CENTER for LARGE LANDSCAPE CONSERVATION

Ms. Astrid Schomaker, Executive Secretary
Secretariat of the Convention on Biological Diversity
World Trade Centre
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Bozeman, MT (USA)
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Submission of views and information relating to the strategic review and analysis of the current Programme of work on protected areas (PowPA) in the context of the Kunming-Montreal Global Biodiversity Framework.

Dear Executive Secretary Schomaker,

I, the undersigned Manager of the International Connectivity Program at the Center for Large Landscape Conservation (CLLC) – a non-governmental organization serving as Observer to the Conference of the Parties to the Convention since 2018 – herewith submit views and information relating to the strategic review and analysis of the current Programme of work on protected areas (PowPA) in the context of the Kunming-Montreal Global Biodiversity Framework.

With highest regards,



Aaron Laur
Manager, International Connectivity Program

Introduction

The Center for Large Landscape Conservation (CLLC) highlights that "ecological connectivity" is defined by the Convention on Migratory Species as "[…] the unimpeded movement of species, connection of habitats without hinderance, and the flow of natural processes that sustain life on Earth" (CMS Resolution 14.16 "Ecological Connectivity", 2024).[1] Ecological connectivity is a vital conservation priority with its importance reflected in major scientific assessments and global policy commitments including the Convention on Biological Diversity's (CBD) Kunming-Montreal Global Biodiversity Framework (KMGBF) explicitly in Goal A and Targets 2, 3, and 12 as well as implicitly in Targets 1 and 14. It is acknowledged that Target 3's aim to increase coverage of protected areas and other effective area-based conservation measures (OECMs) – hereafter protected and conserved areas (PCAs) – is a key component of area-based conservation. Yet, to ensure that the global network of PCAs achieves the KMGBF's aims to halt and reverse biodiversity loss, countries need to increase focus on the "well-connected" element of Target 3.

While PCAs are regarded as cornerstones of biodiversity protection, and coverage has increased over the decades, many remain in isolation and are not connected as part of wider ecological networks. This is substantiated in the *Protected Planet Report 2024* finding that although 17.6 per cent of global land was protected by PAs and OECMs, the network of PAs and OECMs "[...] is not well-connected yet" with only 8.52% of the world's terrestrial surface protected and connected and measures of connectivity for inland waters and the marine realm not currently available (UNEP-WCMC & IUCN, 2024).[2] Well-connected PCAs are particularly important to avoid and mitigate biodiversity loss as they facilitate species movement and migration – connecting populations – and maintain ecosystem functioning. Furthermore, as ecosystems and species are impacted by climate change, considering the integration of PCAs at larger spatial scales across and integrated into wider landscapes and seascapes and the ocean, especially their ecological networks, ecological corridors, and/or buffer zones, will become increasingly important for biodiversity and ecosystem process resilience.

Toward supporting national and subnational efforts to achieve the "well-connected" element of Target 3, the *IUCN Guidelines for conserving connectivity through ecological networks and corridors* (Hilty et al., 2020)[3] are now available in six languages and based on best available science and practice for maintaining, enhancing, and restoring ecological connectivity among and between PCAs and other intact ecosystems. The Guidelines provide a common definition of "ecological corridors" as "[...] a clearly defined geographic space that is governed and managed over the long term to maintain or restore effective ecological connectivity" and a common definition of "ecological networks for conservation" as "[a] system of core habitats (protected areas, OECMs and other intact natural areas), connected by ecological corridors, which is established, restored as needed and maintained to conserve biological diversity in systems that have been fragmented". Additionally, the *IUCN WCPA Technical Report Addressing ecological*

[1] https://www.cms.int/document/ecological-connectivity
[2] https://digitalreport.protectedplanet.net/?chapter=6#report_chapters-3
[3] https://portals.iucn.org/library/node/49061

connectivity in the development of roads, railways, and canals[4] provides an overview of practical, feasible science-based strategies for PCA managers, transport practitioners, industry, conservationists, and other stakeholders to foremost avoid, and otherwise mitigate, negative impacts of linear transport infrastructure development in and adjacent to PCAs.

Bearing in mind that the 8th IUCN World Conservation Congress in October 2025 adopted Motion 127 'Recognising and Reporting Ecological Corridors'[5] and with a view to consistency with IUCN's World Commission on Protected Areas' own submission, CLLC provides the following suggested revisions for updating CBD's Programme of work on protected areas (PowPA). By increasing and sharpening focus on maintaining, enhancing, and restoring ecological connectivity, the PoWPA can more efficiently and effectively promote goals, actions, actors, time frames, inputs, and measurable outputs for maximizing implementation of commitments across the KMGBF.

