national income - Revise the target to US$66 billion per year (not US$10 billion), in line with the suggestion from the IUCN[11] - Reduce the overly complex expression of target wording - Components 19.1 and 19.2 must use consistent definition of '*financial resources'* - Indicators poorly align with target components
Suggested new text	*Target 19: "Increase financial resources from all sources to at least US$ 200 billion per year, including new, additional and effective financial resources, increasing by at least US$ 66 billion per year international financial flows to developing countries, leveraging private finance, and increasing domestic resource mobilization.* ***Taking*** *into account national biodiversity finance planning and strengthening capacity-building and technology transfer and scientific cooperation, to meet the needs for implementation, commensurate with the ambition of the goals and targets of the framework."*
Component	**19.1 Increase financial resources from all sources**
Key comments	- The inclusion of financial resources to come from '*all sources'* – government, private and philanthropy was praised - Qualifying monetary figures as minimums ('*at least'*) is important. - Define more clearly which funding sources count towards meeting this target - Frame the target and indicators to ensure that the additional financing is a genuine addition, and not double counting resources.
Headline indicators	*19.0.1 Official development assistance for biodiversity* *19.0.2 Public expenditure and private expenditure on conservation and sustainable use of biodiversity and ecosystems*
Key comments	- Current indicators focus on the delivery mechanisms, not monetary resources - Indicators should reflect the end-use of the financial resources to secure biodiversity outcomes
Suggested component indicators	- Add indicators that measure the monetary resources - Add a component indicator for leveraging private finance - Add component indicators that quantify the co-benefits of costs of environmental expenditure (such as for job creation, carbon returns and wellbeing) to ensure social and environmental benefits are considered alongside costs - Add a component indicator that aggregates global investments
Component	**19.2 International financial flows to developing countries**
Key comment	- Recognition that it is vital to effectively support developing countries to achieve the targets was valued
Component	**19.3 Capacity-building and technology transfer and scientific cooperation**
Key comment	- This must be done in accordance with the Accra Agenda for Action and the Paris Declaration on Aid Effectiveness[15], which is designed to accelerate progress towards ensuring any aid provided is effective at achieving the desired outcomes

Suggested component indicator	- Add component indicator that measures return on investment

Target 20

"Ensure that relevant knowledge, including the traditional knowledge, innovations and practices of Indigenous peoples and local communities with their free, prior, and informed consent, guides decision-making for the effective management of biodiversity, enabling monitoring, and by promoting awareness, education and research."

The group commended mention of '*free, prior, and informed consent*' as essential components of using different knowledge sources. However, they recommended that the target be reframed as a positive aspiration, rather than as a constraint.

Target	***Target 20 – "Ensure that relevant knowledge, including the traditional knowledge, innovations and practices of Indigenous peoples and local communities with their free, prior, and informed consent, guides decision-making for the effective management of biodiversity, enabling monitoring, and by promoting awareness, education and research."***
Key comments	- Amend target to ensure monitoring is enforced, as monitoring the effectiveness of management is vital to success - Reframe target as a positive aspiration, rather than a constraint
Suggested new text	*Target 20: "Ensure that relevant knowledge, including* ***science-based and*** *traditional knowledge, innovations and practices of Indigenous peoples and local communities with their free, prior, and informed consent, guides decision-making for the effective management of biodiversity,* ***enforcing*** *monitoring, and by promoting awareness, education and research."* *Target 20: "Ensure that relevant knowledge, including the traditional knowledge, innovations and practices of Indigenous peoples and local communities with their free, prior, and informed consent, guides decision-making for the effective management of biodiversity* ***and culturally appropriate sustainable development****, enabling monitoring, and by promoting* ***respect for rights,*** *awareness, education and research."*
Component	**20.1 Ensure that relevant knowledge guides decision-making**
Key comment	- define '*relevant knowledge'* more clearly o Empower Indigenous peoples and local communities to decide what is '*relevant'* in relation to traditional knowledge - Use language to ensure that traditional knowledge cannot be removed from the knowledge holders and ensure use of traditional knowledge is matched with participation of Indigenous peoples and local communities
Headline indicator	*20.0.1 Indicator on biodiversity information and monitoring, including traditional knowledge, for management*
Key comment	- Indicator is vague and mismatched with the target
Suggested component indicators	- Add a component indicator to measure monitoring - Add a component indicator for accountability of ensuring knowledge guides decision making
Component	**20.2 Promote awareness, education and research**
Key comments	- Mainstreaming knowledge on biodiversity management into the curricular was commended - Educating the public (adults and children) is fundamental to supporting positive biodiversity outcomes - Component is vague and not measurable

Component indicator	*20.2.1 Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equity and human rights, are mainstreamed at all levels in: (a) national education policies, (b) curricula, (c) teacher education and (d) student assessments (SDG indicator 4.7.1)*
Key comment	- Indicator does not measure change in research outputs

Target 21

"Ensure equitable and effective participation in decision-making related to biodiversity by Indigenous peoples and local communities, and respect their rights over lands, territories and resources, as well as by women and girls, and youth."

Participants endorsed that the target emphasises equity and participation, includes '*women and girls and youth*', and is reflected in several other targets. Yet the target should also include environmental human rights defenders – the UN defines these as "*individuals and groups who, in their personal or professional capacity and in a peaceful manner, strive to protect and promote human rights relating to the environment, including water, air, land, flora and fauna*"[16].

