

*ELEMENTS FOR NEW GOALS AND TARGETS*

# CONNECTIVITY AND THE POST-2020 BIODIVERSITY FRAMEWORK

Photo: Saiga Antelopes © Andrey Gilev and Karina Karenina

## CONNECTIVITY: WHAT IS IT?

Connectivity is a key part of ecological functions. Connectivity has been described as having four aspects:

- landscape connectivity as physical connection of natural vegetation;
- ecological connectivity as connectedness of ecological processes across multiple scales;
- habitat connectivity as connectedness between areas of suitable habitats for species; and
- evolutionary process connectivity, including the exchange of genetic material between populations.

Connectivity is essential not only for the survival of migratory species but also for the achievement of all three objectives of the Convention on Biological Diversity (CBD). The recent IPBES global assessment recognized the importance of connectivity for the post-2020 framework, and it is highly relevant for achieving the objectives of many other MEAs, such as the Ramsar Convention on Wetlands, the UN Convention to Combat Desertification and the World Heritage Convention.

## How to reflect connectivity in the new biodiversity framework

The current Strategic Plan for Biodiversity 2011-2020 and its Aichi Targets address connectivity *only in Aichi Target 11*, and *only in relation to protected areas*. Connectivity cannot be achieved simply by drawing a line between already established protected areas. Rather, area-based conservation measures should be designed in a manner that is mindful of the ecological functions that are supported by connectivity, including the needs of migratory species.

Connectivity could be effectively reflected in the new biodiversity framework by including the following elements:

1. A stand-alone target on connectivity or including connectivity in relevant goals and targets;
2. A commitment to international cooperation at the transboundary, regional and/or global levels;
3. Inclusion in NBSAPs of commitments for all biodiversity MEAs to which countries are a party;
4. Inclusion of connectivity as part of an “apex” or “priority” target.

## Option 1 - Modified Status Quo

Connectivity could be reflected in the Aichi Biodiversity Targets to which it contributes significantly, as well as in targets that have a major impact on it. Examples include the following:

**2 - Biodiversity values integrated.** Include connectivity in national and local development strategies, plans and processes;

**5 - Habitat loss and degradation.** Reduce the loss of natural habitats and of ecological connectivity;

**10 - Ecosystems vulnerable to climate change.** Maintain the integrity, functioning and connectivity of ecosystems;

**11 - Area-based measures.** Develop an ecological network of protected areas, other effective area-based conservation measures, and other areas of relevance;

**13 - Safeguarding genetic diversity.** Develop and implement connectivity-based strategies and measures for minimizing genetic erosion;

**17 - Biodiversity strategies and action plans.** Develop, adopt and implement policy instruments and actions including at transboundary, regional and/or international levels.

# CONNECTIVITY

## AND THE POST-2020 BIODIVERSITY FRAMEWORK

### Option 2 - New Goals and Targets

Connectivity could be reflected in new goals and targets. Examples include the following:

#### Biodiversity Goals (Status of Biodiversity)

**Healthy ecosystems and species populations.** Connectivity is important for safeguarding ecosystem functions and services, and protecting species by allowing animal movement, facilitating adaptation to environmental change, reducing human-wildlife conflicts and addressing threats created by barriers.

**Genetic diversity is maintained.** Habitat fragmentation causes genetic isolation and potential extinction of local populations. Connectivity promotes genetic diversity, which in turn supports species' and ecosystems' adaptability to changing conditions.

#### Address Biodiversity Loss (Targets)

**Conserving land.** When defining conservation strategies, connectivity is not only key to the identification and planning of networks of protected areas or other area-based management tools but also for assessing the functional need for ecological corridors connecting different sites.

**Prevent extinction of species.** Connectivity is essential for the survival and conservation status of migratory species, and connectivity conservation benefits ecosystems that support non-migratory species.

#### Enabling Action and Conditions

**Multi-level governance.** Connectivity conservation provides a means by which countries and stakeholders can agree on common goals and shared responsibilities, coordinating their actions and cooperating across boundaries and sectors, at the transboundary, regional and/or international levels.

#### Benefits from Biodiversity

**Sustainable agriculture.** Pollination, seed dispersal and pest regulation often depend on the movement of insect pollinators, birds, bats, as well as terrestrial species that move from natural habitats to adjacent agricultural land.

**Biodiversity provides for nature-based solutions.** Connectivity and nature-based solutions go hand in hand. Connectivity underpins many nature-based solutions, and fosters sustainable development by supporting the functioning of agriculture, forestry and fisheries, as well as recreational and cultural activities.



Photo: Manta Rays © Guy Stevens, Manta Trust

### About CMS

The Convention on the Conservation of Migratory Species of Wild Animals (CMS), also known as the Bonn Convention, works for the conservation of a wide array of endangered migratory animals worldwide through negotiation and implementation of agreements and species action plans. It has 128 Parties (as of 1 June 2019).

CMS engages all relevant stakeholders in addressing threats to migratory species in concert with all other aspects of wildlife conservation and management.

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