Suggested revisions

Goal/ Target/ Action #	2004 PowPA formulation	2026 Suggested revisions
	REGARDING "PROGRAMME ELEMENT 1: Direct actions for planning, selecting, establishing, strengthening, and managing, protected area systems and sites"	
Target 1.1	By 2010, terrestrially / and 2012 in the marine area, a global network of comprehensive, representative and effectively managed national and regional protected area system is established as a contribution to (i) the goal of the Strategic Plan of the Convention and the World Summit on Sustainable Development of achieving a significant reduction in the rate of biodiversity loss by 2010; (ii) the Millennium Development Goals - particularly goal 7 on ensuring environmental sustainability; and (iii) the Global Strategy for Plant Conservation.	By 2030, at least 30 per cent of terrestrial, inland water, and of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of PCAs, integrated into wider landscapes and seascapes in accordance with Target 3 of the Kunming-Montreal Global Biodiversity Framework, and other linked KMGBF Targets.
Activity 1.1.2	As a matter of urgency, by 2006, take action to establish or expand protected areas in any large, intact or relatively unfragmented or highly irreplaceable natural areas, or areas under high threat, as well as areas securing the most threatened species in the context of national priorities and taking into consideration the conservation needs of migratory species.	By 2027, take action to establish, expand, or connect PCAs in any large, intact or relatively unfragmented or highly irreplaceable natural areas, key biodiversity areas ("areas of particular importance for biodiversity and ecosystem functions and services") and areas under high threat, as well as areas important to many threatened species in the context of national priorities, and taking into consideration the conservation needs of migratory species.

[4] https://portals.iucn.org/library/node/51263

[5] https://iucncongress2025.org/assembly/motions/motion/127

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Activity 1.1.5	By 2006 complete protected area system gap analyses at national and regional levels based on the requirements for representative systems of protected areas that adequately conserve terrestrial, marine and inland water biodiversity and ecosystems. National plans should also be developed to provide interim measures to protect highly threatened or highly valued areas wherever this is necessary. Gap analyses should take into account Annex I of the Convention on Biological Diversity and other relevant criteria such as irreplaceability of Target biodiversity components, minimum effective size and viability requirements, species migration requirements, integrity, ecological processes and ecosystem services.	By 2027 complete revised and updated PCA system gap analyses at national and regional levels based on the requirements for representative systems of PCAs that adequately conserve terrestrial, marine, and inland water biodiversity and ecosystems. National plans should also be developed to provide interim measures to protect highly threatened or highly valued areas wherever this is necessary. Gap analyses should take into account Annex I of the Convention on Biological Diversity and other relevant criteria such as irreplaceability of Target biodiversity components, minimum effective size and viability requirements, species migration requirements, integrity, connectivity, ecological processes, and ecosystem services.
Target 1.2	By 2015, all protected areas and protected area systems are integrated into the wider land- and seascape, and relevant sectors, by applying the ecosystem approach and taking into account ecological connectivity and the concept, where appropriate, of ecological networks.	By 2030, all PCAs and PCA systems are effectively integrated into the wider landscapes and seascapes, and/or the ocean, through spatial planning (Target 1), by applying the ecosystem approach, and maintaining, enhancing, or restoring ecological connectivity through ecological networks and ecological corridors.
Activity 1.2.3	Integrate regional, national and sub-national systems of protected areas into broader land- and seascape, inter alia by establishing and managing ecological networks, ecological corridors and/or buffer zones, where appropriate, to maintain ecological processes and also taking into account the needs of migratory species.	Integrate regional, national and sub-national systems of PCAs into broader land- and seascapes, inter alia by establishing and managing ecological networks, ecological corridors and/or buffer zones, where appropriate, to maintain ecological processes and also taking into account the needs of migratory species.
Activity 1.2.4	Develop tools of ecological connectivity, such as ecological corridors, linking together protected areas where necessary or beneficial as determined by national priorities for the conservation of biodiversity.	Develop tools of ecological connectivity, such as ecological corridors, linking together PCAs where necessary or beneficial as determined by national priorities for the conservation of biodiversity.
Activity 1.2.5	Rehabilitate and restore habitats and degraded ecosystems, as appropriate, as a contribution to building ecological networks, ecological corridors and/or buffer zones.	Rehabilitate and restore habitats and areas of degraded terrestrial, inland water, and coastal and marine ecosystems, as appropriate, as a contribution to building ecological networks, ecological corridors and/or buffer zones, in accordance with Target 2.

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Activity 1.3.1	Collaborate with other parties and relevant partners to establish effective regional networks of protected areas, particularly in areas identified as common conservation priorities (e.g. barrier reef systems, large scale river basins, mountain systems, large remaining forest areas and critical habitat for endangered species), and establish multi-country coordination mechanisms as appropriate to support the establishment and effective long term management of such networks.	Collaborate with other parties and relevant partners to establish effective regional networks of PCAs, particularly in areas identified as common conservation priorities (e.g. barrier reef systems, large scale river basins, mountain systems, large remaining forest areas, migratory routes, and critical habitat for endangered species), and establish multi-country coordination mechanisms as appropriate to support the establishment and effective long term management of such networks.
Activity 1.3.7	Review the potential for regional cooperation under the Convention on Migratory Species with a view to linking of protected area networks across international boundaries and potentially beyond national jurisdiction through the establishment of migratory corridors for key species.	Review the potential for regional cooperation under the Convention on Migratory Species with a view to linking of PCA networks across international boundaries and potentially beyond national jurisdiction through the establishment and management of ecological networks and ecological corridors for migratory routes for key species.
Goal 1.5	To prevent and mitigate the negative impacts of key threats to protected areas	To prevent and mitigate the negative impacts of key threats to PCAs and their ecological networks, ecological corridors, and/or buffer zones.
Activity 1.5.1	Apply, as appropriate, timely environmental impact assessments to any plan or project with the potential to have effects on protected areas, and ensure timely information flow among all concerned parties to that end, taking into account decision VI/7 A of the Conference of the Parties on guidelines for incorporating biodiversity related issues into environmental impact assessment legislation and/or processes and in strategic environmental assessments.	Apply, as appropriate, timely environmental impact assessments to any plan or project with the potential to have effects on PCAs and their ecological networks, ecological corridors, and/or buffer zones, and ensure timely information flow among all concerned parties to that end, taking into account decision VI/7 A on guidelines for incorporating biodiversity related issues into environmental impact assessment legislation and/or processes and in strategic environmental assessments; and Decision VIII/28 on biodiversity-inclusive impact assessment.
Activity 1.5.2	Develop by 2010 national approaches to liability and redress measures, incorporating the polluter pays principle or other appropriate mechanisms in relation to damages to protected areas.	Develop by 2030 national approaches to liability and redress measures, incorporating the polluter pays principle or other appropriate mechanisms in relation to damages to PCAs and their ecological networks, ecological corridors, and/or buffer zones.
Activity 1.5.5	Assess key threats to protected areas and develop and implement strategies to prevent and/or mitigate such threats.	Assess and understand the mechanisms behind key threats to PCAs and their ecological networks, ecological corridors,

