

INFORMATION DOCUMENT ON THE GLOBAL SPECIES ACTION PLAN

Submission to the Fifteenth meeting of the Conference of the Parties to the Convention on Biological Diversity (Part Two)

Cover notes

At the OEWG-3, the [first information document on the Global Species Action Plan](#) was submitted, calling for the development of the GSAP and a programme of work on species conservation under the new post-2020 Global Biodiversity Framework.

Since then, the draft GSAP has been further developed by IUCN, IUCN Commissions, IUCN Member organisations and Partners, in consultation with the Secretariats of the Convention on Biological Diversity, Convention on International Trade in Endangered Species of Wild Fauna and Flora, Convention on the Conservation of Migratory Species of Wild Animals, International Plant Protection Convention, International Whaling Commission, the International Treaty on Plant Genetic Resources for Food and Agriculture, Ramsar Convention, World Heritage Convention.

We would like to submit the GSAP draft document below as an Information Document to the Fifteenth meeting of the Conference of the Parties to the Convention on Biological Diversity (Part Two for Parties and stakeholders for your review, inputs, and discussion.

This draft version 7 of GSAP is based on the [First draft of the post-2020 GBF](#) issued on 5 July 2021. The GSAP draft will be amended to align with the final GBF text as adopted at CBD COP-15.

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THE GLOBAL SPECIES ACTION PLAN: SUPPORTING IMPLEMENTATION OF THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

DRAFT Version 7.

The Global Species Action Plan (GSAP) supports implementation of the [Post-2020 Global Biodiversity Framework](#) (GBF) by setting out all the actions required to achieve species outcomes in the GBF Mission, Goals, and Targets.

BACKGROUND

Biodiversity is declining across the planet. The [2019 IPBES Global Assessment Report on Biodiversity and Ecosystem Services](#) revealed that vertebrate species populations have declined on average by 68% since 1970, 75% of Earth's land surface has been significantly altered, 66% of the oceans are degraded, and over 85% of the global area of wetlands has already been lost. Around 25% of all species assessed on the IUCN Red List are threatened, suggesting that around 1 million species may already face extinction. The global rate of species extinction is already tens to hundreds of times higher than the average background rate over the past 10 million years, suggesting that we are facing a 'sixth mass extinction' – and the rate will accelerate further without urgent action to address this species emergency through reducing the drivers of biodiversity loss and restoring species' populations and ecosystems.

The impact of this biodiversity crisis has far-reaching consequences for all aspects of human health, food and water security, climate, and economy. Given the crucial role species play in the livelihoods and economies of people all over the world, and in the ecosystem services on which they depend, maintaining healthy populations of species and ensuring that the benefits from them are managed equitably and sustainably is essential to delivery of the Sustainable Development Goals (SDGs).

Fundamental roles of species

The millions of species on land, in freshwater, and in the ocean have evolved over millennia and form the web of life that sustains the planet.

- Species are the living components of ecosystems, individually and collectively securing the conditions for life.
- Species play critical roles in the processes of soil formation, decomposition, water filtration and flow, pollination, pest control, climate regulation, carbon sequestration, and other vital ecosystem services.
- Conservation of wild species, and the ecosystems in which they are critical components, is critical to addressing the climate change crisis and reducing the risks of extreme weather events and emerging zoonoses.
- Species provide the primary source of food, medicine, raw materials and other resources for Indigenous Peoples and Local Communities (IPLCs) and hundreds of millions of other people around the world.
- Direct use of wild species forms the basis of fishing and forestry and other major economic sectors, and the wild relatives of crops and domestic livestock are a repository of irreplaceable genetic material with potential for future adaptation and therefore contribute significantly to food security.
- Species are an essential part of the history, culture, and tradition of every society on Earth and their aesthetic values and spiritual roles provide comfort, inspiration, and cultural well-being.

Threats to species

The primary threats to species are conversion, degradation, and fragmentation of natural habitats; climate change, unsustainable use and trade; unintentional mortality stemming from human

activities; invasive alien species; pollution; and existing and emerging infectious diseases, resulting from an array of underlying drivers. Erosion of genetic diversity is an additional, mainly unquantified threat, especially to very small and highly fragmented populations.

Conservation action

Many species have been saved from extinction or had their status improved, native species and ecosystems have recovered following eradication of invasive alien species from islands, and habitats have been restored and rewilded. Recent decades have seen an impressive array of scientific innovation and technological advances – including in genetics, remote sensing, GIS mapping, camera trapping, satellite tracking, and statistical analyses and modelling that improve our ability to monitor and conserve wild species.

Experience has demonstrated clearly that addressing the threats and drivers of species declines at an early stage to conserve remaining populations and habitat patches and their connectivity is far more efficient and cost-effective than attempting to restore habitats and reintroduce species later, underlining the importance of timely interventions.

There is ample evidence that **conservation action works**. The challenge now is to massively scale up these efforts to eliminate the drivers of species declines, ensure the survival, recovery, and persistence at healthy levels of all species, ensure that any use of species is legal, sustainable, and safe for target and non-target species, and that the benefits from use are equitably shared. Specifically, it is essential to:

- Halt all further human-induced species extinctions
- Significantly reduce all the key threats to species and the underlying drivers of decline
- Develop targeted recovery programmes for all species that require them
- Ensure conservation of all sites important for species and their networks through identification and effective management of all Key Biodiversity Areas, Protected and Conserved Areas¹, and internationally recognized sites (World Heritage Sites, Ramsar Sites, Biosphere Reserves)
- Restore and rewild habitats and ecosystems, including reinforcement and reintroduction of their constituent species
- Ensure ecological connectivity and movement at land- freshwater- and seascape scales
- Assess species' vulnerability and adaptive capacity to climate change to inform scenario-planning and development of adaptation and dynamic management measures
- Ensure that any use of species is sustainable, legal and safe for target and non-target species and is not a driver of overexploitation, nor zoonotic disease spillovers to humans or wildlife, and that the benefits from use are equitably shared
- Improve species conservation research and data management and compilation to inform policy making and implementation at all levels
- Communicate the value of species and the importance of their conservation to all audiences

THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

The aim of the Post-2020 Global Biodiversity Framework (GBF) is to secure the life-support systems of the planet through halting and reversing biodiversity loss by 2030 and fully restoring species and ecosystems by 2050. The overall Vision of the Framework is for a world that by 2050 is “Living in Harmony with Nature”. The GBF is due to be adopted at the 15th meeting of the Conference of the Parties of the Convention on Biological Diversity in 2022².

¹ National Park, Marine Park, Nature Reserve, Wildlife Sanctuary, Indigenous and Community Conserved Areas, Other Area-based Conservation Measures, etc

² This document refers to v 1.0 of the GBF and will be adapted to match any subsequent changes

The GBF is composed of four Goals and 22 Targets to be achieved by 2030. The Goals and Targets are all interlinked and interdependent: they cannot be achieved separately. The GBF is an ambitious framework that can only be delivered through genuinely transformative change³.

THE GLOBAL SPECIES ACTION PLAN

The GSAP has been developed in response to [The Abu Dhabi Call for Global Species Conservation Action](#) by IUCN, its members and key partners, in consultation with the biodiversity-related conventions⁴. The GSAP supports the implementation of the GBF by setting out a comprehensive set of actions needed to achieve successful species outcomes under all the GBF Goals and Targets (see the Actions Table). The GSAP will be presented on an online knowledge platform linked to a toolkit of resources, guidance, and best practices to assist governments and other stakeholders to take actions to conserve and sustainably use wild species effectively.

The GSAP is intended to provide support for implementation of the GBF in collaboration with all the biodiversity-related conventions, other international partners and to unite and galvanize all governments and stakeholders to scale up species conservation action, to increase synergies, and to work in coordinated and cooperative ways. This is a living document with an initial timeline of 2030, in alignment with the GBF.

IUCN, including its Species Survival Commission and both its national specialist groups and the Reverse the Red partnership, along with other Commissions and Members stand ready to provide technical support in collaboration with the biodiversity related conventions to implement the GSAP.

Structure of the GSAP

The GBF goals and targets are all closely interlinked and the GSAP accordingly addresses each of the 22 targets. The GSAP sets out the actions required to achieve species outcomes for each target, together with the rationale for these actions. It also lists open-access tools, resources, training support and technical guidance provided by the biodiversity related conventions, IUCN, NGOs, and other stakeholders. The GSAP does not require any separate reporting, additional to existing CBD and other international environmental agreements.

Implementation

Delivery of the GSAP - and the GBF as a whole – involves measures taken at global, regional, national, and local levels. Establishing effective linkages and coordination between these levels, and maximum synergies between all actors, will be crucial to ensuring smooth transitions from global policy, through to assessment, planning, and effective action on the ground.

National governments and their partners will have a leading role in delivering the GSAP, through their National Biodiversity Strategies and Action Plans (NBSAPs), legislative frameworks, budgetary allocations, and other mechanisms.

