CONNECTING NATURE TO SUSTAIN LIFE

GPEC
GLOBAL PARTNERSHIP ON ECOLOGICAL CONNECTIVITY

Ecological connectivity is one of the most effective pathways to halt and reverse biodiversity loss, increase resilience to climate change and reverse land degradation to safeguard the delivery of ecosystem services and secure a sustainable future for all.

A GUIDE TO ACTION

STRONGER CONNECTIVITY | HEALTHIER ECOSYSTEMS | A MORE SUSTAINABLE FUTURE

National and Sub-national Governments

- **Embed** Connectivity into National Commitments
- **Develop** or Strengthen National Legislation on Connectivity
- **Mainstream** Ecological Connectivity into National Development Planning and Policy
- **Strengthen** Transboundary and Cross-Sectoral Collaboration
- **Scale Up** Connectivity in Spatial Planning
- **Invest** in Connectivity Conservation and Restoration
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- **Promote** Ecological Connectivity Friendly Products

Conservation and Social Development NGOs and Academic and Research Institutes

- **Provide** Technical and Scientific Support
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- **Engage** Stakeholders
- Increasing awareness of the importance of Ecological Connectivity

CONNECTING PEOPLE • NATURE • LIVELIHOODS

There is overwhelming evidence that we have reached a critical turning point, where our actions will determine the future health and resilience of all life on Earth.

We are facing a planetary crisis that threatens our ecosystems, economies and shared future. Biodiversity loss, climate change and land degradation are interconnected consequences of a fragmented planet which are accelerating faster than our collective response.

The increasing fragmentation of terrestrial, inland waters[1] and coastal[2] and marine ecosystems across the world disrupts the movement of species, limits genetic exchange and weakens the ability of ecosystems to adapt to environmental stressors, including climate impacts. It also inhibits essential ecological processes such as pollination, seed dispersal, water regulation and nutrient cycling. Smaller, isolated ecosystem patches are less stable, productive and able to support both nature and humans. Addressing this challenge requires a unified response, one that recognises connected land- and seascapes as fundamental to achieving our common global objective of a thriving planet.

Transitioning towards a more connected planet is not only an environmental priority but also an economic and social one, given its role in supporting human livelihoods and food security, enhancing climate change resilience and disaster risk reduction and through the benefits connected nature provides for human health and well-being. Maintaining, enhancing and restoring ecological connectivity offers a practical solution to simultaneously advance biodiversity conservation, climate change resilience and the provision of the ecosystem services on which humans depend.

While significant action is already taking place across the globe, there is an urgent need to shift from fragmented to coordinated actions that respond to the crisis through collective and integrated solutions. The Global Partnership on Ecological Connectivity (GPEC) is a multistakeholder network of organisations, providing a collaborative platform for strengthening coherent and collective action to maintain, enhance and restore ecological connectivity.

> **Ecological connectivity is defined 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***

Recognising that achieving a thriving planet for all requires strong political will, collective ambition, coordinated action and strategic investment that recognises ecological connectivity as fundamental to all life on Earth, the Global Partnership on Ecological Connectivity encourages governments, civil society, the private sector and other key actors to contribute to a healthy and connected planet through the voluntary sector-specific actions outlined in this guide to action.

National and Sub-national Governments play a central role in recognising ecological connectivity as a key component of implementation across the Rio Conventions and other international environmental commitments, including the Convention on Migratory Species, and can support coordinated action to:

1. Embed Connectivity into National Commitments

1.1 Integrate ecological connectivity into National Biodiversity Strategies and Action Plans (NBSAPs), Land Degradation Neutrality (LDN) targets and Nationally Determined Contributions and Adaptation Plans (NDCs/NAPs).

1.2 Integrate connectivity considerations into species action and recovery plans, climate mitigation and adaptation strategies, marine spatial planning, disaster risk reduction, and sustainable development plans.