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		and/or buffer zones, and develop and implement strategies to prevent and/or mitigate such threats, including species extinction, loss of genetic diversity and human-wildlife conflict (Target 4); alien species invasion (Target 6); pollution (Target 7); and impacts of climate change (Target 8).
Activity 1.5.6	Develop policies, improve governance, and ensure enforcement of urgent measures that can halt the illegal exploitation of resources from protected areas, and strengthen international and regional cooperation to eliminate illegal trade in such resources taking into account sustainable customary resource use of indigenous and local communities in accordance with article 10(c) of the Convention.	Develop policies, improve governance, and ensure enforcement of urgent measures that can halt the illegal exploitation of resources from PCAs and their ecological networks, ecological corridors, and/or buffer zones, and strengthen international and regional cooperation to eliminate illegal trade (ideally through a mix of enforcement, crime prevention, and restorative justice practices) in such resources taking into account sustainable customary resource use of indigenous and local communities in accordance with article 10(c) of the Convention and Target 5. Encourage active participation of communities in these elimination efforts to ensure local support.
Activity 1.5.7	Address issues specific to protected areas, in the guidelines for incorporating biodiversity considerations in environmental impact assessment and strategic environmental assessment, procedures and regulations.	Address issues specific to PCAs and their ecological networks, ecological corridors, and/or buffer zones in the guidelines for incorporating biodiversity considerations in environmental impact assessment and strategic environmental assessment, procedures and regulations.
Activity 1.5.8	Collaborate with the International Association for Impact Assessment and other relevant organizations on further development and refinement of the impact assessment guidelines particularly to incorporate all stages of environmental impact assessment processes in protected areas taking into account the ecosystem approach.	Collaborate with the International Association for Impact Assessment and other relevant organizations on further development and refinement of the impact assessment guidelines particularly to incorporate all stages of environmental impact assessment processes in PCAs and their ecological networks, ecological corridors, and/or buffer zones taking into account the ecosystem approach.
	REGARDING "PROGRAMME ELEMENT 2: Governance, Participation, Equity and Benefit Sharing"	
Activity 2.1.1	Assess the economic and socio-cultural costs, benefits and impacts arising from the establishment and maintenance of protected areas, particularly for indigenous and local communities, and adjust policies to avoid and mitigate negative impacts, and where appropriate	Assess the economic and socio-cultural costs, benefits, opportunities and impacts arising from the establishment and maintenance of PCAs and their ecological networks, ecological corridors, and/or buffer zones, particularly for indigenous and local communities, and adjust policies to

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	compensate costs and equitably share benefits in accordance with the national legislation.	avoid and mitigate negative impacts, optimise positive impacts, and where appropriate compensate costs. Equitably share benefits in accordance with the national legislation and Target 13.
Target 2.2	Full and effective participation by 2008, of indigenous and local communities, in full respect of their rights and recognition of their responsibilities, consistent with national law and applicable international obligations, and the participation of relevant stakeholders, in the management of existing, and the establishment and management of new, protected areas	Full and effective participation by 2026, of Indigenous Peoples and local communities, in full respect of their rights and recognition of their responsibilities, consistent with national law and applicable international obligations, and the participation of relevant stakeholders, in the management of existing, and the establishment and management of new, PCAs and their ecological networks, ecological corridors, and/or buffer zones.
Activity 2.2.1	Carry out participatory national reviews of the status, needs and context-specific mechanisms for involving stakeholders, ensuring gender and social equity, in protected areas policy and management, at the level of national policy, protected area systems and individual sites.	Carry out participatory national reviews of the status, needs and context-specific mechanisms for involving stakeholders, ensuring gender and social equity, in PCA policy and management, at the level of national policy, PCA systems and individual sites, and their ecological networks, ecological corridors, and/or buffer zones.
Activity 2.2.2	Implement specific plans and initiatives to effectively involve indigenous and local communities, with respect for their rights consistent with national legislation and applicable international obligations, and stakeholders at all levels of protected areas planning, establishment, governance and management, with particular emphasis on identifying and removing barriers preventing adequate participation.	Implement specific plans and initiatives to effectively enable indigenous and local community leadership and stewardship, with respect for their rights consistent with national legislation and applicable international obligations, and stakeholders at all levels of PCAs and their ecological networks, ecological corridors, and/or buffer zones planning, establishment, governance and management, with particular emphasis on identifying and removing barriers preventing adequate participation.
Activity 2.2.4	Promote an enabling environment (legislation, policies, capacities, and resources) for the involvement of indigenous and local communities and relevant stakeholders [73]/ in decision making, and the development of their capacities and opportunities to establish and manage protected areas, including community-conserved and private protected areas.	Promote an enabling environment (legislation, policies, capacities, and resources) for the involvement of Indigenous Peoples and local communities and relevant stakeholders in decision making, and the development of their capacities and opportunities to establish and manage PCAs, including community-conserved and privately protected areas and their ecological networks, ecological corridors, and/or buffer zones (Target 22).
Activity 2.2.5	Ensure that any resettlement of indigenous communities as a	Ensure that any proposed management action, including resettlement of indigenous