Actions at global and regional levels are also needed to formulate global policies and strategies, maintain biodiversity databases, standards, and guidelines, accelerate their use by key actors, and address supranational threats, such as climate change, infectious diseases, pollution, illegal wildlife trade, human-induced mortality in international waters, and harmful subsidies and economic incentives.

³ Defined by the IPBES General Assessment as “fundamental, system-wide reorganization across technological, economic and social factors, including paradigms, goals and values, needed for the conservation and sustainable use of biodiversity, long-term human wellbeing and sustainable development”.

⁴ the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Convention on Conservation of the Conservation of Migratory Species of Wild Animals (CMS), the Ramsar Convention on Wetlands (Ramsar), the International Treaty on Plant Genetic Resources for Food and Agriculture, the World Heritage Convention (WHC), the International Convention for the Regulation of Whaling (ICRWC) also known as the International Whaling Commission (IWC), and the International Plant Protection Convention (IPPC)

The international community should be ready to provide all necessary funding while the species conservation community can provide technical support and share experience and expertise.

The roles of other stakeholder groups include:

- **Inter-Governmental Organizations and biodiversity related conventions (BRCs) and agreements:** Ensure effective implementation of all their processes, resolutions, and decisions relevant to species conservation, and effective, streamlined coordination across all entities.
- **Technical agencies, institutions, and Non-Government Organizations:** contribute their implementation tools, guidance, knowledge products and capacity development to assist governments and other stakeholders in science-based decision-making and implementation to support species
- **Civil society:** recognize the importance of species, and actively support implementation of GSAP actions to conserve of all wild species.
- **Academic and research institutes:** focus on species conservation research to inform policy making and implementation at all levels.
- **Private sector and financial institutions:** Implement and monitor ambitious commitments to address their impacts on species, populations, and habitats throughout production and supply chains. Ensure that financial flows and development project financing contain safeguards that direct such investments and subsidies towards positive impacts on threatened species and important sites and habitats.
- **Donor countries, multilateral donors, and the philanthropic community:** Mobilise and invest resources at the scale needed for science and effective conservation and sustainable use of species and their habitats and seek innovative mechanisms for financing species conservation.
- **Zoos, botanic gardens, aquariums:** scale up commitments to support the conservation of species ex-situ, their return to the wild, and in situ.

Ultimately the GSAP is an action plan for everyone - governments, intergovernmental organisations, the biodiversity-related conventions, international and national NGOs, academic and research institutes, ex-situ institutions (zoos, aquaria, botanic gardens), commercial and business sectors, funding agencies, the philanthropic community, and civil society as a whole: everyone has a part to play in addressing the species emergency and ensuring we pass on a rich natural heritage to future generations.

The GSAP Table of Actions below includes the 22 GBF Targets and a species rationale for each one, the actions needed to achieve species outcomes, and an initial list of guidelines, tools and resources to assist governments and other stakeholders to prioritise and implement these actions.

The list of tools and resources will be supplemented to ensure it is comprehensive, then incorporated into an interactive, online Species Conservation Knowledge, Information Learning, Leverage and Sharing Online Knowledge (SKILLS) platform.

GSAP TABLE OF ACTIONS

GBF 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.

GSAP RATIONALE: Spatial planning and legislative approaches at landscape, freshwater-scape and seascape scales, are needed to maintain the integrity, functionality and connectivity of natural ecosystems and thus conserve the species that compose them. Some critical ecosystems, such as coral reefs, tropical forests, peatlands, freshwater, and coastal wetlands, are under particular pressure.

Action	Actors (to be added)	Tools and resources (more inputs to be added)
1.1. Integrate species data into spatial planning at landscape, freshwater-scape, and seascape		
1.1.1. Map and include in spatial plans representative retention targets for all ecosystem types.	Government agencies	UNEP Mapping Biodiversity Priorities IUCN WCC Resolution on Spatial Planning IUCN Red List of Threatened Species IUCN Red List of Ecosystems
1.1.2. Identify, map, and set retention targets for species of conservation importance (threatened, restricted range, and socio-economically important species).	IUCN NGOs	National Red Lists International Finance Corporation Performance Standard 6
1.1.3. Evaluate how well ecosystem and species targets are already protected, and prioritise areas for meeting the remaining targets in the most efficient configuration favouring sites that remain in good ecological condition.	IWC Research and science institutions	Technical guidelines for producing Spatial Biodiversity Plans in South Africa. IWC Cetacean population status IUCN Global Ecosystem Typology 2.0
1.1.4. Incorporate species and ecosystem priorities in spatial planning between all government and business sectors.	CMS and its Instruments AEWA	IWC Sanctuaries: management plans, scientific programs. IWC science and stewardship on ecosystem management, ecosystem function, and threats (underwater noise, debris and other pollution, climate change) IWC SOCER reports
1.1.5. Include species considerations in land and sea use guidelines for use in national development zoning schemes.		Species Threat Abatement and Restoration (STAR) Metric Spatial datasets (Protected Planet , KBA database) Essential Biodiversity Variables (EBV) Data Portal
1.1.6. Include key species considerations in Environmental and Social Impact Assessments (ESIAs) for infrastructure development projects		
1.1.7. Apply the mitigation hierarchy to all infrastructure developments to reduce their impact on habitats and species of conservation importance.		CMS Atlases (African Eurasian Bird Migration atlas and its connectivity module ; TurtleNet) Global Initiative on Ungulate Migration The AEWA Critical Sites Network (CSN) Tool Important Shark and Ray Areas (ISRA) Important Marine Mammals Areas Atlas Migratory Connectivity in the Ocean (MiCO) Trans-European Swimways Network * Review of the state of the principal habitats of all bird taxa covered by the CMS avian instruments in the African-Eurasian

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		flyways within their geographical range and action plans for them (tbd)
1.2. Ensure connectivity and movement between species' populations		
1.2.1. Identify, map, and protect critical sites and systems of areas and migratory pathways for species	Government agencies CMS and its Instruments IUCN NGOs	<p>IUCN Guidelines for Conserving Connectivity through Ecological Networks and Corridors UNEP-WCMC and World Commission on Protected Areas Database of Ecological Corridors IUCN Importance Marine Mammals Areas (IMMAs) Global Initiative on Ungulate Migrations IWC Sanctuaries and Conservation Management Plans (CMPs) Global Initiative on Ungulate Migration CMS Atlases and tools under 1.1.1.-1.1.3. Open-source animal tracking databases International Finance Corporation Performance Standard 6 CMS CAMI Infrastructure Atlas AEWA Strategic Plan 2019-2027, Objective 3 Soaring Bird Sensitivity Mapping Tool for wind energy and other sectors CMS-AEWA-Raptors MOU Guidelines on How to Avoid or Mitigate Impact of Electricity Power Grids on Migratory Birds in the African-Eurasian Region:</p> <p>CMS-AEWA Renewable energy technologies and migratory species: Guidelines for sustainable deployment Other CMS Atlases and tools under 1.1.1.-1.1.3. AEWA Guidelines on how to avoid, minimize or mitigate impact of infrastructural developments and related disturbance affecting waterbirds</p>
1.2.2. Participate in CMS instruments for migratory species and integrate their recommendations into landscape spatial planning	Governments CMS and its Instruments NGOs	<p>CMS Instruments and initiatives e.g. legally-binding agreements; memoranda of understanding; special initiatives; action plans , etc and tools listed under 1.1.1 -1.1.3, 1.2.1 and 1.2.2. CMS Instruments (Agreement on the Conservation of African-Eurasian Migratory Waterbirds; Central Asian Mammals Initiative, Sahelo-Saharan Megafauna Concerted Action, etc IWC science and stewardship of highly migratory cetaceans, through initiatives such as CPM, Task Teams, Bycatch Mitigation Initiative, Southern Ocean Research Partnership (SORP).</p>

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		Regional IWC CMPs and Task Teams for cetaceans under IWC
1.2.3. Enhance transboundary cooperation on conservation of species' populations that cross international borders	Governments CMS and its Instruments NGOs IUCN Regional Offices IUCN Connectivity SG IUCN Transboundary SG IWC	UN General Assembly Resolution 75/271 "Nature knows no borders: transboundary cooperation a key factor for biodiversity conservation, restoration and sustainable use" WWF Transboundary Conservation Landscapes Guide UN General Assembly Resolution on transboundary cooperation for biodiversity conservation IWC CMP, Task Teams and SORP. IUCN WCPA Connectivity Guidelines CMS Instruments and initiatives under 1.2.3. and CMS Atlases and tools under 1.1.1.-1.1.3. UNCCD Connectivity Guidance for UN Decade on Ecosystem Restoration (forthcoming) IUCN WCPA Transboundary conservation; a systematic and integrated approach IUCN WCPA Diagnostic tool for transboundary conservation planners
<p>GSAP 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.</p> <p>GSAP RATIONALE: Restoring degraded natural ecosystems increases the area of habitat for their constituent species and enhances connectivity</p>		
Action	Actors (to be added)	Tools and resources
2.1. Include all constituent species in ecosystem restoration and rewilding initiatives		
2.1.1. Informing and implementing restoration interventions of ecosystems and habitats at a landscape/seascape level with the greatest potential to benefit a wide range of species	Government agencies NGOs	Targets in the UN Decade of Ecosystem Restoration 2021-2030 Targets in the UN Decade of Ocean Science for Sustainable Development 2021-2030 International Principles & Standards for the Practice of Ecological Restoration Biodiversity Guidelines for Forest Restoration Guidelines for conserving connectivity through ecological networks and corridors IWC Conservation Management Plans and IWC Ecosystem Functioning research STAR UNCCD/CMS/CLLC Working paper on Connectivity and Restoration (to be published shortly)
2.1.2. Coordinate restoration programmes across national boundaries where appropriate		
2.1.3. Ensure restoration programmes are biodiversity positive (e.g. avoid the planting of exotic tree species)		