2. Develop or Strengthen National Legislation on Connectivity

2.1 Adopt legislation that recognises and designates terrestrial, inland water (especially wetlands), and coastal and marine ecological corridors and networks[3], and require them to be managed in ways that allows the movement

[1] Aquatic-influenced environments located within land boundaries and can be fresh, saline or a mix of the two (brackish water). They include lakes, rivers, ponds, streams, groundwater, springs, cave waters and floodplains, as well as bogs, marshes and swamps, which are traditionally grouped as inland wetlands.

[2] Intertidal wetlands and ecologically associated habitats including intertidal flats, seagrass beds, mangroves, bivalve (shellfish) reefs and associated coastal (littoral) habitats ecologically linked to these areas.

[3] IUCN Guidelines for conserving connectivity through ecological networks and corridors *(Hilty et al.,* 2020) Definition: *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.*

of species and ecological processes under a changing climate (for example, through careful land- and seascape-use planning and zoning, including coastal zone planning, that safeguards connectivity through designated ecological corridors).

3. Mainstream Ecological Connectivity into National Development Planning and Policy

3.1 Enshrine connectivity as a binding principle in national planning and policy.

3.2 Require infrastructure, agriculture, fishery, energy, urban and other development projects to incorporate ecological connectivity and nature-positive design in their developments, avoiding the disruption of ecological corridors and the fragmentation of habitats.

3.3 Adopt practices that maintain, enhance and restore connectivity across terrestrial, inland waters and marine and coastal ecosystems.

3.4 Develop and implement policies and plans that promote and adequately fund effective safeguards for ecological connectivity in infrastructure projects, especially linear infrastructure projects such as the development of roads, railways, hydropower plants, canals, transmission lines and pipelines.

3.5 Apply the mitigation hierarchy, with a strong emphasis on avoidance, to achieve the best possible safeguards for ecological connectivity. Where avoidance is not possible, safeguard connectivity by ensuring that practical, proven strategies and techniques (e.g. wildlife crossings) are implemented to reduce direct wildlife mortality and the impacts of fragmentation caused by linear and other barriers to ecological connectivity.

3.6 Incorporate ecological connectivity into environmental, social and governance (ESG) frameworks, risk assessments and disclosure mechanisms to improve transparency and accountability.

3.7 Identify, recognise, report and support the establishment of protected areas and other effective area-based conservation measures (OECMs) with the specific function of connecting pre-existing protected areas.

4. Strengthen Transboundary and Cross-Sectoral Collaboration

4.1 Strengthen regional agreements and cooperative frameworks to manage shared ecosystems for ecological connectivity.

4.2 Align infrastructure, agriculture, energy, urban and other sectors' development planning with ecological connectivity needs.

5. Scale Up Connectivity in Spatial Planning

5.1 Work collaboratively with scientific and conservation actors, as well as Indigenous people and local communities, to undertake participatory processes for the identification and designation of existing and potential ecological networks and corridors.

5.2 Establish new networks and corridors, and integrate identified terrestrial, wetland, and blue networks and corridors into national, regional and local spatial planning processes, ensuring planning decisions enhance and do not impede ecological connectivity.

5.3 Move beyond the design, designation and establishment of isolated protected areas towards well-connected, resilient and coherent ecological networks, which include transboundary corridors, transnational flyways and swimways, Indigenous and community-conserved areas and other effective conservation measures, among others.

6. Invest in Connectivity Conservation and Restoration

6.1 Increase financial flows for ecological connectivity conservation and restoration.

6.2 Direct conservation and restoration efforts strategically, for example in terrestrial, inland water, and coastal and marine ecological corridors and flyways and swimways, to connect and/or reconnect fragmented habitats.

6.3 Recognise the maintenance, enhancement and restoration of ecological connectivity as an essential **nature-based solution** that secures long-term ecological function and builds climate resilience for nature and people.

6.4 Include connectivity conservation and restoration across national budget allocations as a cross-cutting priority.

7. Redirect Harmful Subsidies and Incentives

7.1 Phase out and/or reform policies and subsidies that drive habitat fragmentation.

7.2 Incentivise maintaining, enhancing and restoring ecological connectivity though economic subsidies, fiscal benefits, recognition or other measures and land and marine use practices.