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	consequence of the establishment or management of protected areas will only take place with their prior informed consent that may be given according to national legislation and applicable international obligations.	communities as a consequence of the establishment or management of protected areas and their ecological networks, ecological corridors, and/or buffer zones will only take place with their prior informed consent that may be given according to national legislation and applicable international obligations.
Activity 2.2.6	Make available to Parties case-studies, advice on best practices and other sources of information on stakeholder participation in protected areas	Make available to Parties case-studies, advice on best practices and other sources of information on stakeholder participation in protected areas and their ecological networks, ecological corridors, and/or buffer zones. Facilitate the compilation of community led case studies.
Activity 2.2.7	Promote, through the CHM, technical publications and other means, the international sharing of experience on effective mechanisms for stakeholder involvement and governance types in conservation in particular with regard to co-managed protected areas, indigenous and local community conserved areas and private protected areas.	Promote, through the CHM, technical publications and other means, the international sharing of experience on effective mechanisms for stakeholder involvement and governance types in conservation in particular with regard to shared governance protected areas, indigenous and local community conserved areas and privately protected areas, and their ecological networks, ecological corridors, and/or buffer zones.
	REGARDING "PROGRAMME ELEMENT 3: Enabling Activities"	
Goal 3.1	To provide an enabling policy, institutional and socio-economic environment for protected areas	To provide an enabling policy and institutional and socio-economic environment for PCAs and their ecological networks, ecological corridors, and/or buffer zones that is coherent across government
Activity 3.1.1	By 2006, identify legislative and institutional gaps and barriers that impede the effective establishment and management of protected areas, and by 2009, effectively address these gaps and barriers.	By 2027, identify legislative and institutional gaps and barriers that impede the effective establishment and management of PCAs and their ecological networks, ecological corridors, and/or buffer zones, and by 2030, effectively address these gaps and barriers.
Activity 3.1.2	Conduct national-level assessments of the contributions of protected areas, considering as appropriate environmental services, to the country's economy and culture, and to the achievement of the Millennium Development Goals at the national level; and integrate the use of economic valuation and natural resource	Conduct national-level assessments of the contributions of PCAs and their ecological networks, ecological corridors, and/or buffer zones as key nature-based solutions for climate change adaptation and mitigation, as providers of ecosystem services, economic value-added and costs avoided, cultural heritage, and human well-being. These assessments should be

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	accounting tools into national planning processes in order to identify the hidden and non-hidden economic benefits provided by protected areas and who appropriates these benefits.	integrated into PCA monitoring systems and management effectiveness evaluations, which help quantify both visible and hidden economic benefits and identify who benefits (or incurs costs) from them.
Activity 3.1.3	Harmonize sectoral policies and laws to ensure that they support the conservation and effective management of the protected area system.	Harmonize sectoral policies and laws to ensure that they support the conservation and effective management of the PCA system and their ecological networks, ecological corridors, and/or buffer zones, and to encourage active participation of communities in these elimination efforts to ensure buy-in from them.
Activity 3.1.5	Identify and remove perverse incentives and inconsistencies in sectoral policies that increase pressure on protected areas, or take action to mitigate their perverse effects. Whenever feasible, redirect these to positive incentives for conservation.	Identify and remove perverse incentives and inconsistencies in sectoral policies that increase pressure on PCAs and their ecological networks, ecological corridors, and/or buffer zones and undermine funding, or take action to mitigate their perverse effects, in accordance with KMGBF Target 18. Whenever feasible, redirect these to positive incentives for conservation.
Activity 3.1.6	Identify and establish positive incentives that support the integrity and maintenance of protected areas and the involvement of indigenous and local communities and stakeholders in conservation.	Identify and establish positive incentives that support the integrity and maintenance of PCAs and their ecological networks, ecological corridors, and/or buffer zones, reward nature-positive activities and benefits, and promote the involvement of Indigenous Peoples and local communities and stakeholders in conservation. Combine these with appropriate disincentives that prevent and limit opportunities for threats to biodiversity to increase. Furthermore, create capacity for joint threat and harmful activity reduction between IPLCs and the state.
Activity 3.1.7	Adopt legal frameworks to national, regional and sub-national protected areas systems of countries where appropriate.	Adopt legal frameworks to national, regional and sub-national PCA systems and their ecological networks, ecological corridors, and/or buffer zones of countries where appropriate.
Activity 3.1.8	Develop national incentive mechanisms and institutions and legislative frameworks to support the establishment of the full range of protected areas that achieve biodiversity conservation objectives including on private lands and private reserves where appropriate.	Develop national incentive mechanisms and institutions and legislative frameworks to support the establishment of the full range of PCAs and their ecological networks, ecological corridors, and/or buffer zones that achieve biodiversity conservation objectives including on private lands and private reserves where appropriate.