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		Review of the state of the principal habitats of all bird taxa covered by the CMS avian instruments in the African-Eurasian flyways within their geographical range and action plans for them
<p>GBF 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.</p> <p>GSAP RATIONALE: Networks of well-governed and effectively managed protected and conserved areas are crucial in safeguarding species and their habitats. Focusing expansion of protected and conserved areas on Key Biodiversity Areas will greatly increase their impact and benefits for species.</p>		
Action	Actors (to be added)	Tools and resources
3.1. Identify all sites important for species conservation		
3.1.1. Identity Key Biodiversity Areas comprehensively in each country and in marine areas beyond national jurisdiction	National KBA committees	Guidance on the role of KBA National Coordination Groups and how to establish them
3.1.2. Ensure that all KBAs and other sites of importance for species conservation are covered by protected or conserved areas	KBA Partnership Government agencies NGOs Reverse the Red partnership IUCN SSC National Species Specialist Groups	A Global Standard for the Identification of Key Biodiversity Areas Guidelines for using A global standard for the identification of Key Biodiversity Areas World Database on KBAs IUCN IMMAs IWC Sanctuaries, SORP, , contributing to creation of new sanctuaries and strengthening existing sanctuaries IPA AEWA Critical Sites Network (CSN) Tool: Important Shark and Ray Areas (ISRA) Important Marine Mammals Areas Atlas AEWA Strategic Plan 2019-2027, Objective 3
3.1.3. Maintain and update a comprehensive global register of all sites determined as being of importance for species (KBA, PCA, IPA, AZE, etc).	WCMC KBA Secretariat AZE Secretariat	Protected Planet World Database of KBAs List and map of AZE sites
3.2. Ensure that protected and conserved area networks are representative of all natural ecosystems and well connected		
3.2.1. Analyse gaps in existing protected and conserved area networks for species	Governments WCPA	Durban Action Plan IUCN Green List Sustainability Standard
3.2.2. Focus expansion of protected and conserved areas on sites of high importance for species	KBA Partnership NGOs	Guidelines for conserving connectivity through ecological networks and corridors

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<p>3.2.3. Support transboundary conservation areas where species' populations cross national borders</p>	<p>Reverse the Red partnership IUCN SSC National Species Specialist Groups</p>	<p>IUCN Resolution WCC-2020-Res-073 "Ecological connectivity conservation in the post-2020 global biodiversity framework: from local to international levels": IWC CMPs. IUCN IMMAs CMS Instruments and initiatives under 1.2.3. and CMS Atlases and tools under 1.1.1.-1.1.3.</p> <p>AEWA International Review of the networks of sites used by each population, including reviews of the protection status of each site as well as of the management measures taken in each case; one of the seven mandatory reviews under article 7.4 of AEWA's Action Plan (Annex 3) to be produced at intervals of six years; preliminary edition available at this link: https://www.unep-aewa.org/sites/default/files/document/mop5_15_preliminary_site_network_report_0.pdf AEWA Strategic Plan 2019-2027, Objective 3</p>
<p>3.3. Maximise the value of internationally recognised sites (Biosphere Reserves , Ramsar Sites, World Heritage Sites) for species conservation</p>		
<p>3.3.1. Inscribe all sites meeting the species criteria are recognised as Wetlands of International Importance (Ramsar) Integrate Ramsar sites in wetland landscape conservation</p>	<p>Ramsar Secretariat</p>	<p>Ramsar criteria</p>
<p>3.3.2. Inscribe all PAs that meet criterion X for species outstanding universal value on the World Heritage List and review species data in mixed and cultural sites</p>	<p>World Heritage Committee</p>	<p>WH Criteria</p>
<p>3.3.3. Inscribe sites harbouring threatened species and cultural diversity in the UNESCO Man and Biosphere programme</p>	<p>UNESCO MAB Programme</p>	<p>UNESCO MAB Criteria</p>
<p>3.3.4. Develop synergies in managing species and reporting in sites with overlapping international designations</p>	<p>Ramsar, WHS, MAB secretariats</p>	<p>Ramsar, WHS, MAB tools CMS Instruments and initiatives under 1.2.3. and CMS Atlases and tools under 1.1.1.-1.1.3.</p>
<p>3.4. Manage effectively and equitably all protected and conserved areas and other sites important for species</p>		
<p>3.4.1. Include key species requirements in site management plans</p>	<p>National management agencies NGOs Research institutions</p>	<p>The CBD Programme of Work on Protected Areas IUCN Green List of Protected and Conserved Areas Standard Recognising and reporting other effective area-based conservation measures CMS Instruments and initiatives under 1.2.3. and CMS Atlases and tools under 1.1.1.-1.1.3.</p>
<p>3.4.2. Train and equip management staff (including government, community, and indigenous rangers) to professional standards</p>		<p>WCPA PA Management Competence Standards IRF Ranger Code of Conduct</p>

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		<p>WCPA PA Management Competence Standards Universal Ranger Support Alliance Action Plan https://www.ursa4rangers.org/ursa4rangers-resources/ SMART monitoring</p> <p>IWC Task Teams and CMPs, with local monitors on cetaceans. The IWC entanglement response initiative.</p>
3.4.3. Involve Indigenous People and Local Communities (IPLC) in site management planning and decision-making on an equitable basis and provide adequate resourcing, capacity, and training as appropriate. - Co-develop site management plans with IPLC	<p>IPLC ILK holders Regional organizations Fishers' Associations,</p>	<p>IUCN/other resources</p>
3.4.4. Monitor success of protected and conserved areas in conserving species		<p>IUCN Green List of Protected Areas Standard Conservation Assured Management Effectiveness Tracking Tool (METT4) Integrated Management Effectiveness Tool (IMET)</p>
<p>GBF 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.</p> <p><i>GSAP RATIONALE: Targeted actions are essential to prevent extinctions, reverse declines and enable recovery of many species, in addition to reversing the threats and drivers of decline. Without such actions, extinction risk for over one third of threatened species would not be reduced sufficiently, even if all the other GBF targets were fully implemented. Species-specific actions include habitat management, reintroduction and reinforcement, captive breeding in zoos and aquaria or propagation in botanic gardens, supplementary feeding, provision of breeding sites, and others. Conserving the genetic diversity of wild species is also important for their long-term persistence. Conflicts between humans and wildlife are increasing, and threaten not only species, but also sustainable development, food security, and human life, with impacts felt most often by the most vulnerable and marginalised in society. Integrated responses are needed at large scales to minimize and manage human-wildlife conflict, promoting coexistence between wildlife and people.</i></p>		
Action	Actors (to be added)	Tools and resources
<p>4.1. Track the conservation status of all species and identify those needing targeted recovery actions</p>		
4.1.1. Assess the status, population trend, threats, and conservation potential of all species	<p>IUCN Red List Partners SSC Taxonomic Specialist Groups and Red List Authorities WWF IWC MEAs CMS and its instruments AEWA Reverse the Red partnership IUCN SSC National Species Specialist Groups</p>	<p>IUCN Red List The IUCN Green Status of Species Living Planet Index IWC Population (Abundance) estimates of cetaceans and Status of the Stocks initiative IWC Extinctions Initiative STAR CMS Conservation Status of Migratory Species Report (to be published in 2023) AEWA Conservation Status Report (regular report submitted to each session of the Meeting of the Parties; eight editions published to date; for the latest edition please visit this link:</p>