The Agriculture, Extractive, Fishery, Forestry, Energy and Other Sectors can contribute to maintaining, enhancing and restoring ecological connectivity across the areas of land, inland waters and coastal marine ecosystems they manage. These sectors have an important opportunity to reduce fragmentation, maintain ecological processes and facilitate the movement of wild species through targeted actions such as:

1. Integrating Ecological Connectivity Considerations into Core Operations

1.1 Use available tools to map and understand critical habitats, wildlife movements, terrestrial, inland water, coastal and marine ecological corridors, flyways and swimways occurring within the company sphere of operation, and dedicate portions of the area specifically for maintaining, enhancing or restoring ecological connectivity.

1.2 Integrate ecological connectivity into operational decisions from the beginning, including linking monitoring and performance indicators to connectivity outcomes and ensuring environmental risk assessments factor in fragmentation costs.

2. Managing for Ecological Connectivity

2.1 Maintain, enhance or restore natural terrestrial, inland water, coastal and marine ecological corridors, flyways and swimways within operational areas that support and allow for the movement of wildlife and ecological processes.

2.2 Collaborate with neighbouring operators, communities, governments and other stakeholders to maximise ecological connectivity at a larger land- (including inland waters), and seascape scale.

2.3 Pay special attention to gallery forests flanking water bodies (i.e. riparian zones). Take into account that natural ecological corridors may vary in size, for example large corridors may be needed to reconnect extensive but fragmented natural areas, while smaller features such as hedgerows and strips of native vegetation can also play an important role in supporting pollinator connectivity.

2.4 Pay special attention to critical areas essential for migratory species, aggregating or dispersing species, including breeding, nesting, feeding, resting and developmental habitats, which may not be connected physically but are connected ecologically, such as along flyways or facilitated species movements, larval dispersal and ocean currents, for example.

2.5 Prohibit the illegal taking, disturbance or unsustainable use of native wildlife within operational areas and promote coexistence between wildlife, production and personnel by allowing species to pass through the property in a manner that does not negatively affect operations, for example maintaining vegetated buffer zones within the operational area.

2.6 Avoid, where possible, installing physical barriers that prevent or restrict species movement, for example linear infrastructure, such as fences, railways, energy installations and roads and other barriers, such as vessel disturbance or underwater noise in marine ecosystems. Avoid dams and dikes or any other structure or activity, such as water abstraction, that prevents or limits water flow within operational areas. However, in cases where human-wildlife conflicts pose significant risks to livelihoods or safety, then mitigation measures should be carefully evaluated and implemented such as compensation schemes, the use of targeted physical barriers or other solutions as deemed appropriate. In instances where such infrastructure or actions are unavoidable, ensure their placement and management minimises their impact on ecological connectivity.

3. Restoring and Recovering Ecosystems where Operations are No Longer Active

3.1 Manage the rehabilitation of ecosystems following the cessation of activities, such as mines, decommissioned offshore wind farms and marine oil and gas pipes, using local species and natural patterns to recreate functional habitats.

3.2 Where feasible, consider progressively restoring and reconnecting natural habitats during ongoing operations when specific areas are no longer in use.

The **Infrastructure Sector** can play a key role in maintaining, enhancing and restoring ecological connectivity, by minimising the potential negative impacts infrastructure development can have on landscapes, inland waters and coastal and marine ecosystem connectivity through the following actions:

1. Safeguarding Ecological Connectivity

1.1 Develop and implement policies and plans that promote and adequately fund effective safeguards for ecological connectivity in infrastructure development projects, including cumulative impacts along entire migration routes.

1.2 Align infrastructure planning with ongoing conservation planning in the region and across borders by integrating ecological corridors into spatial planning and infrastructure development. For example, by integrating watershed connectivity from source to sea, and incorporating green and blue infrastructure (forests, hedgerows, riparian buffers) into designs.