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Activity 3.1.9	Identify and foster economic opportunities and markets at local, national and international levels for goods and services produced by protected areas and/or reliant on the ecosystem services that protected areas provide, consistent with protected area objectives and promote the equitable sharing of the benefits.	Identify and foster economic opportunities, markets and investments at local, national and international levels for goods and services produced by PCAs and their ecological networks, ecological corridors, and/or buffer zones, and/or reliant on the ecosystem services that PCAs provide, consistent with PCA objectives and promote the equitable sharing of the benefits.
Activity 3.1.11	Cooperate with neighbouring countries to establish an enabling environment for transboundary protected areas and for neighbouring protected areas across national boundaries and other similar approaches including regional networks.	Cooperate with neighbouring countries to establish an enabling environment for transboundary PCAs and for neighbouring PCAs across national boundaries and other similar approaches including regional networks and their ecological networks, ecological corridors, and/or buffer zones.
Activity 3.1.13	Compile and disseminate, through the CHM and other media, case-studies on best practices on the use of incentive measures for the management of protected areas.	Compile and disseminate, through the CHM and other media, case-studies on best practices on the use of incentive measures for the management of PCAs and their ecological networks, ecological corridors, and/or buffer zones.
Activity 3.1.14	Compile and disseminate through the CHM and other media best practices on ways and means to integrate the use of incentive measures into protected area management plans, programmes and policies including opportunities for the removal or mitigation of perverse incentives.	Compile and disseminate through the CHM and other media best practices on ways and means to integrate the use of incentive measures into PCA management plans, programmes and policies and their ecological networks, ecological corridors, and/or buffer zones including opportunities for the removal or mitigation of perverse incentives.
Goal 3.2	To build capacity for the planning, establishment and management of protected areas	To build and sustain capacity for the planning, establishment, management, administration and governance of PCAs and their ecological networks, ecological corridors, and/or buffer zones.
Activity 3.2.2	Establish effective mechanisms to document existing knowledge and experiences on protected area management, including traditional knowledge in accordance with Article 8 (j) and Related Provisions, and identify knowledge and skills gaps.	Conduct collaborative reviews of the knowledge, experiences, practices and capacity needs of owners and stewards of PCAs and community conserved areas and their ecological networks, ecological corridors, and/or buffer zones (including Indigenous and traditional owners and stewards), and collaborate to develop programmes to recognise, reinforce and build their capacities as required and appropriate. in accordance with Article 8 (j) and Related Provisions, and identify knowledge and skills gaps.

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Goal 3.3	To develop, apply and transfer appropriate technologies for protected areas	To develop, apply and transfer appropriate sciences and technologies for PCAs and their ecological networks, ecological corridors, and/or buffer zones, that are applied in a socially responsible way and with the right working conditions
Target 3.3	By 2010 the development, validation, and transfer of appropriate technologies and innovative approaches for the effective management of protected areas is substantially improved, taking into account decisions of the Conference of the Parties on technology transfer and cooperation.	By 2030 the development, validation, and transfer of appropriate and socially responsible sciences, technologies and innovative approaches for the effective management of PCAs and their ecological networks, ecological corridors, and/or buffer zones is substantially improved, demonstrating substantial progress towards attaining KMGBF Target 20 (Strengthen Technology Transfer and Scientific and Technical Cooperation for Biodiversity).
Activity 3.3.1	Document and make available to the Executive Secretary appropriate technologies for conservation and sustainable use of biological diversity of protected areas and management of protected areas.	Document and make available to the Executive Secretary socially responsible and appropriate technologies for conservation, sustainable use, and management of biological diversity of PCAs and their ecological networks, ecological corridors, and/or buffer zones.
Activity 3.3.2	Assess needs for relevant technologies for protected area management involving indigenous and local communities and stakeholders such as the, research institutions, non-Governmental organizations and the private sector.	Assess needs for relevant technologies for PCA management and their ecological networks, ecological corridors, and/or buffer zones involving indigenous and local communities and stakeholders such as the research institutions, non-governmental organizations, and the private sector. Assess working conditions and the capacity and competences needed to use new technologies. Assess the need for relevant sciences and technologies.
Activity 3.3.4	Promote an enabling environment for the transfer of technology in accordance with decision VII/29 of the Conference of Parties on technology transfer and cooperation to improve protected area management.	Promote an enabling environment and working conditions for the transfer of technology in accordance with decision VII/29 of the Conference of Parties on technology transfer and cooperation to improve PCA management and their ecological networks, ecological corridors, and/or buffer zones and Target 20 of the KMGBF.
Activity 3.3.5	Increase technology transfer and cooperation to improve protected area management.	Increase technology transfer and cooperation to improve PCA management and their ecological networks, ecological corridors, and/or buffer zones, on a