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		https://www.unep-aewa.org/sites/default/files/document/aewa_mop8_19_csr8.pdf
4.1.2. Develop National Red Lists	Governments, IUCN Reverse the Red partnership IUCN SSC National Species Specialist Groups	IUCN Guidelines National Red List Working Group
4.1.4. Identify species that require targeted action	IUCN, MEAs, CMS and its instruments AEWA NGOs, governments, Research institutes Reverse the Red partnership IUCN SSC National Species Specialist Groups	Prioritisation tools IUCN Red List of Threatened Species IWC Population (Abundance) estimates of cetaceans. IWC Extinctions Initiative. CMS and its instruments AEWA Technical Committee's triennial prioritisation of waterbird populations for species action and management planning
4.2. Develop and implement recovery plans (single species, multi-species, site-based, or threat-based) for all species that require them		
4.2.1. Integrate existing global strategies for whole taxonomic groups into national and regional planning	Governments IWC NGOs	e.g. Global Strategy for Plant Conservation, Amphibian Conservation Action Plan
4.2.2. Increase the capacity of national governments, NGOs and CSOs to conduct species recovery planning at global, regional, and national levels	IUCN SSC CPSG IUCN SSC National Species Specialist Groups	IUCN Species Planning Guidelines (IUCN 2017) IUCN SSC CPSG Species Planning Principles and Steps Species Conservation Planning Online Training Course (Training Conservation Planning Specialist Group (cpsg.org)) A Facilitators Guide to Species Conservation Planning.pdf (cpsg.org) Webinar Series Conservation Planning Specialist Group (cpsg.org) The PHVA Workshop Process Conservation Planning Specialist Group (cpsg.org) Species Conservation Planning Tools Library Conservation Planning Specialist Group (cpsg.org) IWC Conservation Management Plans and Task Teams AEWA International Single and Multi-Species Action Planning Format and Guidelines: https://www.unep-aewa.org/sites/default/files/document/aewa_mop8_23_species_action_plan_format.pdf AEWA International Single and Multi-Species Management Planning Format and Guidelines: https://www.unep-aewa.org/sites/default/files/document/aewa_mop8_24_species_management_plan_format.pdf
4.2.2. Ensure all recovery plans specify a lead and an implementation coordinating mechanism		

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		<p>AEWA International Species Working and Expert Groups (set up for coordinating the implementation of international single and multi-species action and management plans): https://www.unep-awa.org/en/workinggroup/awa-international-species-working-groups-iswg & https://www.unep-awa.org/en/workinggroup/awa-international-species-expert-groups-iseg CMS and its instruments</p>
4.2.3. Use the 'One Plan' approach for species with significant ex-situ populations		<p>'One Plan' approach</p>
4.2.4. Identify species or groups of species with similar planning needs		<p>Assess to Plan Overview - YouTube CMS and its instruments AEWAs Technical Committee's triennial prioritisation of waterbird populations for species action and management planning</p>
4.3. Enact measures to prevent extinctions and recover threatened species		
4.3.1. Implement species recovery plans fully and effectively	<p>Governments NGOs MEAs IUCN Reverse the Red partnership IUCN SSC National Species Specialist Groups</p>	<p>Species Conservation Planning Tools Library Conservation Planning Specialist Group (cpsg.org) IUCN Guidelines (2013) https://www.iucn.org/resources/publication/guidelines-reintroductions-and-other-conservation-translocations IUCN Reintroduction Case Studies https://portals.iucn.org/library/node/49298 IWC CMPs CMS and its instruments AEWAs International Single and Multi-Species Action Plans: https://www.unep-awa.org/publications/technical-publications?field_publication_type_tid=1417 AEWA Guidelines for the Translocation of Waterbirds for Conservation Purposes: Complementing the IUCN Guidelines: https://www.unep-awa.org/sites/default/files/publication/ts%2049%20translocation_guidelines.pdf</p>
4.3.2. Include national work plans for species in NBSAPs		
4.3.3. Provide full technical and financial support to those responsible for implementation		
4.3.4. Conduct all species reintroductions and other conservation translocations according to IUCN guidelines and other specific guidelines building on the IUCN ones		
4.3.5. Incorporate assisted colonization of species most vulnerable to impacts of climate change		
4.3.6. Apply laws and regulations on species conservation effectively And strengthen or update legal frameworks where relevant	<p>Governments CMS and its instruments AEWAs World Commission on Environmental Law Centre for Environmental Law IUCN-FAO-UNEP Ecolex</p>	<p>https://www.iucn.org/our-union/commissions/world-commission-environmental-law https://www.ecolex.org/ CIEL https://www.ciel.org/ CMS legal guidance on various (tbd) CMS and its instruments</p>

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		<p>AEWA's triennial update of Annex 3, Table 1 AEWA International Review of Hunting and Trade Legislation; AEWA Guidelines on National Legislation AEWA Guidance on Measures in National Legislation for Different Populations of the Same Species, Particularly with Respect to Hunting and Trade AEWA Guidance on Addressing the Risk of Accidental Shooting of Look-alike Species of Waterbirds in the Agreement Area</p>
4.3.7. Support transboundary conservation programmes for species' populations that cross national borders	<p>Governments, Regional government associations, CMS and its instruments AWEA</p>	<p>CMS Agreements (e.g., ACAP, ACCOBAMS etc)</p> <p>WWF report "Transboundary Conservation Landscapes" https://wwfeu.awsassets.panda.org/downloads/transboundary_conservation_report_web.pdf IWC CMPs CMS Energy Task Force CMS tools under 1.2.2. AEWA Resolution 8.15: https://www.unep-aewa.org/sites/default/files/document/aewa_res8_15_addressing_causes_of_waterbird_mortality_en.pdf</p>
4.3.8. Reduce incidental mortality of species (ship strikes, wind turbines, collision and electrocution on electricity wires, road kill)	<p>Governments, IWC, IUCN NGOs</p>	<p>IWC Bycatch Mitigation Initiative pilot projects IWC coordinates work on marine debris, bycatch and entanglement, underwater noise and other pollutants with other IGOs/RFMOs IWC science and stewardship of ship strikes, IWC Ship strike database, and collaboration with IMO on vessel speed and routing. IUCN guidelines: Mitigating biodiversity impacts associated with solar and wind energy development</p>
4.3.9. Employ One Health approaches to manage the human-livestock-wildlife disease interface regarding zoonotic emerging diseases that impact threatened species	<p>IUCN Wildlife Health Specialist Group World Organisation for Animal Health (WOAH, formerly OIE) and the Quadripartite partners (WOAH, UNEP, FAO and WHO) Governments</p>	<p>IUCN SSC Wildlife Disease Risk Analysis Guidelines and associated DRA Manual</p> <p>IUCN SSC DRA On-line training Recommendations for Prevention, Detection, Response and Recovery from Disease Risks in and around Protected and Conserved Areas</p>
4.4. Maintain or establish coordinated ex-situ breeding or propagation programmes for all species that require them		
4.4.1. Evaluate the status of ex situ populations and reinforce or establish where appropriate	<p>WAZA, BGCI</p>	<p>IUCN Guidelines on Establishing Ex-situ Populations</p>

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4.4.2. Provide support to range countries in collection planning and breeding programmes	Regional zoo associations, Botanic Gardens, Zoos, and Aquaria IUCN Governments, NGOs	IUCN Guidelines on the Use of Ex Situ Management for Species Conservation , version 2.0, 2014 (also available in Spanish , Japanese and Portuguese). Amphibian Ark Ex situ Assessment tool and process IUCN resolution 079: Linking in situ and ex situ efforts to save threatened species ‘One Plan’ approach Species360 https://www.species360.org/
4.4.3. Follow Red List guidance on including ex situ populations in assessments		
4.5. Minimise loss of genetic diversity across all threatened species and retain at least 95% gene diversity in species where it is already depleted		
4.5.1. Evaluate the loss in genetic diversity in populations of threatened species through genetic and genomic tools or proxy assessments	Conservation Genetics Specialist Group Research institutes IUCN SSC National Species Specialist Groups	Safari genetic scorecard IWC Scientific Committee work on cetacean DNA.
4.5.2. Develop standardised genetic diversity indicators and reporting mechanisms for policy makers and conservation managers		
4.5.3. Use genetic and genomic analyses to inform integrated metapopulation management of ex situ and in situ populations and their role in reintroductions and reinforcement		
4.5.4. Include genetic risks in species Red List assessments		
4.6. Reduce and manage human-wildlife conflict and its drivers through a holistic, cross-sectoral approach		
4.6.1. Develop guidance, strategies, and policies to prevent and manage human-wildlife conflict (HWC) globally and nationally	IUCN HWC Specialist Group Governments NGOs IUCN, Governments, NGOs Governments Business sector IUCN SSC National Species Specialist Groups IWC	WCC2020-Res101: Addressing human-wildlife conflict: fostering a safe and beneficial coexistence of people and wildlife IUCN SSC Guidelines on Human-Wildlife Conflict & Coexistence IUCN Position Statement on HWC IUCN training courses on HWC IWC Entanglement response initiative, bycatch mitigation initiative, CMPs and the work done on ship strikes, marine debris, other pollutants and anthropogenic underwater noise.
4.6.2. Increase national and local capacity to prevent and manage HWC		
4.6.3. Integrate standards of HWC prevention, management, and coexistence into industry certification schemes		
4.7. Determine factors governing species conservation success		
4.7.1. Analyse reasons for success and failure of species conservation measures	Governments AEWA Implementing agencies IUCN, NGOs IUCN SSC National Species Specialist Groups	IUCN Species Conservation Planning Specialist Group (CPSG) PANORAMA Species Conservation Solutions AEWA International Review the Stage of Preparation and Implementation of Species Action Plans
4.7.2. Promote all examples of successful species conservation action and lessons learned		
GBF Target 5. Ensure that the harvesting, trade and use of wild species is sustainable, legal, and safe for human health.		