1.3 Include biodiversity and ecosystem connectivity in Environmental Impact Assessments, taking into account cumulative impacts across the range of migratory populations.

1.4 Adopt practical and proven science-based mitigation strategies and techniques that effectively protect ecological connectivity and reduce the direct mortality of wildlife caused by roads, railways, canals, shipping lanes, energy infrastructure and other causes.

2. Applying the Mitigation Hierarchy

2.1 At the planning and design stage:

i. **Avoid:** As a first principle, avoid placing infrastructure and activities negatively impacting ecological connectivity in or near key migration routes, biodiversity hotspots, protected and conserved areas, and identified ecological corridors.

ii. **Minimise:** If full avoidance is not possible, minimise impacts by redesigning infrastructure or modifying activities to reduce the intensity of disturbance and to maintain movements (e.g. include wildlife crossings, fish passages, etc.).

2.2 At the operational phase:

iii. **Mitigate:** If avoidance and minimal impact measures cannot be addressed at the planning stage, or infrastructure already exists, mitigate the negative impacts through active mitigation measures and good practices (see number 3 below).

iv. **Restore:** Prioritise ecological connectivity objectives in the restoration of fragmented ecosystems and repair and rehabilitate ecosystems disturbed by operations within or adjacent to impacted areas.

v. **Compensate (offset):** As a last resort, offset or provide compensation for residual damage to maintain, enhance and/or restore ecological connectivity in equivalent habitats elsewhere.

3. Adopting Science-based Mitigation Strategies

3.1 Adopt practical and proven science-based mitigation strategies and techniques that effectively maintain, enhance and restore ecological connectivity and reduce the direct and indirect mortality of wildlife caused by physical barriers. For example, construct wildlife crossings (overpasses and underpasses) on roads, railways and canals; design culverts and bridges that allow aquatic species movement and ensure dams and hydropower projects include fish passage systems; retrofit nature-safe designs to power transmission lines; and mitigate activities within blue corridors that impede species movement.

3.2 Remove obsolete infrastructure, for example river barriers, that no longer serve their original purpose.

The **Financial Sector** can act as a key enabler for the maintenance, enhancement and restoration of ecological connectivity by directing investment, financing and financial decision-making towards actions that support connected and resilient ecosystems, such as:

1. Increasing Finance for Ecological Connectivity

1.1 Avoid financing projects that negatively affect ecological connectivity and ensure inclusion of connectivity mitigation measures (e.g. wildlife crossings, nature safe energy infrastructure, etc.) in project budgets where needed.

1.2 Promote green financial products and incentives that encourage beneficiaries to implement measures that strengthen ecological connectivity, particularly those that promote long term investment.

1.3 Develop connectivity-related investment products such as blue and green bonds linked specifically to improved ecological connectivity.

1.4 Establish and/or support the development of emerging market systems, such as payments for ecosystem services, that assign an economic value to verified maintenance, enhancement and/or restoration of ecological connectivity.

2. Promoting Ecological Connectivity as a Nature-based Solution in Climate Change Financing and Private Sector Investment

2.1 Recognise - by increasing climate financing opportunities and promoting private sector investment for connectivity conservation - ecological connectivity as a well-grounded and science-based nature-based solution that addresses critical social, economic and environmental challenges, including climate change, effectively and adaptively, while simultaneously providing human well-being, ecosystem services, resilience and biodiversity benefits.

2.2 Acknowledge - through increased climate financing opportunities and the promotion of private sector investment for connectivity conservation - the key role ecological connectivity plays in climate change mitigation and adaptation.

3. Integrating Connectivity into Financial Compliance

3.1 Incorporate ecological connectivity into lending and investment decision risk and performance management frameworks, for example ensuring connectivity is explicitly considered in the International Finance Corporation's (IFC) Performance Standard 6 and in the Taskforce on Nature-related Financial Disclosures (TNFD).