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		foundation of good basic working conditions.
Activity 3.3.6	Compile and disseminate information provided by Parties and relevant international organizations on appropriate technologies and approaches for efficient management of protected areas and conservation and sustainable use of biological diversity of protected areas.	Compile and disseminate information provided by Parties and relevant international organizations on socially responsible and appropriate technologies and approaches for efficient management of PCAs and conservation and sustainable use of biological diversity of PCAs and their ecological networks, ecological corridors, and/or buffer zones.
Activity 3.4.3	Support and further develop international funding programmes to support implementation of national and regional systems of protected areas in developing countries and countries with economies in transition and small island developing States.	Support and further develop international funding programmes and fund mechanisms from public, private and market sources to support implementation of national and regional systems of PCAs and their ecological networks, ecological corridors, and/or buffer zones in developing countries and countries with economies in transition and small island developing States, including those located in ITTs and managed by IPLCs, and on private lands.
Activity 3.4.4	Collaborate with other countries to develop and implement sustainable financing programmes for national and regional systems of protected areas.	Collaborate with other countries to develop and implement sustainable financing programmes for national and regional systems of PCAs and their ecological networks, ecological corridors, and/or buffer zones, including those located in ITTs and managed by IPLCs , and on private lands.
Activity 3.4.5	Provide regular information on protected areas financing to relevant institutions and mechanisms, including through future national reports under the Convention on Biological Diversity, and to the World Database on Protected Areas.	Provide regular information on the national status, trends, challenges and opportunities in financing for PCAs and their ecological networks, ecological corridors, and/or buffer zones to relevant institutions and mechanisms, including through future national reports under the Convention on Biological Diversity, and to the World Database on Protected Areas.
Activity 3.4.6	Encourage integration of protected areas needs into national and, where applicable, regional development and financing strategies and development cooperation programmes.	Encourage and wherever possible track integration of PCAs and their ecological networks, ecological corridors, and/or buffer zones needs into national and, where applicable, regional development and financing strategies and development cooperation programmes.
Activity 3.4.8	Compile and disseminate case-studies and best practices concerning protected area financing through the clearing-house mechanism and other media.	Compile and disseminate case-studies and best practices concerning PCAs and their ecological networks, ecological corridors, and/or buffer zones financing, especially

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		those located in ITTs and managed by IPLCs, through the clearing-house mechanism and other media.
Target 3.5	By 2008 public awareness, understanding and appreciation of the importance and benefits of protected areas is significantly increased.	By 2027 public awareness, understanding and appreciation of the importance and benefits of PCAs and their ecological networks, ecological corridors, and/or buffer zones is significantly increased; and by 2030, communities living near to PCAs and their ecological networks, ecological corridors, and/or buffer zones are supportive of conservation efforts and visitors to PCAs are engaged in positive behaviours and collaborative threat reduction
Activity 3.5.1	Establish or strengthen strategies and programmes of education and public awareness on the importance of protected areas in terms of their role in biodiversity conservation and sustainable socioeconomic development, in close collaboration with the Communication, Education and Public Awareness Initiative (CEPA) under the Convention on Biological Diversity and Targeted towards all stakeholders.	Establish or strengthen strategies and programmes of education and public awareness on the importance of PCAs and their ecological networks, ecological corridors, and/or buffer zones in terms of their role in biodiversity conservation and sustainable socioeconomic development, in close collaboration with the Communication, Education and Public Awareness Initiative (CEPA) under the Convention on Biological Diversity and targeted towards all stakeholders.
Activity 3.5.2	Identify core themes for education, awareness and communication programmes relevant to protected areas, including *inter alia* their contribution to economy and culture to achieve specific end results such as compliance by resource users and other stakeholders or an increased understanding of science-based knowledge by indigenous and local communities and policy makers and an increased understanding of the needs, priorities and value of indigenous and local communities knowledge, innovations and practices by Governments, non-Governmental organizations and other relevant stakeholders.	Identify core themes for education, awareness and communication programmes relevant to PCAs and their ecological networks, ecological corridors, and/or buffer zones, including *inter alia* their contribution to economy and culture to achieve specific end results such as compliance by resource users and other stakeholders or an increased understanding of science-based / traditional knowledge by Indigenous Peoples and local communities (and vice versa) and policy makers and an increased understanding of the needs, priorities and value of Indigenous Peoples and local communities knowledge, innovations and practices by Governments, non-Governmental organizations, and other relevant stakeholders. Prioritize human-nature connection through promoting worldviews and values that emphasize care, reciprocity, and harmony with nature. These worldviews include those associated with Indigenous and local knowledge systems.[10]