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GSAP RATIONALE: Overexploitation has depleted the populations of many species and caused local extinctions. Illegal wildlife trade is a multibillion-dollar industry and a threat not only to biodiversity conservation, but also to public health. Ensuring that legal use is sustainable and combatting illegal wildlife trade are crucial to the persistence of species and the resources on which millions of people depend for food, medicine, building, fuel, and other purposes. The negative public health and economic impacts of zoonotic spill-over within the wildlife trade further support enforcement of existing laws and creation of new ones as needed.		
Action	Actors (to be added)	Tools and resources
5.1. Ensure that use of wild species is sustainable		
5.1.1. Assess biologically sustainable levels of use of each species based on sound science	Research and academic institutions Government agencies, NGOs and CSOs Commercial sector CITES, TRAFFIC IPLC IUCN Sustainable Use Specialist Group IUCN SSC National Species Specialist Groups	IWC Scientific Sub-Committee on Small Cetaceans addresses impact of direct consumption of small cetaceans IWC Aboriginal Subsistence Whaling Management Programme (ASWMP) SULI Sustainable Use Database (in development) ETIS (elephants) Wild Meat Interventions Database AEWA's Rapid Assessment of the Sustainability of Waterbird Harvest (in development) AEWA International Species Action and Management Plans with Adaptive Harvest Management Programmes: https://www.unep-aewa.org/publications/technical-publications?field_publication_type_tid=1417 AEWA European Goose Management Platform: https://egmp.aewa.info/ AEWA Guidance on Methods and Tools for Waterbird Harvest Data Collection (in development)
5.1.2. Provide technical support for sustainable use of species		
5.1.3. Co-develop harvest quotas equitably and transparently with Indigenous Peoples and Local Communities		
5.1.4. Develop effective systems to monitor harvest, trade, and sustainability		
5.1.5. Monitor success of sustainable use programmes and interventions		
5.2. Reduce wild meat consumption to sustainable levels		
5.2.1. Develop demand reduction programmes in urban areas	Research and academic institutions Government agencies, NGOs and CSOs CITES, TRAFFIC IUCN Sustainable Use Specialist Group MEAs AEWA	Wild Meat Database, Wild Meat Library, Wild Meat Toolkit CMS Impacts of Taking, Trade and Consumption of Terrestrial Migratory Species for Wild Meat Widespread Use of Migratory Megafauna for Aquatic Wild Meat in the Tropics and Subtropics The harvest of CMS appendix i-listed sharks and rays as aquatic wild meat
5.2.2. Provide alternative protein sources to rural communities		
5.3. Ensure that sustainable use of species is legal		
5.3.1. Develop or revise appropriate legal frameworks	Governments CITES Secretariat CMS and its instruments AEWA Regional Wildlife Enforcement Networks	ECOLEX Zero Poaching Framework FAO's tools and resources on Illegal, Unreported and Unregulated (IUU) fishing Text and List of Species of CMS and its instruments CMS Review Mechanism and National Legislation Programme
5.3.2. Include customary sustainable use (CSU) fully within legal use		
5.3.3. Focus enforcement efforts on commercial poaching and trade		

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	INTERPOL Universal Ranger Support Alliance	AEWA legal text and annexes: https://www.unep-aewa.org/en/documents/agreement-text AEWA Strategic Plan 2019-2027, Objective 2: https://www.unep-aewa.org/sites/default/files/basic_page_documents/aewa_strategic_plan_2019-2027_final.pdf AEWA Implementation Review Process: https://www.unep-aewa.org/en/activities/irp CMS work on illegal Killing, Taking and Trade of Migratory Birds AEWA Guidance on Measures in National Legislation for Different Populations of the Same Species, Particularly with Respect to Hunting and Trade
5.3.4. Encourage countries to become signatories to CMS and its instruments, as appropriate		
5.4. Reduce illegal trade and trafficking of species and products		
5.4.1. Comply fully with CITES regulations, non-detriment findings, and reporting on international trade	Governments CITES Secretariat	CITES 'Non-detriment findings' CITES Trade database CITES Wildlife TradeView Species+ and the CITES Checklist RAFFIC online Learning Centre https://www.traffic.org/learning-centre/ Zero Poaching Framework
5.4.2. Encourage all countries to become signatories to CITES	Regional Wildlife Enforcement Networks INTERPOL	
5.4.3. Coordinate and scale-up actions by enforcement agencies, customs, and legal systems to combat poaching and IWT	Universal Ranger Support Alliance	
5.4.4. Use behavioural change interventions to reduce demand for illegal products from threatened species	IWC	TRAFFIC's Red Stream Theory of Change
5.4.5. Address Illegal, Unreported, Unregulated Practices (IUUP) in fisheries		FAO's tools and resources on Illegal, Unreported and Unregulated (IUU) fishing
5.4.6 Address in-country illegal trade, including of illegally obtained animals and plants and readily recognisable parts or derivatives of such.	Governments AEWA	AEWA legal text and annexes AEWA Guidelines on National Legislation: https://www.unep-aewa.org/sites/default/files/document/mop6_35_draft_legislation_guidelines.pdf
5.5. Reduce the impact of bycatch on non-target species		
5.5.1. Drive innovation to fishing gear modifications that reduce or eliminate bycatch	Governments CITES Secretariat	FAO technical Guidelines for Responsible Fisheries Fishing operations. Guidelines to prevent and reduce bycatch of marine mammals in capture fisheries Global Ghost Gear Initiative Guidelines to prevent and reduce bycatch of marine mammals in capture fisheries
5.5.2. Control the discarding of fishing nets and other gear	Regional Wildlife Enforcement Networks INTERPOL	
5.5.3. Work with fisher communities and organizations to increase capacity and experience in the safe handling, monitoring, and release of bycatch		

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5.5.4. Adopt legislation on the most effective gear modifications and handling protocols	Universal Ranger Support Alliance IWC	Guidelines for the Safe and Humane Handling and Release of bycatch small cetaceans in fishing gear IWC bycatch mitigation initiative ASCOBANS Cost-benefit Analysis for Mitigation Measures in Fisheries with High Bycatch ASCOBANS Monitoring Cetacean Bycatch: An Analysis of Different Methods Aboard Commercial
5.6. Reduce risks for human health from handling, trading, and consuming wild species and their products		
5.6.1. Employ One Health approaches in all sectors involved in handling and managing wild species	Quadripartite partners (WOAH, UNEP, FAO and WHO) IUCN SSC Wildlife Health Specialist Group	One Health and Wildlife Interim Guidance on Reducing public health risks associated with the sale of live wild animals of mammalian species in traditional food markets PANORAMA Solutions – Species Conservation community IUCN-OIE Wildlife Disease Risk Analysis Guidelines Manual of procedures for wildlife disease risk analysis IUCN SSC DRA online training courses IWC Strandings Initiative CMS wildlife diseases and migratory species review (tbd)
5.6.2. Create a central database for data on diseases originating from the global wildlife trade.		
5.6.3. Ensure IUCN SSC Disease Risk Analysis (DRA) Guidelines and associated manual and training materials are kept up to date		
5.6.4. Provide DRA expertise and training where needed		
<p>GBF 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.</p> <p><i>GSAP RATIONALE: Invasive alien species are a major threat to native species, especially on islands and in freshwater systems. Eradication or control of such species can result in rapid recovery of native species and habitats, and technological and methodological advances mean that such interventions are feasible at increasingly large scales.</i></p>		
Action	Actors (to be added)	Tools and resources (more inputs to be added)
6.1. Enact strategies, policies, and legislation to reduce impacts of invasive alien species on native species		
6.1.1. Develop National Invasive Species Strategies and Action Plans (NISSAP)	Governments AEWA IUCN Invasive Species Specialist Group IUCN SSC National Species Specialist Groups	IUCN Environmental Impact Classification of Alien Taxa (EICAT) AEWA legal text and annexes AEWA Guidelines on Avoidance of Introductions of Non-native Waterbird Species: https://www.unep-awea.org/sites/default/files/publication/ts12_guidelines_non-native-species_complete_0.pdf AEWA International Review the Status of Introduced Non-native Waterbird Species and Hybrids Thereof; one of the seven mandatory reviews under article 7.4 of AEWA's Action Plan (Annex 3) to be produced at intervals of six years; latest edition available at this link: https://www.unep-
6.1.2. Enact legislation and policies to control and manage IAS, pathways of introduction, and banning the import, possession, or breeding of priority IAS		
6.1.3. Produce technical guidance on development of legislation, policy and strategies addressing IAS		
6.1.4. Identify IAS that have the most harmful impacts on species And sites that are the most vulnerable to IAS.		
6.1.5. Develop private sector standards and guidance for the control of IAS, and management of their impacts		