4. Measuring Investment Impact on Ecological Connectivity

4.1 Ensure financed projects include metrics to measure, assess and disclose impacts of investments on ecological connectivity.

Manufacturing and Retail Industries can play a key role in promoting the maintenance, enhancement and restoration of ecological connectivity across supply chains and retail initiatives, through actions such as:

1. Reducing Biodiversity Risks Across Supply and Value Chains

1.1 Assess biodiversity risks across supply and value chains, taking into account cumulative impacts, and prioritise actions to reduce these using available tools such as the Risk Filter Suite, to improve business resilience and sustainability through more informed strategies and investment decisions.

2. Encouraging Ecological Connectivity Compliance

2.1 Require suppliers to comply with measures related to the conservation of ecological connectivity by commercial land users in the agricultural, forestry, extractive, energy and other sectors.

2.2 Consider including ecosystem fragmentation metrics in ESG reporting.

3. Incentivising Good Practices

3.1 Prioritise suppliers that support ecological connectivity and actively avoid sourcing from suppliers that fragment habitats or disrupt ecosystems.

3.2 Offer premium payments and/or long term purchase commitments to suppliers who comply with such measures.

4. Promoting Ecological Connectivity Friendly Products

4.1 Phase out products tied to deforestation, overfishing, intensive agriculture, habitat loss or other causes of fragmentation in the retail industry.

4.2 Seek support from conservation organizations to develop wildlife and ecological connectivity friendly products across the supply chain.

4.3 Elevate wildlife and ecological connectivity friendly products through the active promotion of the products across the retail industry.

Conservation and Social Development NGOs and Academic and Research Institutes can make an important contribution to scaling up maintaining, enhancing and restoring ecological connectivity by supporting knowledge generation, innovation, capacity building and can support practical action, including through:

1. Providing Technical and Scientific Support

1.1 Support the identification of ecological connectivity, networks, corridors, flyways and swimways by providing the best available science, technology and data.

1.2 Recognise complementary assessment processes, such as those for Protected Areas, Other Effective Area Based Conservation Measures (OECMs), Key Biodiversity Areas (KBAs), Ecologically or Biologically Significant Marine Areas (EBSAs), Important Marine Mammal Areas (IMMAs) Important

Shark and Ray Areas (ESRAs) and Important Marine Turtle Areas (IMTAs), as well as recognised networks of sites of international importance for migratory species, including flyway site networks, which can support the identification of terrestrial, freshwater and marine ecological corridors, flyways and swimways.

1.3 Prioritise, share knowledge and strengthen capacity for conservation or sustainable development actions in identified terrestrial, freshwater and marine ecological networks and corridors, flyways and swimways.

2. Enhancing Knowledge on Ecological Connectivity

2.1 Provide new knowledge to understand the importance of ecological connectivity to biodiversity conservation and ecosystem services.

2.2 Develop innovative approaches to safeguard ecological connectivity.

3. Engaging Stakeholders

3.1 Support planning, stakeholder mapping and engagement to achieve integrated land, river and seascape approaches that minimise cumulative impacts.

3.2 Recognise the vital role of Indigenous Peoples and local communities as stewards of connected land, river and seascapes.

3.3 Recognise and secure the rights, territories and governance systems of Indigenous Peoples and Local Communities, ensuring their full and effective participation and leadership in the identification, designation, governance and management of ecological corridors and networks.

3.4 Respect and integrate Indigenous and local knowledge systems, alongside scientific approaches, to guide the design, restoration and monitoring of ecological connectivity.

3.5 Ensure Free, Prior and Informed Consent (FPIC) in all actions affecting Indigenous Peoples and Local Communities and support equitable benefit-sharing mechanisms linked to connectivity conservation and restoration.

3.6 Support practical cooperation among local governments, communities, site managers and civil society organisations across ecologically connected sites, including through site-to-site partnerships, knowledge exchange and other collaborative mechanisms that strengthen conservation along ecological corridors, flyways and swimways.