Target	***Target 21 – "Ensure equitable and effective participation in decision-making related to biodiversity by Indigenous peoples and local communities, and respect their rights over lands, territories and resources, as well as by women and girls, and youth."***
Key comment	- Add environmental human rights defenders
Components	**21.1 IPLC; and** **21.2 Women and girls; and** **21.3 Youth**
Key comment	- inclusion of '*women and girls, and youth*' was praised
Headline indicator	*21.0.1 Degree to which Indigenous peoples and local communities, women and girls as well as youth participate in decision-making related to biodiversity* *21.0.2 Land tenure in the traditional territories of Indigenous peoples and local communities*
Key comments	- Indicators are tangible and strong measures for the target. - Separate out the indicator for youth from Indigenous peoples and local communities and women and girls Indicator *21.0.2* praised for capturing land tenure in traditional territories of Indigenous peoples and local communities
Suggested component indicator	- Add indicators for equitability and effectiveness of consultations

5. Summaries of plenary presentations

5.1 Australian government perspective on the post-2020 global biodiversity framework

Dr. Alison McMorrow, Biodiversity Conservation Division, Australian Government

Alison McMorrow's presentation provided background on the Convention of Biological Diversity (CBD), the progress to date on the post-2020 global biodiversity framework (GBF) and Australia's current focus areas for the GBF negotiations in the lead up to the final meeting in Kunming, China in 2022.

Alison noted that Australia will have greater capacity to contribute to some targets more than others and discussed Australia's key focal areas for engagement in the GBF negotiations covering the following areas:

- Marine and coastal biodiversity
- Effective protected area management
- Invasive alien species (IAS) management
- Sustainable use and waste management through a circular economy
- Equitable participation of Indigenous Peoples and Local Communities in the design and implementation of the GBF

Alison also noted that Australia has been increasing their engagement in the *Species* elements of the framework (e.g., Goal A, Milestones A2 and A3 and Targets 4 and 5) given healthy populations of species and reducing extinction risks are core components of the GBF.

The full recording of the presentation can be found here or via the ACIUCN website https://www.aciucn.org.au/

5.2 First Draft of the GBF – What's good, what's bad, what's missing?

Professor James Watson, University of Queensland

James Watson presented his perspectives on the strengths, weaknesses, and important omissions from the first draft of the GBF. He outlined several features as key strengths of the GBF:

- The Vision for 2050 is ambitious and there are clear pathways set out by the GBF goals to meet the vision using a theory of change.
- The current draft defines clear biodiversity outcomes for species, ecosystems, and genetic diversity and outlines the actions required to meet those outcomes.
- The GBF's approach mirrors the human health response of emergency care (i.e., preventing extinctions or collapse), rehabilitation (i.e., restoration), and preventative health actions (i.e., preventing declines or degradation).
- There is a goal specifically for ecosystem conservation, mirroring the rising appreciation for the vital role of ecosystems in supporting a healthy planet.

Despite notable strengths of the GBF, James emphasised several shortcomings in the current draft, including:

- The lack of impetus to manage land-use change to avoid further losses of species and ecosystems. Given Australia's poor track record on species extinctions, such a mediocre ambition will likely not curb the rapidly accumulating number of extinct or critically endangered species.
- The weak level of ambition of Target 3 on protecting 30% of land and sea areas, which is likely to be a significant underestimate and not founded on ecological evidence. Protected Areas must effectively protect biodiversity. There should be appropriate planning to ensure the remaining 70% is not further degraded, and clear definitions are needed for how other effective conservation measures (OECMs) can meaningfully contribute to meeting the target.
    - In Australia, 30% coverage is likely insufficient to protect threatened species as the species' distributions span far beyond the protected areas network.
    - While the Australian marine and terrestrial protected areas network had grown since 2010, the representation of Key Biodiversity Areas, bioregions, ecoregions, and several species groups (mammals, amphibians, reptiles) has only marginally increased which means Australia is still placing protected areas in the wrong spots.

James concluded by reinforcing that Australia is well placed to achieve an ambitious target for Protected Areas – we have the data, scientific resources, and public support.

The full recording of the presentation can be found here or via the ACIUCN website https://www.aciucn.org.au/

5.3 Inclusion of Indigenous Peoples' perspective

Chrissy Grant, International Indigenous Peoples' Forum on World Heritage, International Indigenous Peoples' Forum (IIFB) on Biodiversity, Wet Tropics Management Authority

Chrissy Grant's presentation focused on outlining the vital role that Indigenous peoples and local communities have and should have in developing and implementing the GBF. Chrissy noted that the Indigenous Peoples' Forum on Biodiversity (IIFB) will continue to have discussions with State Parties and negotiate on wording until the GBF is a final document. Chrissy discussed the following key points:

- The IIFB has had an important role in the design of the GBF.
- The target in the GBF to protect 30% of land and of sea areas by 2030 was of great concern to Indigenous peoples as these communities rely on the land for their livelihood.
- Governments must commit to allowing Indigenous peoples and local communities to remain on their lands and continue to undertake traditional management practices, which have been shown to maintain and improve biodiversity.
- She praised Target 21, which originated from a submission from the IIFB.
- She suggested changes to the GBF that centred on ensuring Indigenous peoples and local communities rights, traditional knowledge, and positive contributions to biodiversity being recognised, respected, and maintained, that Indigenous peoples and local communities meaningfully participate in the GBF process, and that the GBF is underpinned by human-rights based principles. These suggestions are included in the relevant sections above, or in *7. Supplementary information* where the target or GBF section was not discussed during the workshop.