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		aewa.org/sites/default/files/document/mop6_15_report_non_natives.pdf
6.1.6. Maintain and update the Global Invasive Species Database	IUCN Invasive Species Specialist Group	IUCN Global Invasive Species Database Global Register of Introduced and Invasive Species (GRIIS)
6.2. Control pathways of introduction of IAS, particularly the most harmful species		
6.2.1. Identify and prioritise pathways of introduction	Governments IUCN Invasive Species Specialist Group	ISSG developed codes of conduct through Bern Convention IUCN Invasive Species Specialist Group's tools and resources
6.2.2. Include IAS pathway identification and control into NISSAPs	IUCN Invasive Species Specialist Group	
6.3. Eradicate, or control, IAS that have the most harmful impacts upon wild species		
6.3.1. Develop and implement eradication or and control plans for priority IAS and priority sites	Governments IUCN Invasive Species Specialist Group	ISSG developed codes of conduct through Bern Convention IUCN Invasive Species Specialist Group's tools and resources AEWA International Species Action and Management Plans that envisage control of alien invasive species: https://www.unep-aewa.org/publications/technical-publications?field_publication_type_tid=1417 AEWA Guidelines on Avoidance of Introductions of Non-native Waterbird Species: https://www.unep-aewa.org/sites/default/files/publication/ts12_guidelines_non-native-species_complete_0.pdf
6.3.2. Produce guidance and best practices on the eradication and control of IAS		
6.4. Build capacity, stakeholder engagement and public awareness of the impacts of invasive alien species		
6.4.1. Build national capacity for biosecurity, monitoring and research, rapid eradication, management, and restoration	Governments IUCN Invasive Species Specialist Group	IUCN SSC Species Conservation Competence Standards
6.4.2. Raise awareness among key stakeholder groups of IAS, their impacts, and actions that can be taken to control them		ISSG developed codes of conduct through Bern Convention IUCN Invasive Species Specialist Group's tools and resources
6.4.3. Involve local communities in the planning and implementation of IAS management		
<p>GBF 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.</p> <p><i>GSAP RATIONALE: Pollution from all sources, including fossil fuel burning, industrial discharges, plastic waste, biocides, excess nutrients, sewage, agricultural run-off, and new emerging pollutants, has significant direct and indirect effects on species. The effects of plastic pollution and bio-accumulation throughout the marine realm are particularly marked. Noise and light pollution have further negative effects. Minimizing production and use, preventing release, and mitigating the impacts of pollutants are all needed.</i></p>		
Action	Actors (to be added)	Tools and resources (more inputs to be added)
7.1. Minimise the negative effects of pollution on species		
7.1.1. Implement guidelines and decisions of the Basel, Rotterdam, and Stockholm conventions to protect species from hazardous chemicals and wastes	Governments Agriculture sector MEAs	IWC Pollution 2020 IWC Marine Debris programme. IWC work on Anthropogenic underwater noise

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7.1.2. Support a new global treaty on plastic pollution to minimize effects on species	NGOs	IWC Strandings Initiative 7.1.2 CMS Risk Assessment of Plastic Pollution to Migratory Species in the Mekong and Gange River Basins For 7.1.4 Guidelines to Prevent the Risk of Poisoning to Migratory Birds and other materials: www.cms.int/en/workinggroup/preventing-poisoning-migratory-birds For 7.1.7: CMS Family Guidelines on Environmental Impact Assessments for Marine Noise-generating Activities CMS Light Pollution Guidelines
7.1.3. Limit impacts on species from agricultural runoff and biocides		
7.1.4. Increase the use of integrated pest management, and reduce indiscriminate use of pesticides, antibiotics, fertilizers		
7.1.5. Minimise the loss of hydrocarbon-based fuel sources from marine vessels (e.g. bilge water discharge, fuel tank washing) that threaten species		
7.1.7 Undertake measures to reduce the most severe impacts of acoustic and light pollution on threatened species		
7.1.8. Ensure chemical and veterinary medicine licensing procedures take into account potential or demonstrated impacts on non-target species and seek safer alternatives in line with a One Health approach		
7.1.9 Phase out the use of lead ammunition for hunting and sport shooting	CMS AEWA	Guidelines to Prevent the Risk of Poisoning to Migratory Birds and other materials: www.cms.int/en/workinggroup/preventing-poisoning-migratory-birds AEWA legal text and annexes
<p>GBF 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.</p> <p><i>GSAP RATIONALE The magnitude of climate change has widespread and increasingly negative impacts on wild species, affecting their morphology, genetics, behaviour, abundance, distribution, extinction risk, and community interactions. Species in ecosystems such as coral reefs, high mountains, and at high latitudes are particularly at risk. It is critical to restrict average global temperature rises to 1.5 degrees, and interventions are needed now to help species adapt to the challenges they are already facing.</i></p>		
Action	Actors (to be added)	Tools and resources (more inputs to be added)
8.1. Minimise the impacts of climate change on species through mitigation and adaptation		
8.1.1. Use IPCC global climate change scenarios to model threats to species and identify possible range shifts	IPCC MEAs CMS and its instruments AEWA	IPCC scenarios IWC science and stewardship of climate change impacts on cetaceans IUCN Climate Change Specialist Group
8.1.2. Conduct climate change vulnerability and adaptive capacity assessments for all threatened species	Government agencies	

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8.1.3. Identify potential species refugia and climate corridors inside and outside indigenous range and secure them through PCAs (see also Target 3)	Research institutions IUCN, NGOs	IUCN Guidelines for Assessing Species' Vulnerability to Climate Change
8.1.4 Incorporate vulnerability assessments into species conservation and recovery plans		Directrices de la CSE de UICN para evaluar la vulnerabilidad de las especies al cambio climático
8.1.5. Maintain or restore ecological networks that allow species to move to climatically more suitable areas (see also Target 1).		CMS Review of impacts of climate change on migratory species (tbd) AEWA Strategic Plan 2019-2027, Objective 3: https://www.unep-aewa.org/sites/default/files/basic_page_documents/aewa_strategic_plan_2019-2027_final.pdf AEWA International Species Action and Management Plans that envisage actions on climate change adaptation: https://www.unep-aewa.org/publications/technical-publications?field_publication_type_tid=1417 AEWA Lesser White-fronted Goose climate change vulnerability assessment and adaptation management measures (in development)
<p>GBF 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.</p>		
<p><i>GSAP RATIONALE: Providing the people and communities who depend on wild species for essential food and other needs with the appropriate incentives and equitable benefits underpins sustainable use, thus assuring the persistence of species and continued resource availability</i></p>		
Action	Actors (to be added)	Tools and resources (more inputs to be added)
<p>9.1. Safeguard fully equitable benefit-sharing mechanisms through appropriate legislation and regulations</p>		
9.1.1. Provide Indigenous Peoples and Local Communities with the appropriate legal rights and incentives to protect, manage, and use species sustainably	IPLC ILK holders Community organizations National governments IUCN SSC National Species Specialist Groups MEAs	Nagoya Protocol
9.1.2. Allocate harvest quotas equitably and transparently		IUCN ESMS Standard on Indigenous Peoples. Version 2.1 – December 2019
9.1.3. Guarantee equitable revenues from use and trade in species for IPLC through regulations or legislation		United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), adopted in 2007
9.1.4. Document indigenous and knowledge to support implementation of the Nagoya Protocol		CBD decision on integration of provisions related to indigenous peoples and local communities in the work of the Convention and its Protocols IWC Aboriginal Subsistence Whaling Management Programme (ASWMP): science-based management of aboriginal whaling activities Obligations under CMS and its instruments
<p>9.2 Expand and diversify the wildlife economy to benefit species conservation</p>		
9.2.1. Implement sustainable tourism, and other wildlife-based economies, to increase incentives for maintaining species and their habitats	National governments NGOs	Wildlife Economy guides Wildlife credit schemes Wildlife bonds

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		State of the Wildlife Economy in Africa (2021) IWC Whale Watching Handbook
<p>GBF 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.</p> <p><i>GSAP RATIONALE: Expansion and intensification of agriculture and aquaculture are major drivers of species declines. Increasing the productivity and sustainability of all managed ecosystems will reduce the demand for land and freshwater resources and the associated pressure on wild species.</i></p>		
Action	Actors (to be added)	Tools and resources (more inputs to be added)
10.1. Reduce and reverse the negative impacts of intensive agriculture, aquaculture, forestry on species		
10.1.1. Prevent conversion of all sites and corridors important for species conservation.	Governments FAO IUCN MEAs	Wildlife Economy guides Wildlife credit schemes State of the Wildlife Economy in Africa (2021)
10.1.2. Promote design of agricultural and other managed ecosystems to minimise fragmentation of remaining natural habitats		
10.1.3. Promote farming linked to the Wildlife Economy		
10.1.5. Incorporate key species considerations fully into agricultural, aquacultural and forestry certification schemes		
<p>GBF 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.</p> <p><i>GSAP RATIONALE: Nature-based solutions and green infrastructure approaches explicitly designed to benefit wild species, such as the restoration of ecological networks, contributes to species viability, ecosystem service provision, and resilience to climate change.</i></p>		
Action	Actors (to be added)	Tools and resources (more inputs to be added)
11.1. Maximise the benefits to species from Nature-based solutions		
11.1.1. Scale up NbS to strengthen ecosystem services, climate change resilience, and species viability	IUCN Governments	Nature based solutions report outlining the benefits of scaling NbS across ecological networks Environmental Flows Network (eFlowNet) WANI-Water and Nature Initiative IUCN-OIE Wildlife Disease Risk Analysis Guidelines Manual of procedures for wildlife disease risk analysis IUCN SSC DRA online training courses
11.1.2. Ensure IUCN SSC DRA Guidelines, manual, and training materials are kept up-to-date		
11.1.4. Provide expertise and training on DRA to countries that need it		
<p>GBF Target 12. Increase the area of, access to, and benefits from green and blue spaces, for human health and well-being in urban areas and other densely populated areas.</p> <p><i>GSAP RATIONALE: Appropriate location, design, and management of green and blue spaces can provide additional habitat and improve connectivity for wild species in addition to their benefits for human health and well-being.</i></p>		
Action	Actors (to be added)	Tools and resources (more inputs to be added)