4. Increasing Awareness of the Importance of Ecological Connectivity

4.1 Strengthen awareness and advance knowledge and education about the importance of ecological connectivity for nature and human development among public and private actors in their areas of influence.

USEFUL RESOURCES

2025: Legislative Guidance for Maintaining, Improving, and Restoring Ecological Connectivity. (CMS)
2024: Global Land Outlook Thematic Report Ecological Connectivity an Essential Component in Ecosystem Restoration. (UNCCD & CMS)
Handbook to Mitigate Road and Rail Impacts on Asian Elephants. (AsETWG IUCN)
Systematic Conservation Planning with Connectivity. (CMS &CLLC)
Guidelines for Connectivity Planning in Europe. (NaturaConnect Project)
2023: Guidelines for Conserving Connectivity (IUCN WCPA CCSG)
Ecological Connectivity and Nature-Based Solutions in the Carpathian Region (UNEP &IIED)
2022: Protecting Blue Corridors Report (WWF)
2021: Marine Conservation Connectivity Rules of Thumb for MPA Network Design. (IUCN WCPA CCSG)
Global guidelines for peatland rewetting and restoration. Ramsar Technical Report 11 (Convention on Wetlands)
2018: Implementing environmental flows with benefits for society and different wetland ecosystems in river systems. Ramsar Policy Brief 4. (Convention on Wetlands)
2015: Guidelines for Addressing Linear Infrastructure in Central Asia. (CMS)
2012: Determination and implementation of environmental water requirements for estuaries. Ramsar Technical Report 9. (Convention on Wetlands)

The cross-cutting importance of ecological connectivity has been increasingly recognised and incorporated into a range of global commitments.

Convention on Migratory Species (CMS)

The Convention on Migratory Species is the primary intergovernmental framework for cooperative efforts on the issue of ecological connectivity given its importance for migratory species. CMS has long been a global leader in championing ecological connectivity, including it as a central element of numerous resolutions, decisions, programmes of work, action plans and other instruments.

The Convention has taken a number of steps to enhance understanding and delivery in this area from recognising the role of ecological networks for migratory species (Resolution 10.3) to its more recent resolution on *Ecological Connectivity* (Resolution 14.16(Rev.COP15) which provides the leading definition for ecological connectivity and reaffirms a strong mandate on issues related to connectivity. In addition to the Resolution on *Ecological Connectivity*, Parties to the Convention also adopted the *Samarkand Strategic Plan for Migratory Species* – which envisions that by 2032, migratory species will thrive in fully restored and connected habitats.

At its most recent 15th Conference of the Parties (COP15) in Campo Grande (Brazil), ecological connectivity was highlighted as a crucial pillar of the Convention under its theme "Connecting Nature to Sustain Life". Its importance was reaffirmed at the High-level Segment with President of Brazil Luiz Inácio Lula da Silva echoing this notion and adopting, along with 20 other Parties to CMS, the *Pantanal Declaration*. This declaration highlights the need for maintaining, enhancing and restoring ecological connectivity across terrestrial, freshwater and marine ecosystems and encourages the inclusion of specific measures for the protection of migratory species and their habitats.

Convention on Biological Diversity (CBD)

In 2022, CBD Parties adopted the *Kunming-Montreal Global Biodiversity Framework*. Recognising the fundamental importance of ecological connectivity for healthy ecosystems and species, specific language on 'connectivity' was incorporated throughout its Goals and Targets. Specifically, explicit language on ecological connectivity is included in Goal A, as well as the Targets on restoration (Target 2), Protected and Conserved Areas (Target 3) and Green Spaces and Urban Planning (Target 12), and is further implicit in the Target on Spatial Planning (Target 1).

Ecological Connectivity in the Kunming-Montreal Global Biodiversity Framework

Goal A: The integrity, **connectivity** and resilience of all ecosystems are maintained, enhanced or restored, substantially increasing the area of natural ecosystems by 2050.