The full recording of the presentation can be found here or via the ACIUCN website https://www.aciucn.org.au/

5.4 Science for an ecosystem goal and indicators

Professor Emily Nicholson, Deakin University

Emily Nicholson presented an overview of why an ecosystem goal is needed in the post-2020 framework, why it is now possible, and how it can be framed and met, drawing from her recent paper, Nicholson et al.[17]. Her key points included:

- The inclusion of an ecosystem goal and indicators is critical to achieving Goal A, B and C, yet the current draft is not adequate for sustaining ecosystems.
- Recent scientific and policy advances have made design and implementation of an ecosystem goal possible, including:
    - Global standards for ecosystem risk assessment and accounting, in the IUCN Red List of Ecosystems (Figure 1), and UN System for Environmental Economic Accounting ecosystem accounting
    - A standardised framework for classifying and grouping ecosystem types (Keith et al 2021).
    - Definitions in Australian policies and environmental legislation that are consistent with the IUCN Red List of Ecosystems.
    - Remote sensing advances that now allow improved monitoring of ecosystems.
- An effective ecosystem goal to halt and reverse biodiversity loss needs to include the risk of collapse and measures of ecosystem area and integrity.
- Gains in ecosystem area and integrity rely on restoration and recovery, but prevention of habitat loss is much cheaper and more effective.
- The GBF monitoring framework is critical to supporting decision making and monitoring their impacts, but good indicators are needed for all ecosystems – indicators linking to specific ecosystem types, ecosystem collapse, and ecosystem function are largely lacking. Testing is needed to allow reliable interpretation of trends linked to meaningful change in ecosystems.
- An ongoing and open process to identify fit-for-purpose indicators will be essential, as data and indicator availability increases and improves.
- Australia is well placed to implement the GBF due to wealth, strong governance and global leadership in ecosystem and conservation science.
- Australia already has the inclusive infrastructure to achieve the GBF goals, including working alongside Indigenous peoples and rural communities through socially and environmentally beneficial programs, such as Landcare and Indigenous Protected Areas; building on these programs can support sustainable land management and enhance quality of life and well-being in rural and urban areas.

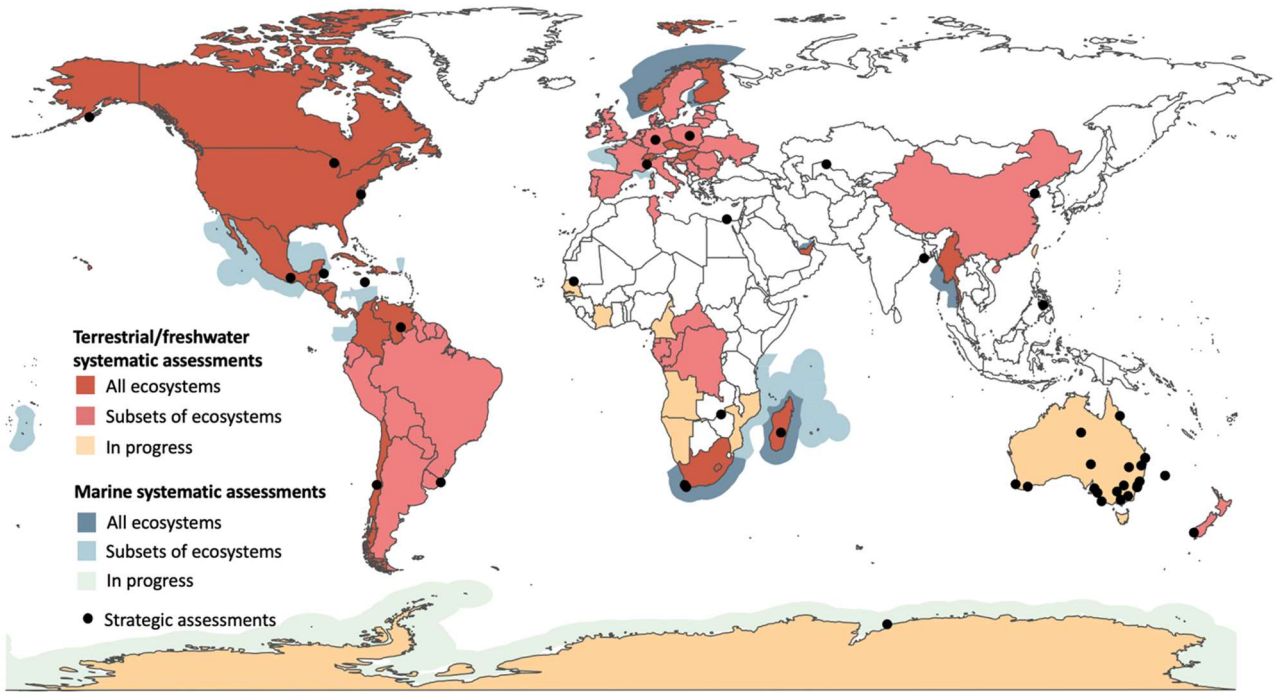

Figure 1. Map of ecosystems assessed using the IUCN Red List of Ecosystem protocol, with pink and red showing completed assessments, and yellow those underway.