12.1. Manage green and blue spaces to maximise their value for species and connectivity		
12.1.1. Include native species conservation and habitat restoration in urban planning and development greening projects	National and sub-national governments,	A guide for pollinator-friendly cities IUCN Urban Alliance and solutions for Sustainable Urban Development and Resilience
12.1.2. Promote green infrastructure and eco-gardening to benefit species in all education institutions and private households (pollinator-friendly gardening, eco-school gardens)	IUCN, NGOs, Regional and national institutions and organisations	Eco-gardening The Ultimate Guide to Eco-Friendly Gardening A guide for pollinator-friendly cities IUCN SSC Guidelines on Disease Risk Analysis and associated manual and on-line training materials. Sustainable urban development and resilience solutions CMS tools listed under 1.1.1 -1.1.3, 1.2.1 and 1.2.2.
<p>GBF 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.</p> <p><i>GSAP RATIONALE: Equitable access to, and benefit-sharing measures from, the use of genetic resources, including ILK, create incentives for the sustainable use of species and their conservation, and contribute to a fairer economy.</i></p>		
Action	Actors	Tools and resources
13.1. Share the benefits from use of genetic resources equitably among all users]	Business sector Research institutes	Nagoya Protocol and resources
13.2. Apply and accredit ILK where appropriate to secure engagement in species conservation	Governments IUCN Crop Wild Relatives Specialist Group	Free Prior Informed Consent
13.3. Safeguard all crop wild relatives through inclusion in seed banks and culture collections	IUCN Seed Conservation Specialist Group and resources	IUCN Standard on Indigenous Peoples
13.4. Halt the erosion of genetic diversity of wild relatives of domesticated animals, plants, and fungi		
<p>GBF 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.</p> <p><i>GSAP RATIONALE: International and national policies generally prioritize economic growth over species, including subsidies and incentives associated with environmentally harmful practices in fisheries, aquaculture, agriculture, livestock rearing, forestry, mining, and energy, and pollution. Integrating species conservation needs into policies and regulatory frameworks across all sectors contributes directly to many targets and positive species outcomes.</i></p>		
Action	Actors	Tools and resources
14.1. Incorporate species values into whole-government policy and national accounting systems	National governments Multilateral donors	WCC 2020 Res 072 “Importance for the conservation of nature of removing barriers to rights-based voluntary family planning”

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14.2. Reflect fully the ambitions of GBF Targets for species, relevant obligations under other MEAs and the GSAP when updating NBSAPs	Business sector	IUCN Biodiversity & Family Planning Task Force training Population Reference Bureau's resources and training USAID's Knowledge Success "20 Essential Resources: Population, Health & Environment" and Population Health & Environment Toolkits
14.3. Integrate the principle of No Net Loss or Net Positive Impact for biodiversity into development and planning policy affecting species		
14.4. Conduct strategic environmental assessments and environmental and social impact assessments for all major developments thoroughly and transparently to take account of species conservation		
14.5. Ensure removal of barriers to rights-based voluntary family planning	Governments NGOs IUCN Biodiversity & Family Planning Task Force	

GBF 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.

GSAP RATIONALE: The production and supply chain practices are the driving factors behind many threats to species and it is essential to reduce the negative effects and aim for Nature Positive.

Action	Actors (to be added)	Tools and resources
15.1. Apply all international standards to production and supply chains to ensure use of species is sustainable.	Governments NGOs IUCN Agricultural sector Forestry sector	Marine Stewardship Council (MSC): certified sustainable seafood Forest Stewardship Council: forest certification Farming with biodiversity: Towards Nature Positive Production at Scale Responsible Sourcing: A Practical Guide FairWild for wild plant and fungi commodities Fashion Forever Green Pack: sustainable sourcing Fashion Pact, signed by over 300 brands, in which companies commit to "Wildlife friendly' approaches to agriculture, mining and forestry that promote the conservation of key species." Wildlife Friendly Enterprise Network IUCN's <i>Working Paper on the Nature-Positive Approach</i>
15.2. Redesign agricultural production systems to minimize negative impacts, and maximize positive impacts on species		
15.3. Ensure all natural inputs (timber, non-timber wild plants and fungi, fish and other aquatic species, commercially traded fauna species) are obtained from certified sources		

GBF 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.

GSAP RATIONALE: Measures are needed to address patterns of overconsumption through increasing efficiency, limiting waste, and reducing overall demand - especially in developed countries – to limit their negative impacts on wild species.

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Action	Actors	Tools and resources
16.1. Minimize impacts of food production on species by promoting sustainable plant and fungus-based diets, reducing consumption of meat and fish, and eliminating food waste	All institutions and individuals	Planet-based diets: A science based platform to encourage diets that are good for people and planet One Planet Network - Sustainable Food Systems Playbook for guiding diners to plant rich dishes in food services (WRI) Love Food Hate Waste (WRAP)
16.2. Increase use of eco-labelling to help consumers make informed and sustainable choices		
16.3. Support use of local produce		
<p>GBF Target 17. Establish, strengthen capacity for, and implement measures in all countries to prevent, manage or control potential adverse impacts of biotechnology on biodiversity and human health, reducing the risk of these impacts.</p> <p>GSAP RATIONALE: Controlling and managing release of genetically modified organisms and other biotechnology products reduces potentially severe impacts on species, their habitats, and people.</p>		
Action	Actors (to be added)	Tools and resources
17.2. Implement measures to control or manage and monitor individual impacts of biotechnology on wild species	All institutions and individuals	Cartagena Protocol on Biosafety Biosafety Clearing-House
17.3. Develop strict protocols to prevent negative effects on wild species from gene editing and genetic manipulation		
<p>GBF Target 18. Redirect, repurpose, reform or eliminate incentives harmful for biodiversity, in a just and equitable way, reducing them by at least US\$ 500 billion per year, including all of the most harmful subsidies, and ensure that incentives, including public and private economic and regulatory incentives, are either positive or neutral for biodiversity.</p> <p>GSAP RATIONALE: Action by national governments, financial institutions, and multilateral development banks is needed to remove or reduce the most harmful incentives and reform them in ways that are neutral or positive to species conservation.</p>		
Action	Actors (to be added)	Tools and resources
18.1. Identify the economic and regulatory incentives most damaging to species at global / regional / national scales	All institutions and individuals	TBA
18.2. Develop targeted measures to eliminate or repurpose the incentives most damaging to species		
<p>GBF Target 19.1. [Increase 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].</p> <p>19.2. Strengthen capacity-building and development, access to and transfer of technology, and promote development of and access to innovation and technical and scientific cooperation, including through South-South, North-South and triangular cooperation, to meet the needs for effective implementation, particularly in developing countries, fostering joint technology development and joint scientific research programmes for the conservation and sustainable use of biodiversity and strengthening scientific research and monitoring capacities, commensurate with the ambition of the goals and targets of the framework.</p>		