Target 2: Ensure that, by 2030, at least 30% of degraded areas of terrestrial, inland water, coastal and marine ecosystems are under effective restoration, in order to enhance biodiversity and ecosystem functions and services, ecological integrity and ***connectivity***.

Target 3: Ensure and enable that by 2030 at least 30 per cent of terrestrial and inland water areas, and of marine and coastal areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through ecologically representative, **well-connected** and equitably governed systems of protected areas and other effective area-based conservation measures, recognizing indigenous and traditional territories, where applicable, and integrated into wider landscapes, seascapes and the ocean, while ensuring that any sustainable use, where appropriate in such areas, is fully consistent with conservation outcomes, recognizing and respecting the rights of indigenous peoples and local communities, including over their traditional territories.

Target 12: Significantly increase the area and quality, and connectivity of, access to, and benefits from green and blue spaces in urban and densely populated areas sustainably, by mainstreaming the conservation and sustainable use of biodiversity, and ensure biodiversity-inclusive urban planning, enhancing native biodiversity, **ecological connectivity** and integrity, and improving human health and well-being and connection to nature, and contributing to inclusive and sustainable urbanization and to the provision of ecosystem functions and services.

United Nations Convention on Combating Desertification (UNCCD)

The 15th Conference of the Parties to the United Nations Convention to Combat Desertification (UNCCD) meeting in Abidjan (Côte d'Ivoire) in May 2022 adopted the *Land, Life and Legacy Declaration*. The declaration encourages Parties to "…avoid, reduce, and reverse land degradation by accelerating the implementation of existing national commitments to achieve land degradation neutrality by 2030, taking into account the connectivity of ecosystems". Furthering this commitment, in 2025, UNCCD and CMS launched a *Global Land Outlook Thematic Report on Ecological Connectivity and Land Restoration*, which examines the potential of enhanced ecological connectivity in promoting sustainable land management and restoration to address global environmental crises such as desertification, land degradation and drought (DLDD), as well as biodiversity loss and climate change.

Ecological connectivity serves as an implementation bridge across the Rio Conventions, contributing simultaneously to biodiversity conservation under the Convention on Biological Diversity (CBD), climate adaptation and resilience under the UN Framework Convention on Climate Change (UNFCCC), and land restoration and Land Degradation Neutrality under the UN Convention on Combating Desertification (UNCCD).

United Nations Framework Convention on Climate Change (UNFCC)

Over the years UNFCCC decisions have consistently and increasingly emphasized ecosystem integrity, nature-based solutions, and resilience as crucial elements for climate change mitigation and adaptation. The recent thematic focus of COP30 on forests, the Amazon and integrated land-use systems further reinforces the growing recognition within the UNFCCC that climate action must be implemented at land- , seascape and ecosystem scales.

It is now widely accepted that ecological connectivity is essential for building resilience to climate change by allowing species to adapt and move away from places where conditions are becoming less favourable and providing a more stable environment for important ecosystem processes and services. Ecological connectivity is also increasingly being recognised as an effective nature-based solution that can function to support Nationally Determined Contributions by maintaining, enhancing and restoring carbon stores and sinks, and National Adaptation plans, through its role in maintaining ecosystem functioning and building resilience for both people and biodiversity.

International Union for the Conservation of Nature World Conservation Congress (IUCN WCC)

The IUCN WCC held every four years, is the world's largest environmental and biodiversity summit, bringing together thousands of its members from governments, civil society, Indigenous Peoples' organizations, businesses and academia across the world. The IUCN Members' Assembly is the democratic voting body where over 1,500 state and non-state member organisations spanning more than 160 countries vote on motions that set global conservation policy and direct IUCN's mandate. IUCN WCC Resolutions are formal policy statements and directives adopted by the Members' Assembly at the WCC.