The full recording of the presentation can be found here in two parts Part A & Part B or via the ACIUCN website https://www.aciucn.org.au/

5.5 Climate change and nature

Professor Mark Howden, Australian National University Institute for Climate, Energy and Disaster Solutions

Mark Howden's presentation described the importance of co-managing the climate crisis and biodiversity crisis. His main points were:

- Despite the 2015 Paris Agreement to reduce emissions, we have seen record levels of methane, nitrous oxide, and other greenhouse gases.
- Global air temperatures are rising, rainfall patterns changing, and more extreme weather events are predicted.
- Predictions and recent observations show widespread impacts on biodiversity from climate change directly and via exacerbation of other threats, such as land-use change, pests, and disease.
- The Glasgow 2021 commitments represent a trajectory of intermediate warming (1.8-2.7°C), yet to meet the Paris Agreement, emissions must drop below zero by 2070[1] (Figure 2).
- The necessary actions to transition to a sustainable (net zero emissions) trajectory are not being sufficiently implemented due to financial and institutional barriers.
- Reducing emissions will require use of nature-based solutions, but these aren't a silver bullet to achieve the goal and solve a human-driven problem.
- Climate change should be a central focus of the GBF as the goals and targets cannot be met without considering climate change (Figure 3). We must be proactive on reducing emissions and climate adaptations to manage the impacts of climate change

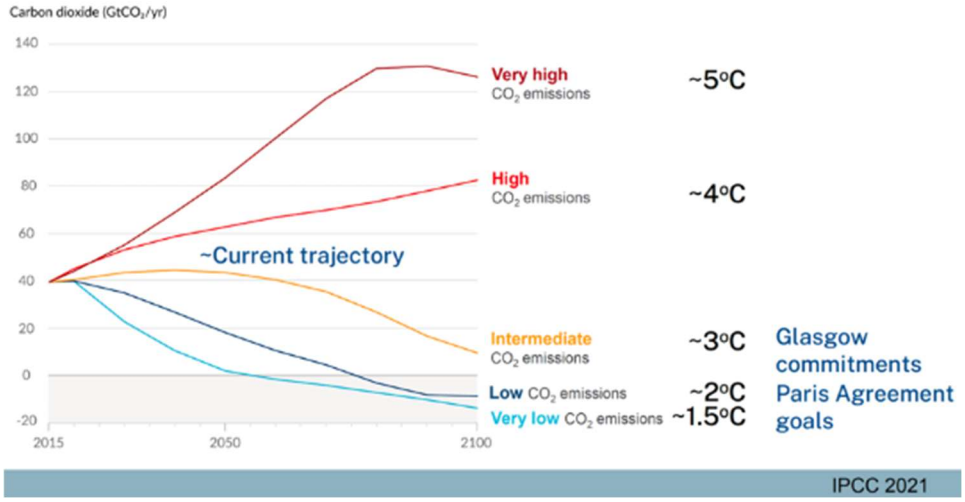

Figure 2. Alternative emissions scenarios and predicted degrees of warming. Adapted from IPCC (2021)

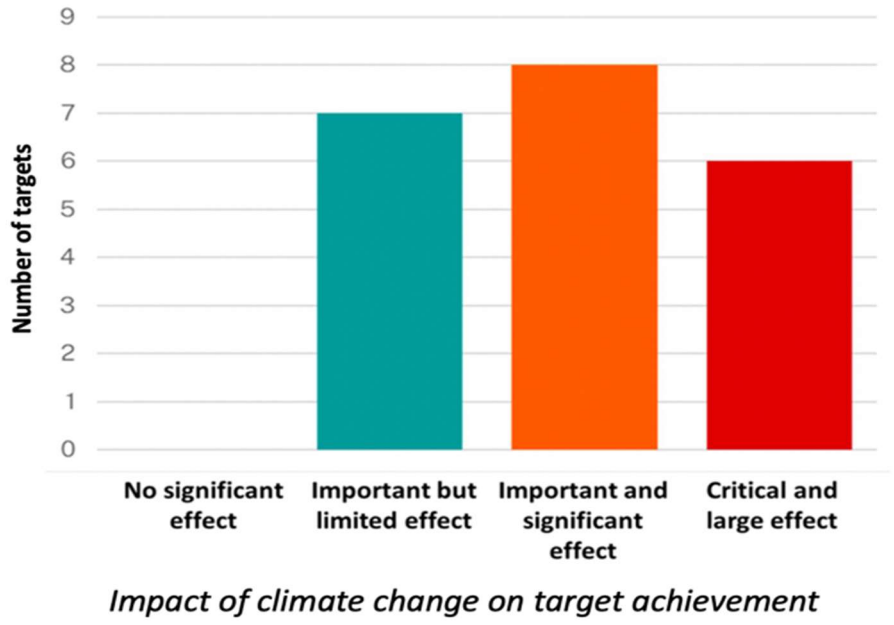

Figure 3. Analysis by Mark Howden indicating the level to which each GBF target is affected by climate change.

A full copy of the PowerPoint slides can be found here or via the ACIUCN website https://www.aciucn.org.au/

5.6 Mainstreaming biodiversity in the private sector

Laura Waterford, Pollination Group

Laura Waterford's session outlined the recent shift in the private sector towards wanting to understand nature loss and the negative implications for businesses. She explained that this was prompted by two key factors:

1. A large body of evidence demonstrates that nature loss, like climate change, presents a systemic financial risk to the global economy, e.g., the Dasgupta Review[18].

2. There is significant political momentum building for a transition to a "nature-positive economy" and the GBF is anticipated to become the "Paris Agreement for nature" in many respects.

