

# Water protection according to Convention on Biological Diversity (CBD) and Convention on Wetlands Protection (Ramsar convention)

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# Convention on Biological Diversity (CBD)

The Convention on Biological Diversity (CBD) entered into force on 29 December 1993.

## It has 3 main objectives:

- The conservation of biological diversity
- The sustainable use of the components of biological diversity
- The fair and equitable sharing of the benefits arising out of the utilization of genetic resources



# Convention on Biological Diversity (CBD)

**The vision is:** *"Living in Harmony with Nature" where „ By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.,„*

The new plan consists of **five strategic goals**, including twenty [Aichi Biodiversity Targets](#) (also for water protection, mainly **Target 14**).



**Strategic Goal A:** Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society

**Strategic Goal B:** Reduce the direct pressures on biodiversity and promote sustainable use

**Strategic Goal C:** To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity

**Strategic Goal D:** Enhance the benefits to all from biodiversity and ecosystem services

**Strategic Goal E:** Enhance implementation through participatory planning, knowledge management and capacity building

## Convention on Biological Diversity (CBD) and inland water

**Inland water ecosystems** are often extensively modified by humans, more so than marine or terrestrial systems, and are amongst the most threatened ecosystem types of all. Physical alteration, habitat loss and degradation, water withdrawal, overexploitation, pollution and the introduction of invasive alien species are the main threats to these ecosystems and their associated biological resources.

Inland waters include lakes, rivers, ponds, streams, groundwater, springs, cave waters, floodplains, as well as bogs, marshes and swamps, which are traditionally grouped as inland wetlands.

The CBD has adopted the Ramsar Convention's definition of "wetland." The Ramsar Convention takes a broad approach in determining the wetlands that come under its aegis.

Under the text of the Convention (Article 1.1), wetlands are defined as:

- **"Areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres."**

# Convention on Biological Diversity (CBD) and inland waters

“**Inland water ecosystems**” include land. From the ecological, hydrological, environmental and socio-economic perspective, all land is an integral part of an inland water ecosystem because fresh water (usually from rain) runs off it into rivers, lakes and wetlands.

“**Inland water habitat**” also includes land that is influenced directly by aquatic habitat. For example, the vegetation near water bodies (**in the riparian zone**), even if never submerged, is influenced greatly by proximity to water. The clearest example of land-water interactions is with seasonally flooded areas, e.g., **river floodplains**, which may be dry or submerged depending on flood conditions.

## Inland water biodiversity

Simply put, **it is biodiversity associated with inland waters**. But since all terrestrial animals and plants depend on fresh water, the boundaries between aquatic and terrestrial are blurred. At the species level, inland water biodiversity generally includes all life forms that depend upon inland water habitat for things other than simply drinking (or transpiration in plants). Besides the obvious life living within water itself (e.g., **fish**), this also includes many “terrestrial” species of animals (e.g., **waterbirds**), semi-aquatic animals (e.g. hippopotamus, crocodiles, **beaver**) and plants (e.g. **flooded forest**, mangroves, vegetation associated with the margins of water bodies). **The majority of amphibians**, for example, breed in fresh water.

- **As for all biodiversity, for inland waters the concept includes diversity at the species, genetic and ecosystem level.** Species which are restricted to inland waters (e.g., freshwater fish) cannot move easily between different areas. Inland waters are therefore characterized by high endemism of freshwater species – for example between different lakes or the upper reaches of sub-catchments of rivers, often even where located physically close to each other. **This is also reflected in high levels of genetic diversity.**
- **Most importantly, ecosystem diversity (including hydrological and physical diversity within the landscape) is an extremely important aspect of the biodiversity of inland waters.** This ecosystem diversity is very complex and includes both aquatic and terrestrial (landscape) influences; maintaining it is critical to maintaining [ecosystem services](#). Also, human interventions in the ecosystem tend to deliberately reduce this diversity (e.g., by modifying the form, and therefore function, of river channels and/or hydrology).