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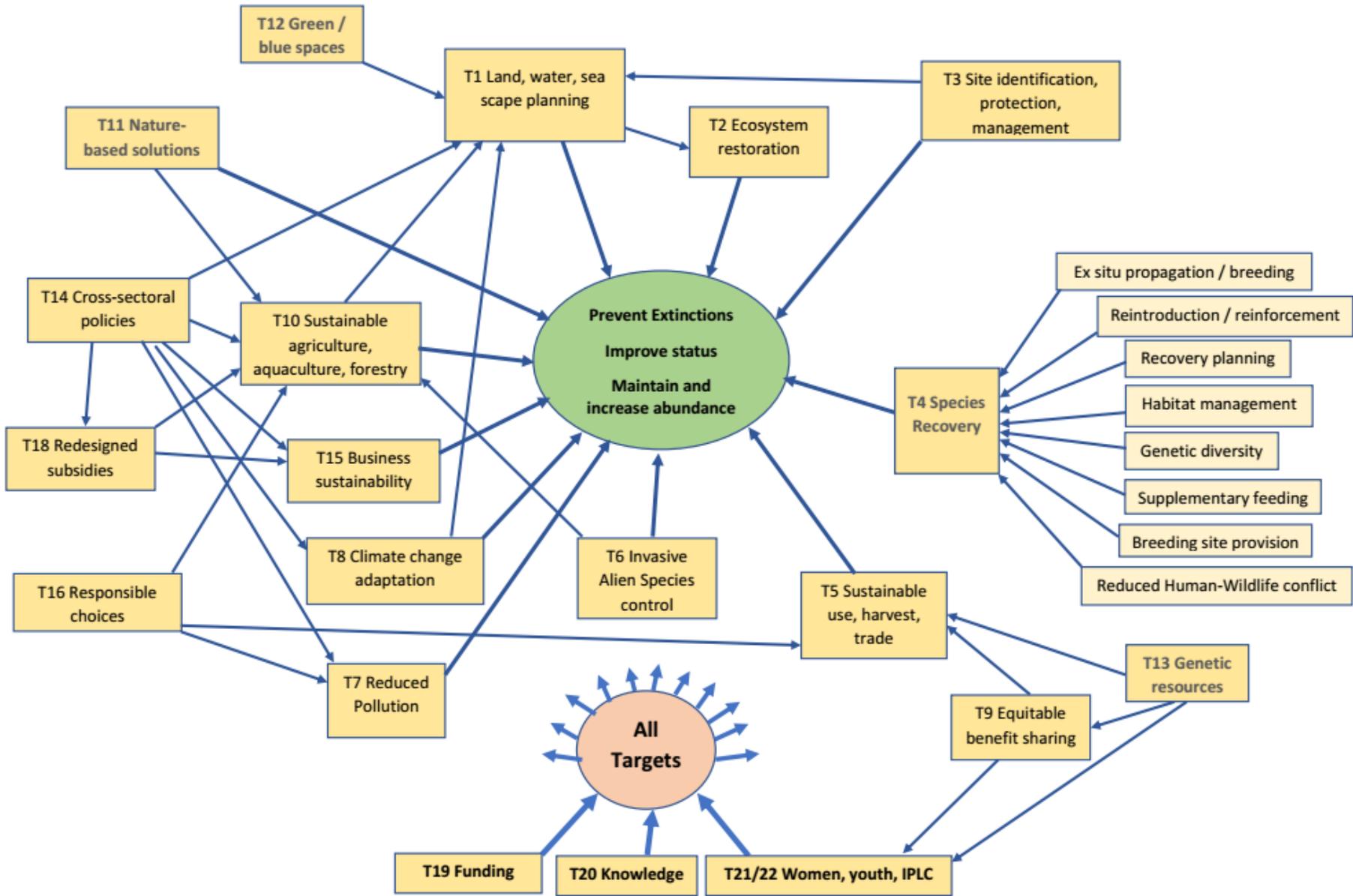
GSAP RATIONALE: Achieving all the needs of species conservation requires a massive increase in funding, capacity building, and knowledge and technology transfer in all countries.		
Action	Actors (to be added)	Tools and resources
19.1.1. Scale up funding from all sources, including redirected subsidies, to implement the actions outlined in the GSAP	Multilateral finance institutions	TBA
19.1.2. Develop innovative financing mechanisms to support the species conservation	Donor agencies Philanthropic sector	
19.2.1. Build adequate capacity for species conservation in all countries	IUCN NGOs Research institutions Governments	
19.2.2. Make available new and emerging science and technology relating to species conservation to all countries		GSAP SKILLS platform IWC WW Handbook IWC entanglement initiative IWC bycatch mitigation initiative pilot projects.
19.2.3. Provide training in species identification, taxonomy, and monitoring		
19.2.4. Support young people to become species conservationists		
<p>GBF 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.</p> <p>GSAP RATIONALE: Knowledge of the status, distribution, population trend, ecology, and threats to species is essential to set priorities, inform planning, determine levels of sustainable use, and implement action effectively. IPLCs have much of this knowledge embedded in their practices and use of their lands and resources, especially those upon which their livelihoods depend. Systematic monitoring of species and the condition of their habitats is needed to track trends and measure effectiveness of conservation action.</p>		
Action	Actors	Tools and resources
20.1. Assess and monitor the status, trends, abundance, and conservation potential of species	IUCN Governments, WWF NGOs Research institutions All stakeholders	IUCN Red List The IUCN Green Status of Species IWC population status and Population (abundance) estimates Wildlife Insights Living Planet Index World Database on KBAs World Database on Protected Areas Citizen science programmes (iNaturalist, e-Bird, etc). UN Biodiversity Lab: Providing decision makers with the best available spatial data
20.2. Assess and monitor the status, and trends of ecosystems		
20.3. Develop co-monitoring plans for species with IPLC		
20.4. Build partnerships between research institutions and conservation agencies		
20.5. Integrate the latest and emerging technologies in survey and monitoring programmes		

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20.6. Maintain all relevant guidelines and other key documents and make available in multiple languages	Biodiversity-related conventions Governemnts IUCN All stakeholders		
<p>GBF 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.</p> <p><i>GSAP RATIONALE: Equitable participation in decisions that affect species conservation by indigenous peoples and local communities, women and youth, and respect for their rights increases their participation and commitment and enhances successful species outcomes.</i></p>			
Action	Actors (to be added)	Tools and resources (more inputs to be added)	
21.1. Involve IPLCs fully in relevant processes and decisions affecting species conservation	Governments IPBES IUCN NGOs	ICCA Consortium Nagoya Protocol Free Prior Informed Consent IUCN Standard on Indigenous Peoples SSC Guidelines on Applying ILK in the Red list	
21.2. Ensure safety of IPLC and environmental activists			
<p>GBF Target 22. Ensure equitable and effective participation in decision-making related to biodiversity by women and girls, and youth.</p> <p><i>GSAP RATIONALE Equitable participation in decisions that affect species conservation by women and youth, and respect for their rights, increases their participation and commitment and enhances successful species outcomes.</i></p>			
22.1. Ensure equitable participation by women and youth, in decisions affecting species conservation	UN Secretary General's Envoy on Youth IUCN MEAs NGOs	CBD Gender Tools Gender Action Plan ASAP Women in Conservation Leadership Programme World Wildlife Day Conservation Leadership Programme Youth for Wildlife Conservation Global Youth Biodiversity Network CITES Youth Engagement IUCN Conservation Congress Global Youth Summit GEF Small Grant programme Youth Participation IUCN Climate Change Gender Action Plan	
22.2. Use the annual World Wildlife Day to incentivize wildlife conservation awareness among younger generations			
22.3. Mainstream gender into the development and implementation of National Biodiversity Strategy and Action Plans (NBSAPs)			

Figure 1: Schematic diagram illustrating some of the interconnections between GBF Targets and key species outcomes

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Annex 1. Glossary of abbreviations and acronyms

ABS	Access and Benefit-sharing
AEWA	Agreement on the Conservation of African-Eurasian Migratory Waterbirds
ASAP	The IUCN SSC Asian Species Action Partnership
AZE	Alliance for Zero Extinction
CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMS	Convention on the Conservation of Migratory Species of Wild Animals
COP	Conference of Parties
CPSG	Conservation Planning Specialist Group
EAZA	European Association of Zoos and Aquaria
EIA	Environmental impact assessment
ESIA	Environmental and Social Impact Assessment
EU	European Union
FPIC	Free, Prior and Informed Consent
FSC	Forest Stewardship Council
GBF	Global Biodiversity Framework
GEF	Global Environment Facility
GSAP	Global Species Action Plan
HWC	Human wildlife conflict
ICCA	Indigenous and community conserved areas, or indigenous peoples' and community conserved territories and areas
ILK	Indigenous and Local Knowledge
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPLC	Indigenous Peoples and Local Communities
IPPC	International Plant Protection Convention
IRF	International Ranger Federation
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
IUCN	International Union for Conservation of Nature
IWC	International Whaling Commission
KBA	Key Biodiversity Area
MAB	Man and Biosphere
MEA	Multilateral Environmental Agreements
NBSAP	National Biodiversity Strategy and Action Plan
NGO	Non-Governmental Organisation
OECM	Other effective area-based conservation measures
PA	protected area
Ramsar	Ramsar Convention on Wetlands
SBSTTA	Subsidiary Body on Scientific, Technical and Technological Advice
SDG	Sustainable Development Goals
SSC	Species Survival Commission
STAR	Species Threat Abatement and Recovery (STAR) Metric
UN	United Nations
UNEP-WCMC	United Nations Environment Programme World Conservation Monitoring Centre
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNFCCC	United Nations Framework Convention on Climate Change
URSA	Universal Ranger Support Alliance
WAZA	World Association of Zoos and Aquariums
WCPA	World Commission on Protected Areas
WDKBA	The World Database of Key Biodiversity Areas™
WDPA	World Database on Protected Areas
WHC	World Heritage Convention
WHS	World Heritage Site
WWF	World Wide Fund for Nature



Ministry of Environment
Republic of Korea