Laura explained the urgent need to transition the economy to address both the nature-loss crisis and the climate crisis, and how the GBF can play a vital role:

- The launch of the Taskforce on Nature-related Financial Disclosures has underscored that investors will increasingly expect businesses to meaningfully report on and manage their impacts and dependencies on nature (i.e., their nature-related risks and opportunities).
- Target setting will likely be important for corporates as it provides a powerful signal to investors that the organisation is committed to contributing to the realisation of a nature positive economy. The GBF is expected to drive a push for businesses to align their nature-related targets with the goals of the GBF, and nature positivity more broadly.
- "Nature positive" language is not included in the GBF draft, and the current phrasing, which calls for '*urgent action … to put biodiversity on a path to recovery by 2030*', leaves significant scope for loss of nature over the coming decade before 'bending the curve' by 2030. Addressing this issue would likely have a significant impact on the level of ambition adopted by corporates in mainstreaming biodiversity across the private sector.
- There must be a clear signal for the private sector for how and where to invest capital in nature to manage their risks and to take advantage of new opportunities. This should be clearly outlined in the final GBF to help mainstream the use of private capital for nature and biodiversity.

Laura also provided comments on the relevance of several proposed targets of the GBF to mainstreaming biodiversity across the private sector and highlighted opportunities to enhance the contribution from the private sector (see *6. 2030 Targets and indicators*).

The full recording of the presentation can be found here or via the ACIUCN website https://www.aciucn.org.au/

5.7 Governance and accountability

Dr Michelle Lim, Macquarie University

Michelle Lim's presentation outlined the importance of shifting the Convention from an instrument of aspiration to one of action. Her presentation examined the history of the Convention and described the fundamental and urgent changes required to stem global biodiversity loss. She discussed several key points:

- Since its inception in 1992, the CBD has aimed to halt serious biodiversity loss (of genes, species, and ecosystems) and ensure sustainable use and recognition of the diverse ways we value nature.
- The CBD is legally binding to the extent that contracting parties are obligated not to act in ways which are contrary to the object and purpose of the Convention. However, the multiple caveats across the majority of the provisions of the Convention (e.g., 'as far as possible and as appropriate'; 'subject to national legislation' etc) limits accountability in actions and reporting; only article 26 on reporting, which has taken the form of National Biodiversity Strategies and Action Plans (NBSAPs), places specific obligations on parties.
- The Paris Agreement, under the United Nations Framework Convention on Climate Change, has binding and non-binding components. The GBF under the CBD does not share a similar

legal status. In other words, the GBF, in its current form, does not constitute a legally binding instrument akin to the Paris Agreement and certainly does not have the same standing legally as the binding protocols of the CBD (i.e., Nagoya and Cartagena Protocols).

- Strong commitments from countries in Kunming, including through binding obligations, will be critical to demonstrate how states are contributing to avoiding a 6th mass extinction.
- Transformational change is now needed, beyond platitudes towards change that recognises the interdependence of resilient ecosystems and thriving humans.
- Indigenous peoples and local communities must play a central role developing and realising the goals of the GBF.
- Our objective should be to enhance biodiversity, rather than being in the same or a worse state by 2030. Binding commitments, or at least greater accountability, are essential to avoid the targets failing due to the unwillingness of countries to back targets with obligations.
- The GBF shows several advances based on lessons from the successes and failures of previous frameworks, including:

    1) Effective use of targets can enhance the credibility of agreements, but we must avoid conflating actions and outcomes
    2) Effective goal setting is valuable for creating a collective plan for countries to implement
    3) Stronger mechanisms are needed for ensuring the accountability of parties via built-in reporting processes

The full recording of the presentation can be found here or via the ACIUCN website https://www.aciucn.org.au/

6. Implications and implementation for Australia

Professor James Watson, University of Queensland
James has regularly attended CBD COP and SBBSTA meetings over the past decade and gave the keynote address at the CBD area-based open-ended working group that nations attended that generated the new draft protected-area target in Montreal in 2019

In June 1993 Australia ratified the Convention on Biological Diversity (CBD) signing up to the inspiring 2050 Vision 'of a world living in harmony with nature'. Yet, nearly thirty years on and halfway to 2050, the nation faces a biodiversity crisis. After failing to fully achieve any of the CBD 2010 targets, the Australian government could play a valuable leadership role on the global stage and ensure the goals and targets set in the Post-2020 GBF can deliver the ambition set out in the 2050 CBD Vision.

But regardless of what happens in the closing political process of the Post-2020 GBF, 2022 should be the year that the Australian government re-embraces the Vision of the CBD. The vision can frame the way in which Australian conservation is delivered, necessitating fundamental changes in the way that conservation actions are undertaken and tracked. There are four ways that the Australian government can help society maximise the biodiversity benefits of their conservation actions this decade, while both operating within the framing of the GBF 2030 Action Targets and positioning themselves to deliver on the 2050 Vision. These recommendations are founded on two key notions: (i) achieving better outcomes from land and sea set aside for biodiversity conservation; and (ii) limiting environmental impacts in areas not prioritised for biodiversity conservation. And importantly, they can be done right now.

1. Develop a National Conservation Blueprint
We should identify and prioritise the protection of those places where we need to halt biodiversity loss, places that house the last remaining populations of a species and the last samples of an ecosystem type and those remaining last intact ecosystems which are so critical in a time of climate change. There are proven methods on how to identify these areas, from Key Biodiversity Area mapping to using IUCN Green List and Red List protocols for ecosystems and species to identify and protect critical habitat. To secure success, we must further embed First Nations' extensive experience and perspectives built up over thousands of years into both conservation planning and practice.

Australia has thousands of years of land and sea management knowledge and some of the best conservation ecologists and conservation planners on the planet, willing to engage their time to get these efforts going. Developing a national 'blueprint' for what is needed for Australia's biodiversity and which areas must be conserved and how to conserve these places (e.g. national reserve system, private land conservation etc) is now urgent and can be done.