In 2020, a resolution on *Wildlife-friendly linear infrastructure* was adopted by the Assembly. The resolution addresses fragmentation via infrastructure, which is a key threat to ecological connectivity. In its most recent WCC, held in 2025, a Resolution for *Recognising and Reporting Ecological Corridors* was also adopted by the Assembly. This resolution calls on IUCN and its Members to increase efforts for standardising recognition, reporting and databases for ecological corridors, while ensuring alignment with the goals of the Kunming-Montreal Global Biodiversity Framework

The Convention on Wetlands

In July 2025, Parties to the Convention on Wetlands adopted the *Fifth Strategic Plan of the Convention on Wetlands 2025-2034* (Resolution XV.3). The Strategy recognises the importance of connected wetlands and includes ecological connectivity explicitly in "Goal 3: Wetlands of International Importance are recognized, effectively conserved and managed and, through designating sites that qualify, there is an increase in area, numbers, representivity and ecological connectivity across the network of Wetlands of International Importance."

United Nations General Assembly

On April 16, 2021, the United Nations General Assembly adopted Resolution 75/271 "Nature knows no borders: transboundary cooperation a key factor for biodiversity conservation, restoration and sustainable use." This resolution stresses the importance of connectivity "... in order to maintain healthy and intact ecosystems and habitats, which are needed to conserve biodiversity and to ensure that nature can continue to provide ecosystem services to people" and emphasizes the importance of cooperation in avoiding the fragmentation of habitats and "... to maintain and enhance connectivity between ecosystems.."

Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction (BBNJ Agreement)

After 20 years of negotiation in June 2023, the BBNJ Agreement was adopted by the Intergovernmental Conference on Marine Biodiversity of Areas Beyond National Jurisdiction convened under the auspices of the United Nations. This agreement is the first comprehensive cross-sectoral ocean treaty in decades and is an implementing agreement under the United Nations Convention on the Law of the Sea. Annex 1 of agreement sets out a number of criteria for identifying important areas, "ecological connectivity" is one of those criteria.

Ecological Corridors

An ecological corridor is defined as a clearly defined geographical space that is governed and managed over the long term to maintain or restore effective ecological connectivity *(Hilty et al., 2020).*

Corridors can be continuous or discontinues in the case of stepping stones and horizontal or vertical in the case of aquatic ecosystems. They may consist partly or entirely of natural areas managed primarily for connectivity.

Learning Platforms

Connectivity 101: Ecological Connectivity for People and Planet (Learning4Nature)
https://www.learningfornature.org/en/courses/connectivity-101-ecological-connectivity-for-people-and-planet/

A self-paced course teaching the basics of ecological connectivity conservation. The course presents general and replicable best practices for connectivity conservation and context-sensitive case studies worldwide. A certificate is awarded to those who complete the course. Currently, the course is offered in English only.

NaturaConnect Learning Platform (2026) https://tinyurl.com/ENA-NC

This self-paced training course developed by the NaturaConnect project offers a range of resources and training modules to enhance professional competences for planning and implementing the Trans-European Nature Network (TEN-N). Key connectivity-specific modules include Module 1.4. Connectivity Conservation covering core concepts and methods, and Module 3.3. Connectivity Analyses focusing on least-cost path and circuitscape models commonly used in conservation planning

The **Ecological Connectivity Challenge** is an initiative of the Global Partnership on Ecological Connectivity (GPEC) where all actors are encouraged to voluntarily commit to quantifiable targets in response to this Guide to Action.

Register your commitments and discover more information on our website.

Let's Connect!

The Global Partnership on Ecological Connectivity

The Global Partnership on Ecological Connectivity (GPEC) was launched at CMS COP14 in Samarkand, Uzbekistan. The purpose of GPEC is to provide a multistakeholder collaborative platform for collective and coherent action that maintains, enhances and restores ecological connectivity to support biodiversity and ecosystem services across the globe.

The partnership includes a Steering Committee and Collaborative Partners. The Steering Committee helps shape the strategic direction of the Partnership. Collaborative Partners are organizations, institutions or initiatives responsible for executing or contributing to specific areas of work or projects across the Partnership's four core areas: Data & Knowledge; Policy & Legislation; Uptake & Implementation and; Awareness & Outreach.

https://gpec-partnership.com/

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