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Activity 3.5.5	Incorporate the subject of protected areas as an integral component of the school curricula as well as in informal education.	Incorporate the subject of PCAs and their ecological networks, ecological corridors, and/or buffer zones as an integral component of the school curricula as well as in informal education.
Activity 3.5.6	Establish mechanism and evaluate the impacts of communication, education and public awareness programmes on biodiversity conservation to ensure that they improve public awareness, change behaviour and support the achievement of protected area objectives.	Establish mechanism and evaluate the impacts of communication, education and public awareness programmes on biodiversity conservation to ensure that they improve public awareness, change behaviour and support the achievement of PCAs and their ecological networks, ecological corridors, and/or buffer zones objectives.
Activity 3.5.7	Collaborate with IUCN and other relevant organizations to collect and disseminate educational tools and materials for adaptation and use in the promotion of protected areas as an important means of achieving the conservation and sustainable use of biodiversity.	Collaborate with IUCN and other relevant organizations to collect and disseminate educational tools and materials for adaptation and use in the promotion of PCAs and their ecological networks, ecological corridors, and/or buffer zones as an important means of achieving the conservation and sustainable use of biodiversity.
Activity 3.5.8	Establish, in collaboration with the IUCN and other relevant partners, an initiative to engage the global news and entertainment industry (television, film, popular music, internet, etc.) in a global campaign to raise awareness of the consequences of biological diversity loss and the important role of protected areas in biodiversity conservation.	Establish, in collaboration with the IUCN and other relevant partners, an initiative to engage the global news and entertainment industry (television, film, popular music, internet, etc.) in a global campaign to raise awareness of the consequences of biological diversity loss and the important role of PCAs and their ecological networks, ecological corridors, and/or buffer zones in biodiversity conservation.
	REGARDING "PROGRAMME ELEMENT 4: Standards, assessment, and monitoring"	
Goal 4.1	To develop and adopt minimum standards and best practices for national and regional protected area systems	To develop and adopt minimum standards and best practices for national and regional systems of PCAs and their ecological networks, ecological corridors, and/or buffer zones.
Target 4.1	By 2008, standards, criteria, and best practices for planning, selecting, establishing, managing and governance of national and regional systems of protected areas are developed and adopted.	By 2030, standards, criteria, and best practices for planning, selecting, establishing, administering, managing, and governing national and regional systems of PCAs and their ecological networks, ecological corridors, and/or buffer zones are further refined and adopted.
Activity 4.1.3	Draw upon monitoring results to adapt and improve protected area management based on the ecosystem approach.	Draw upon monitoring results to adapt and improve PCAs and their ecological networks, ecological corridors, and/or

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		buffer zones management based on the ecosystem approach.
Activity 4.1.4	In collaboration with the key partners and based upon the best practices promote available guidance for parties minimum standards for planning, selecting, establishing, managing and governance of protected area sites and systems.	In collaboration with key partners and parties, establish and promote a recommended framework [register?] of internationally acknowledged norms and minimum standards for selection, establishment, planning, management, administration and governance of PCAs and PCA systems and their ecological networks, ecological corridors, and/or buffer zones. Develop and disseminate guidance and case studies on appropriate adaptation and adoption of the framework.
Activity 4.1.5	Compile information on best practices and case-studies on effective management of protected areas and disseminate it through clearing-house mechanism and facilitate exchange of information.	Compile information on best practices and case-studies on effective management of PCAs and their ecological networks, ecological corridors, and/or buffer zones and disseminate it through clearing-house mechanism and facilitate exchange of information.
Goal 4.2	To evaluate and improve the effectiveness of protected areas management	To evaluate and improve the effectiveness of PCAs management and their ecological networks, ecological corridors, and/or buffer zones
Target 4.2	By 2010, frameworks for monitoring, evaluating and reporting protected areas management effectiveness at sites, national and regional systems, and transboundary protected area levels adopted and implemented by Parties	By 2027, updated operational framework and methodologies for monitoring, evaluating and reporting PCAs management effectiveness and their ecological networks, ecological corridors, and/or buffer zones at all levels (sites, national and regional systems, and transboundary PCAs) are adopted and implemented by Parties, in collaboration with relevant partners
Activity 4.2.1	Develop and adopt, by 2006, appropriate methods, standards, criteria and indicators for evaluating the effectiveness of protected area management and governance, and set up a related database, taking into account the IUCN-WCPA framework for evaluating management effectiveness, and other relevant methodologies, which should be adapted to local conditions.	Establish, by 2026, national effectiveness monitoring systems for biodiversity, ecosystem integrity, governance, and ecological connectivity, taking into account the IUCN WCPA frameworks (e.g., Global Standard for Protected and Conserved Areas, (v2.0 in development), METT4, World Heritage Outlook) for evaluating management effectiveness, and other relevant methodologies. Measures of effectiveness should be values-focussed, primarily outcome-oriented and adapted to local conditions. Enable seamless information flow from site-based data collection to PCA effectiveness

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		assessments at subnational, national, and global levels.
Activity 4.2.2	Implement management effectiveness evaluations of at least 30 percent of each Partys protected areas by 2010 and of national protected area systems and, as appropriate, ecological networks.	Implement management effectiveness evaluations of at least 30 percent of each Party's PCAs by 2030 and of national PCA systems and, as appropriate, their ecological networks, ecological corridors, and/or buffer zones.
Activity 4.2.6	In cooperation with IUCN-WCPA and other relevant organizations, compile and disseminate information on best practices in protected area design, establishment and management.	In cooperation with IUCN WCPA and other relevant organizations, compile and disseminate information on best practices in PCA and their ecological networks, ecological corridors, and/or buffer zones design, establishment and management and effectiveness evaluation.
Goal 4.3	To assess and monitor protected area status and trends	To assess, monitor and evaluate biodiversity status and trends in PCAs and their ecological networks, ecological corridors, and/or buffer zones.
Target 4.3	By 2010, national and regional systems are established to enable effective monitoring of protected-area coverage, status and trends at national, regional and global scales, and to assist in evaluating progress in meeting global biodiversity Targets.	By 2028, national and regional systems are established to enable effective monitoring of coverage of PCAs and their ecological networks, ecological corridors, and/or buffer zones, biodiversity status and trends at national, regional and global scales, and to assist in evaluating progress in meeting KMGBF Target 3 and other targets.
Activity 4.3.1	Implement national and regional programmes to monitor and assess the status and trends of biodiversity within protected area systems and sites.	Implement national and regional programmes to monitor, assess, and report on the status and trends of biodiversity within PCA systems and their ecological networks, ecological corridors, and/or buffer zones, ensuring integration of relevant datasets used for reporting to other MEAs and alignment where possible with indicators identified for the KMGBF 2030 targets and 2050 goals on outcomes for species and ecosystems.
Activity 4.3.2	Measure progress towards achieving protected area Targets based on periodic monitoring and report on progress towards these Targets in future national reports under the Convention on Biological Diversity as well as in a thematic report at COP-9.	Implement national and regional programmes to monitor, assess, and report on the status and trends of biodiversity within PCA systems and their ecological networks, ecological corridors, and/or buffer zones, ensuring integration of relevant datasets used for reporting to other MEAs and alignment where possible with indicators identified for the KMGBF 2030 targets and 2050 goals on outcomes for species and ecosystems.