2. Reflecting the true value of biodiversity
All the recent assessments undertaken on the status of Australia's biodiversity have found that Australian federal and state governments are not allocating enough resources to achieve effective conservation outcomes[19]. Moreover, many policymakers are still seeing nature conservation as a financial burden, despite biodiversity loss being a material financial risk at all levels of economic activity. A 2020 World Economic Forum[20] report estimated that more than half the world's total GDP - US$44 trillion - is at risk due to nature-related dependencies, where risks include operational disruptions and asset devaluation faced by major economic sectors such as fisheries, forestry, mining, agriculture, and urbanisation projects. Australia needs to stop viewing biodiversity as something that can be traded-off and instead recognize its actual, realised contribution to national and global economies. This can only happen when biodiversity conservation is recognised in how it

formally contributes to economies in ways that have been vastly under-estimated to date. Critical to this is the measurement of co-benefits (such as greenhouse gas emissions) which should help the establishment of funding mechanisms that can support conservation action at the scale required. It is possible to formally account for nature-based contributions to economies (including the System of Environmental Economic Accounting (SEEA[21]) and Australia could lead the way in doing this.

3. Honest reporting for biodiversity

Realising the CBD's Vision is only possible if Australia can make honest assessments about both the state of biodiversity, and how conservation actions impact biodiversity[22]. The current accounting frameworks for assessing conservation impact within the CBD Framework – and within Australia's own internal environmental assessment frameworks- are not transparent or are poor reflections of reality[23]. Use of these frameworks means we are over-estimating progress toward conservation outcomes[24]. At the same time, these frameworks also fail to identify conservation actions that do an exceptional job at retaining or improving elements of biodiversity including those by local communities, private citizens and Indigenous peoples. Australia can easily adapt impact assessment frameworks such that they are clearer about what actions on land and sea actually 'count' towards the achievement of conservation outcomes, and the difference these actions are making to biodiversity[25].

For example, right now, any site that Australia designates as an area set aside for biodiversity counts towards progress, regardless of the difference that designation makes for biodiversity. However, it's crucial that poorly managed sites do not count toward the 30% by 2030 target. Further, the contribution of protected areas to preventing biodiversity loss varies enormously, based on whether they are located in places that are beneficial to conservation outcomes and whether they would otherwise be at risk. A reporting system should build on efforts to articulate the role and aim of each site, and the contribution of each to the outcome. We should take advantage of systems like the IUCN Green List and opportunities here to promote and champion co-management with Aboriginal custodians / traditional owners.

Importantly, this kind of honest and transparent accounting need not preclude sites without substantial positive biodiversity outcomes from contributing toward other goals of the GBF, including those that aim to meet people's needs through sustainable use and benefit sharing. The adoption of rigorous accounting mechanisms, focused on net outcomes, will help identify gaps in achievement, and required funding whilst helping inform the necessary planning needed for a holistic conservation agenda.

4. Act on the mandate to mainstream biodiversity

Calls for needing to integrate biodiversity values into policies, regulations, planning, and accounts at all government, corporate, and community levels have quickly gained prominence, and with good reason. Most biodiversity occurs beyond protected and conserved areas[26]. Moreover, the dramatic increase in area used for mining, agriculture, fisheries, energy, and water seen over the past thirty years is likely to continue. All this means that the targets aimed at reducing threats to biodiversity in the GBF Framework will not be achieved until a united, comprehensive plan is in place that forces commercial actors, government, and non-government bodies, and even communities and individuals to account for biodiversity across the spectrum of their activities.

Much of the science, technology or know-how required to deliver on the mainstreaming and implementation targets in the GBF are on hand. For example, The Mitigation and Conservation Hierarchy (MCH)[27] provides a scalable framework that can coordinate, prioritize, and monitor the outcomes of many actions aimed at achieving biodiversity goals. Australia should switch from environmental offsetting protocols that simply displace conservation funding or exacerbate rates of biodiversity loss (for example, averted loss offsetting) to emerging protocols that align

compensation with desired trajectories for imperilled species or ecosystems. It should be used by all sectors that impact Australia's biodiversity, not just the mining sector.

For biodiversity mainstreaming to be successful, conservation can no longer remain reactionary with respect to the impacts of economic development. While impact mitigation has its place, broader questions about limits to growth and alternatives to 'business-as-usual' development must not just be discussed but worked through to execution. The removal of subsidies that facilitate habitat destruction and biodiversity loss are one example of what can be done by governments at state and federal levels.

One issue Australia, and most nations face in integrating and mainstreaming biodiversity into policies, regulations, planning, and action is that there is no obvious independent organisation providing oversight to assess how we are faring in terms of biodiversity conservation. An independent organisation could be created whose role is to audit and validate progress towards national and international commitments. This concept of accountability was captured in the foundational Rio Principles of the CBD in 1993 but has never been operationalised.

Importantly, efforts to mainstream conservation should be enacted in a way that complements the custodianship of Indigenous people, and only where actions to retain or restore biodiversity align with the aspirations and values of local communities. Indeed, the leadership of Indigenous custodians will be essential to these endeavours.

Conclusion

The actions that we all take will make or break our chances of living in harmony with nature by 2050. If funding of polices and action matches ambition, and the economic contribution of biodiversity to the national economy drives the take up of established tools and methods to put the concept of biodiversity mainstreaming and independent accountability into widespread practice, there is every chance the Vision of the CBD can be achieved.

7. Supplementary information

Chrissy Grant provided suggested changes to the GBF for targets and sections that were not discussed during the workshop. The original text (grey) and suggested amendments (white) are included in the table below.