# Convention on Biological Diversity (CBD) and inland waters

## Ecosystem services of inland waters

- Water drinking supply – for human and species well-being
- Food security - the direct use of inland water biodiversity (e.g., for inland fisheries)
- Climate regulation, Flood mitigation, Nutrient recycling, Water purification and waste treatment

## What are the problems?

- **Threats to inland waters biodiversity** (diminishing areas of inland waters resources; habitat change, leading to the degradation and loss of inland water ecosystems and species = infrastructure development (such as dams, dikes, and levees) and land conversion; the clearing, transformation or drainage for agricultural development; aquaculture development, excessive nutrient loading, land-based activities from agriculture and human settlements generate pollution, land erosion (causing siltation) and nutrient runoff (causing eutrophication), rivers carry most land-based impacts into coastal areas and the oceans, thereby threatening other important ecosystems, the unsustainable use of water (competing demands placed on water), agriculture demands, over-harvesting of inland waters, the introduction of non-native invasive species, loss of genetic integrity
- **Impacts of climate change** (change of water levels, changes in storms, changes in river flow regimes and sediment transport, adverse consequences for wetland species, exacerbate impacts of other drivers of degradation of wetlands, incidence of vector-borne diseases, others.
- **Loss of wetlands** (continue to be lost, converted, or degraded even though benefits gained from maintaining them often are greater than the benefits associated with their conversion)

# Convention on Biological Diversity (CBD) and inland waters

## What needs to be done?

- To overcome those sectors/interests/activities that impact inland waters, to recognise that the sustainable use of inland water biodiversity is responsibility of several stakeholders.
- Good governance and institutions, and the political and legal mandates they provide, underpin the successful implementation of all response options.
- The effective management of inland waters will require improved arrangements for river (or lake or aquifer) basin–scale management. The [ecosystem approach](#) has been developed as an overall strategy for integrated environmental management promoting conservation and sustainable use in an equitable way.
- A major conceptual shift among policy-makers and decision-makers is required to ensure that cross-sectoral approaches that incorporate the principles of consultation and transparency, address trade-offs, and ensure the long-term future of the services provided and supported by inland waters are adopted and implemented effectively.
- **The drivers of loss of inland water biodiversity must be addressed.** A priority when making decisions that directly or indirectly influence inland waters is to ensure that the decisions are informed by consideration of the full range of benefits and values provided by different inland water ecosystem services. [Economic valuation](#) can provide a powerful tool for placing inland waters on the agendas of decision-makers.
- Where necessary, **awareness needs to be raised of the importance of inland waters and capacity developed to implement effective management.** Trade-off decisions regarding inland waters are inevitable and set to continue, if not increase: but these need to include consideration of the real values that these ecosystems provide and the critical importance of balancing the multiple services that water provides.

# Convention on Biological Diversity (CBD) and inland waters

## What needs to be done?

Several decisions of CBD on inland waters (IV/4, V/2, VI/2, VII/4, VIII/20, IX/19, X/8) were transferred into the global EU and National strategy and Action plan for biodiversity protection 2011 – 2020

- ***Slovak National Strategy and Action Plan 2011 – 2020***

**Goal C: Mainstreaming biodiversity and biodiversity protection** within the sectors of agriculture, forest management and aquaculture

**C.6 Ensure favourable conservation status of protection of water and water dependent habitats and species in line with the goal to achieve good environmental status of water ecosystems till 2020, while in area of development and regulation of aquaculture it is necessary to ensure such a form of water use, which will not have a negative impact on water species, habitats and ecosystems (7 main activities)**

## 4th Strategic Plan for Management of Wetlands 2016 – 204 according to the Ramsar convention

- **Programme for management of Wetlands in Slovakia till 2024** and **its Action Plan for wetlands 2019 – 2021** (approved by the Government in April 2019). **It consists of 65 activities, which contribute to 4 strategic goals (incl. 1 operational)** – goals and activities should contribute to better knowledge of wetlands, to their protection, restoration, to wise and sustainable use and to public awareness raising.

# Convention on Protection of Wetlands (Ramsar convention)

- **Convention on wetlands (*The Ramsar Convention on Wetlands*)** is one of the most important international conventions in nature, biodiversity and landscape protection. It is also the only convention, which is strictly focused on protection on certain habitat.
- At the beginning it was mainly focused on wetlands protection as an important habitat for water birds species, but later on it became important as an international tool for wetlands protection and sustainable use.
- It was initiated due to the alarming decrease of water birds species population related to the changes and degradation of wetlands.
- Convention on wetlands was signed in 1971 in Ramsar (Iran) and entered into force in 1975. Slovakia ratified this convention in 1990.
- Each Party is responsible to include at least 1 from its wetlands to the „*List of Wetlands of International Importance*“ – they have to fulfil international criteria from the view of ecology, botany, zoology, limnology and hydrology.
- **Slovak Republic has in the List 14 wetlands:**

**Parížske močiare, Šúr, Senné – rybníky, Dunajské luhy, Niva Moravy, Latorica, Alúvium Rudavy, Mokrade Turca, Poiplie, Mokrade Oravskej kotliny, Rieka Orava a jej prítoky, Domica, Tisa, Jaskyne Demänovskej doliny**



# Thank you

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