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Activity 4.3.3	Improve and update national and regional databases on protected areas and consolidate the World Database on Protected Areas as key support mechanisms in the assessment and monitoring of protected area status and trends.	Improve and update national and regional databases on PCAs and consolidate the World Database on Protected and Conserved Areas as key support mechanisms in the assessment and monitoring of PCAs and their ecological networks, ecological corridors, and/or buffer zones status and trends.
Activity 4.3.4	Participate in the World Database on Protected Areas maintained by UNEP-WCMC, and the United Nations List of Protected Areas and the State of the World Protected Areas assessment process.	Participate in the World Database on Protected and Conserved Areas and the World Database on Protected Area Management Effectiveness maintained by UNEP-WCMC. Include data on effectiveness of PCAs and their ecological networks, ecological corridors, and/or buffer zones as per UNEP-WCMC guidance wherever possible.
Activity 4.3.5	Encourage the establishment and establishment use of new technologies including geographic information system and remote sensing tools for monitoring protected areas.	Encourage the establishment, use and integration of new technologies including automated site-based data collection and processing, geographic information systems and remote sensing tools for monitoring PCAs and their ecological networks, ecological corridors, and/or buffer zones.
Activity 4.3.8	Prepare an updated format for the thematic report on protected areas covering, inter alia, integration of protected areas and national systems of protected areas into relevant sectors and spatial planning taking into account decision VII/25 on national reporting.	Prepare an updated format for the thematic report on PCAs covering, inter alia, integration of PCAs and national systems of PCAs and their ecological networks, ecological corridors, and/or buffer zones into relevant sectors and spatial planning taking into account decisions 15/6 and 16/32 on national reporting, Target 1 on spatial planning, and Target 3 on PCAs integrated into wider landscapes, seascapes and the ocean.
Goal 4.4	To ensure that scientific knowledge contributes to the establishment and effectiveness of protected areas and protected area Systems	To ensure that scientific knowledge contributes to the establishment and effectiveness of PCAs and PCA systems and their ecological networks, ecological corridors, and/or buffer zones
Target 4.4	Scientific knowledge relevant to protected areas is further developed as a contribution to their establishment, effectiveness, and management.	By 2027, scientific knowledge relevant to PCAs and their ecological networks, ecological corridors, and/or buffer zones is further developed as a contribution to their establishment, effectiveness, and management.
Activity 4.4.1	Improve research, scientific and technical cooperation related to	Improve research, scientific and technical cooperation related to PCAs and their ecological networks, ecological corridors,

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	protected areas at national, regional and international levels.	and/or buffer zones at national, regional and international levels.
Activity 4.4.2	Promote interdisciplinary research, to improve understanding of the ecological social and economic aspects of protected areas, including methods and techniques for valuation of goods and services from protected areas	Promote interdisciplinary research, to improve understanding of the ecological social and economic aspects of PCAs and their ecological networks, ecological corridors, and/or buffer zones, including methods and techniques for valuation of goods and services from PCAs and their ecological networks, ecological corridors, and/or buffer zones, taking account multiple values and diverse conceptualisations of PCA benefits and costs.
Activity 4.4.4	Encourage collaborative research between scientists and indigenous and local communities in accordance with Article 8(j) in connection with the establishment and the effective management of protected areas	Encourage collaborative research between scientists and indigenous and local communities in accordance with Article 8(j) in connection with the establishment or recognition and the effective management of PCAs and their ecological networks, ecological corridors, and/or buffer zones.
Activity 4.4.5	Promote the dissemination of scientific information from and on protected areas including through the clearing-house mechanism.	Promote the dissemination of scientific information from and on PCAs and their ecological networks, ecological corridors, and/or buffer zones including through the clearing-house mechanism.
Activity 4.4.6	Promote the dissemination of, and facilitate access to, scientific and technical information, in particular publications on protected areas, with special attention to the needs of developing countries and countries with economies in transition, in particular least developed countries and small island developing States.	Promote the dissemination of, and facilitate access to, scientific and technical information, in particular publications on PCAs and their ecological networks, ecological corridors, and/or buffer zones, with special attention to the needs of developing countries and countries with economies in transition, in particular least developed countries and small island developing States.
Activity 4.4.7	Develop and strengthen working partnerships with appropriate organizations and institutions which undertake research studies leading to an improved understanding of biodiversity in protected areas.	Develop and strengthen working partnerships with appropriate organizations and institutions which undertake research studies leading to an improved understanding of biodiversity in PCAs and their ecological networks, ecological corridors, and/or buffer zones.