Target	***Target 13 – "Implement measures at global level and in all countries to facilitate access to genetic resources and to ensure the fair and equitable sharing of benefits arising from the use of genetic resources and, as relevant, of associated traditional knowledge, including through mutually agreed terms and prior and informed consent."***
Suggested new text	Target 13 – "*Implement measures at global level and in all countries to facilitate access to genetic resources and to ensure the fair and equitable sharing of benefits arising from the use of genetic resources,* ***biological resources, ecosystem services, derivative, digital sequence information*** *and as relevant, of associated traditional knowledge, including through mutually agreed terms and* ***free****, prior and informed consent*."
Section	***G. 2030 action targets – "12. The framework has 21 action-oriented targets for urgent action over the decade to 2030. The actions set out in each target need to be initiated immediately and completed by 2030. Together, the results will enable achievement of the 2030 milestones and of the outcome-oriented goals for 2050. Actions to reach these targets should be implemented consistently and in harmony with the Convention on Biological Diversity and its Protocols and other relevant international obligations, taking into account national socioeconomic conditions"***
Suggested new text	*G. 2030 action targets –* "12. *The framework has 21 action-oriented targets for urgent action over the decade to 2030. The actions set out in each target need to be initiated immediately and completed by 2030,* ***emphasising Targets 20 and 21 are cross-cutting targets applicable to the achieving all other targets****. Together, the results will enable achievement of the 2030 milestones and of the outcome-oriented goals for 2050. Actions to reach these targets through be implemented consistently and in harmony with the Convention of Biological Diversity and its Protocols,* ***human rights obligations*** *and other relevant international obligations, taking into account national socio-economic conditions*
Section	***H. Implementation support mechanisms – "13. Implementation of the framework and achievement of its goals and targets will be supported through support mechanisms under the Convention on Biological Diversity, including the financial mechanism, and strategies for resource mobilization, capacity-building and development, technical and scientific cooperation and technology transfer, knowledge management as well as through relevant mecahnisms [sic] under other conventions and international processes."***
Suggested new text	*H. Implementation support mechanisms –* "13. *Implementation of the framework and achievement of its goals and targets will be supported through mechanisms under the Convention on Biological Diversity, including the financial mechanism, and strategies for resource mobilization, capacity-building and development, technical and scientific cooperation and technology transfer, knowledge management,* ***Article 8(j) and related provisions, customary sustainable use*** *as well as through relevant mechanisms under other conventions and international processes.*"
Section	***I. Enabling condition – "14. The implementation of the global biodiversity framework requires integrative governance and***

	whole-of-government approaches to ensure policy coherence and effectiveness, political will and recognition at the highest levels of government."
Suggested new text	*I. Enabling condition –* "14. *The implementation of the global biodiversity framework requires a* ***human rights-based approach****, integrative and* ***equitable*** *governance and whole-of-government approaches to ensure policy coherence and effective, political will and recognition at the highest levels of government.*" *Additional paragraph in I. Enabling condition –* ***"15bis. All activities taken under the post-2020 Biodiversity Framework must be based on human rights principles such as those contained in the Universal Declaration of Human Rights, the United Nations Declaration on the Rights of Indigenous Peoples, ILO Convention 169, the Akwe:kon Guidelines and the Mo'otz Kuxtal Voluntary Guidelines, and which include universality, equity, equality, inclusiveness, and non-discrimination, respect for all human rights of all persons and peoples as indivisible, including women and youth, recognition of rights to customary sustainable use of and secure tenure for lands, territories, waters, and resources, the free, prior, and informed consent of Indigenous peoples and local communities, and of the protection of human rights defenders.*"**
Section	***J. Responsibility and transparency – "18. The successful implementation of the framework requires responsibility and transparency, which will be supported by effective mechanisms for planning, monitoring, reporting and review. Countries, Parties to the Convention, have a responsibility to implement mechanisms for planning, monitoring, reporting and review.13 These mechanisms allow for transparent communication of progress to all, timely course correction and input in the preparation of the next global biodiversity framework, while minimizing the burden at the national and international levels, by:*** ***(a) Establishing national targets as part of national strategies and action plans and as contributions towards the achievement of the global targets;*** ***(b) Reporting national targets to enable the collation of national targets in relation to the global action targets, as needed, and their adjustment to match the global action targets;*** ***(c) Enabling the evaluation of national and collective actions against targets***
Suggested new text	*J. Responsibility and transparency –* "*18. The successful implementation of the framework required responsibility and transparency, which will be supported by effective mechanisms for planning, monitoring,* ***including community-based monitoring information systems and follow-ups,*** *reporting and review. Countries, Parties to the Convention, have a responsibility to implement mechanisms for planning, monitoring, reporting and review,* ***with the full and effective participation of IPLCs and relevant stakeholders.*** *Theses mechanisms allow for transparent communication of progress to all, timely course correction and input in the preparation of the next global biodiversity framework, while minimizing the burden at the national and international levels, by:* a) *Establishing national targets as part of national strategies and action plans and as contributions towards the achievement of the global targets;* b) *Reporting national targets to enable the collation of national targets in relation to the global action targets, as needed, and their adjustment to match the global action targets;*

	c) *Enabling the evaluation of national and collective actions against targets."*
Section	***J. Responsibility and transparency – "20. The development of additional and complimentary approaches is encouraged to allow other actors to contribute to the implementation of the framework and report on commitments and actions."***
Suggested new text	*J. Responsibility and transparency – "20. The development of additional and complementary approaches is encouraged to allow other actors to contribute to the implementation of the framework and report on commitments and actions including* ***IPLC reporting and review through CBMIS and LBO.***"
Section	***K. Outreach, awareness and uptake – "21. Outreach, awareness and uptake of the post-2020 global biodiversity framework by all stakeholders is essential to effective implementation, including by:*** ***(a) Increasing understanding, awareness and appreciation of the values of biodiversity, including the associated knowledge, values and approaches used by Indigenous peoples and local communities;*** ***(b) Raising awareness of all actors of the existence of the goals and targets of the post-2020 global biodiversity framework and progress made towards their achievement;*** ***(c) Promoting or developing platforms and partnerships, including with media and civil society, to share information on successes, lessons learned and experiences in acting for biodiversity.***
Suggested new text	*K. Outreach, awareness and uptake – "21. Outreach, awareness and uptake of the post-2020 global biodiversity framework by all stakeholders is essential to effective implementation, including by:* a) *Increasing understanding, awareness and appreciation of the values of biodiversity, including the associated* ***traditional*** *knowledge, values and approaches used by Indigenous peoples and local communities;* b) *Raising awareness of all actors of the existence of the goals and targets of the post-2020 global biodiversity framework and progress made towards their achievement;* c) *Promoting or developing platforms and partnership, including with* ***local and national*** *media and civil society, to share information on successes, lessons learned and experiences in acting for biodiversity.*"

8. References

1. United Nations. *Paris Agreement*. *Towards a Climate-Neutral Europe: Curbing the Trend* 1–27 (2015). doi:10.4324/9789276082569-2.
2. UNFCCC. *CP. 26 Glasgow Climate Pact Advance unedited version Decision*. (2021).
3. CBD. Strategic plan for biodiversity 2011–2020, including Aichi biodiversity targets. 1–353 (2010).
4. IPBES. *The global assessment report on biodiversity and ecosystem services Summary for Policymakers*. (IPBES secretariat, 2019). doi:10.2750/arp.36.13.
5. Spencer-Smith, E. T. *et al. Starting the conversation on Australia ' s priorities for the Post-2020 Global Biodiversity Framework A synthesis of views*. (2020).
6. Business for Nature. *Position on the Draft 1 of the Post-2020 Global Biodiversity Framework of the Biological Convention on Biodiversity (CBD)*. (2021).
7. CBD/WG. *Glossary for the first draft of the post-2020 global biodiversity framework.* (2021).
8. CBD/WG. *Glossary for the first draft of the post-2020 global biodiversity framework.* (2021).
9. CBD/WG. *One-pagers on the goals and targets of the first draft of the post-2020 global biodiversity framework*. (2021).
10. CBD. *Nagoya Protocol on Access To Genetic Resources and the Fair and Equitable Sharing of Benefits Arising From Their Utilization To the Convention on Biological Diversity*. https://www.cbd.int/abs/text/ (2011).
11. IUCN. *IUCN's Key Messages First Draft of the Post-2020 Global Biodiversity Framework Convention*. (2021).
12. CBD/SBSTTA. Update of the zero draft of the post-2020 global biodiversity framework. (2020).
13. UNFCCC. United Nations Framework Convention on Climate Change. *United Nations Fram. Conv. Clim. Chang.* 1–33 (1992).
14. IUCN. *IUCN's position paper for resumed sessions CBD SBSTTA24-SBI3-OEWG3*. (2022).
15. OECD. *Paris Declaration on Aid Effectiveness*. (2005).
16. UN General Assembly. *Report of the Special Rapporteur on the situation of human rights defenders*. 1–27 (2016).
17. Nicholson, E. *et al.* Scientific foundations for an ecosystem goal, milestones and indicators for the post-2020 Global Biodiversity Framework. *Nat. Ecol. Evol.* 1–26 (2021).
18. Dasgupta, P. *The Economics of Biodiversity: The Dasgupta Review.* (2021).
19. Jackson, W. *et al. Australia state of the environment 2016: overview, independent report to the Australian Government Minister for the Environment and Energy, Australian Government Department of the Environment and Energy, Canberra*. (2016).
20. WEF. *Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy*. *New Nature Economy* http://www3.weforum.org/docs/WEF_New_Nature_Economy_Report_2020.pdf (2020).
21. United Nations. System of Environmental-Economic Accounting — Ecosystem Accounting (SEEA EA). White cover publication, pre-edited text subject to official editing. **5**, 362 (2021).
22. Maron, M. *et al.* Setting robust biodiversity goals. *Conserv. Lett.* 1–8 (2021) doi:10.1111/conl.12816.
23. Maxwell, S. L. *et al.* Area-based conservation in the twenty-first century. *Nature* **586**, 217–227 (2020).
24. Barnes, M. D., Glew, L., Wyborn, C. & Craigie, I. D. Prevent perverse outcomes from global protected area policy. *Nat. Ecol. Evol.* **2**, 759–762 (2018).
25. Watson, J. E. M. *et al.* Bolder science needed now for protected areas. *Conserv. Biol.* **30**, 243–248 (2016).

26. Kearney, S. G. *et al.* Saving species beyond the protected area fence: Threats must be managed across multiple land tenure types to secure Australia's endangered species. *Conserv. Sci. Pract.* **4**, 1–15 (2022).
27. Milner-Gulland, E. J. *et al.* Four steps for the Earth: mainstreaming the post-2020 global biodiversity framework. *One Earth* **4**, 75–87 (2021).
28. Forest Peoples Programme. *Local Biodiversity Outlooks 2. The contributions of indigenous peoples and local communities to the implementation of the Strategic Plan for Biodiversity 2011-2020 and to renewing nature and cultures*. *Global Biodiversity Outlook* (2020).