



Enhancing aquatic biodiversity conservation in the Danube River Basin

Current status of aquatic biodiversity

A high diversity of species and viable communities sustain ecosystem processes, increasing their resilience to global challenges and their capacity to deliver ecosystem services. The more diverse habitats and species, the more ecological benefits are provided, thus supporting human wellbeing.

Although **freshwater ecosystems play a crucial role** in supporting people and wildlife, they are among the most affected ecosystems worldwide due to unsustainable human activities: **a biodiversity decline of 84% has been recorded between 1970 – 2016**¹. In Europe, the migratory freshwater fish are most impacted, a decline of 93% being reported for this group². The European Environmental Agency highlights that only 15% of EU protected habitats are in good condition and freshwater fish have the highest proportion of bad conservation status (38%), mainly due to alteration of waterbodies (e.g., embankments), and hydropower installations (e.g. dams)³. Additionally, pollution, invasive alien species, land use and climate change are pressures that impair the resilience of ecosystems. Therefore, the IPBES concluded that biodiversity of aquatic ecosystems in Europe is seriously threatened⁴.

A new political and financial frame supporting environmental conservation

In December 2019, the **EU Green Deal**⁵ was launched aiming to reduce the impact of climate change and ensure zero CO₂-emissions by 2050 (according to the UN Paris agreement 2015)⁶. The program supports sustainable investments and aims to decouple economic growth from exploitation of natural resources, underlining the role of natural ecosystems and the fact that all EU policies should contribute to preserve and restore Europe's natural capital. In line with this goal, it introduces several connected strategies and measures, such as:

- **The Industrial Strategy**⁷ and **new Circular Economy Action Plan**⁸ addressing the challenges of green and digital transformation of EU economy, the decarbonization and modernization of energy-intensive industries (e.g., steel, chemicals and cement), and the increase of sustainability of resource-intensive sectors (e.g., textiles, construction).
- **The Farm to Fork Strategy**⁹ aiming to make food systems fair, healthy and environmentally-friendly, to reduce the use of pesticides and fertilizers in agriculture, and to decrease the adverse impacts of fishery on ecosystems, especially in sensitive areas.
- **The EU Biodiversity 2030 Strategy**¹⁰ declaring biodiversity loss and ecosystem collapse as critical threats of humankind. It aims to regain biodiversity until 2030 by, e.g., improving and widening the network of protected areas, restoring at least 25,000 km of rivers, and developing an EU Nature Restoration Plan. In addition, the Commission puts forward a proposal for legally binding EU nature restoration targets in 2021; Member States should enhance conservation of all protected habitats and species by 2030.
- **A zero-pollution action plan for air, water and soil** should be adopted by the Commission in 2021 to prevent further pollution and foster cleaning remedy. To ensure a toxic-free environment, the Commission will present a sustainable chemicals strategy.

¹ WWF, 2020. Living Planet Report: Bending the curve of biodiversity loss. Gland, Switzerland, 83 pp (p. 24).

² World Fish Migration Foundation, 2020. The Living Planet Index for migratory freshwater fish. Groningen, Netherlands, 30 pp.

³ European Environmental Agency, 2020. State of nature in the EU. Results from reporting under the nature directives 2013-2018, Copenhagen, Denmark, 146 pp.

⁴ IPBES, 2018. The IPBES regional assessment report on biodiversity and ecosystem services for Europe and Central Asia. Rounsevell, M., Fischer, M., Torre-Marín Rando, A. and Mader, A. (eds.). Secretariat of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, Bonn, Germany, 834 pp.

⁵ COM 640, 2019. Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions. The European Green Deal. Brussels, 11.12.2019.

⁶ [UNFCCC] United Nations Framework Convention on Climate Change, 2015. Paris Agreement. Available at https://unfccc.int/sites/default/files/english_paris_agreement.pdf

⁷ Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, A new Industrial Strategy for a globally competitive, green and digital Europe, COM (2020) 102 final

⁸ Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, A new Circular Economy Action Plan For a cleaner and more competitive Europe. COM (2020) 98 final

⁹ COM 381, 2020. Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions. A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system. Brussels, 20.05.2020

¹⁰ COM 380, 2020. Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions EU Biodiversity Strategy for 2030 Bringing nature back into our lives. Brussels, 20.05.2020

Unlike previous strategies, these new green policies are accompanied by strong financial programs to foster their implementation. The Multiannual Financial Framework (MFF 2021-2027) and the Next Generation EU have foreseen 30% of the 1.8 trillion Euro budget for measures addressing climate change, natural resources and environment. Moreover, the EU Green Deal Investment Plan¹¹ aims to use part of the MFF and mobilize additional funding to facilitate sustainable investments and the transition to a climate-neutral, green, competitive and inclusive economy over the next decade.

The River Basin Management Plan – a key instrument for the revival of aquatic biodiversity

The Water Framework Directive provides the needed tool to facilitate implementation of biodiversity restoration: the River Basin Management Plan (RBMP) is key to integrate water policy with objectives of Nature Directives¹². However, the Water Fitness check of the European Commission highlights the lack of political will, funding and integration with sectorial policies¹³, meaning that **enhanced efforts are needed to integrate water and nature directives.**

The new multiannual financial framework links the use of EU funds to sustainable investments in EU Member States and has an explicit biodiversity target. Moreover, trans-national cooperation is stimulated in the new funding programs.

The Danube River Basin Management Plan (DRBMP) is supposed to address the pressures identified at Danube basin level to support the achievement of the good ecological status of water bodies, to integrate the objectives of Nature Directives, and to achieve a favorable conservation status in the related Natura 2000 areas, including habitats and species of community importance. While the legal and financial framework for the restoration of aquatic biodiversity in the DRBMP 2021 is provided, the Programs of Measures usually include only few measures supporting aquatic biodiversity. They address mostly pollution reduction, fish passages and buffer-strips along rivers, while specific monitoring programs for endangered habitats and species, identification and reduction of major threats and protection of key habitats and endangered species are not addressed.

One of the key EU recommendations after the Water Fitness check¹² was to call on Member States to improve stakeholder involvement in implementation of the RBMPs. Strengthening the cooperation between water authorities and biodiversity/ecology experts could bring twofold benefits, contributing to a better integration of water and nature directives, and to the revival of aquatic biodiversity.

Taking into account that:

- Many of the recent EU policy documents support nature restoration, including aquatic biodiversity,
- The recently adopted MFF and Next Generation EU provide effective funding opportunities for nature restoration measures,
- The EC reports on implementation of water and nature directives highlight the need to enhance integration efforts, making clear that current measures are not sufficient,
- The DRBMP Program of Measures was elaborated before the release of these documents and, therefore, the opportunities provided by the recent policy/financial frames are not considered in the next WFD implementation cycle (2021-2027),

The IAD recommends:

- To urgently establish a **Freshwater Biodiversity Task Group** within the ICPDR to harmonize integration of water and nature directives with legal and financial opportunities provided by the new planning cycle,
- To **enhance the dialogue between water/biodiversity experts at national level** and identify the best measures to maintain the hydromorphological integrity of free-flowing river sectors and lakes and support aquatic biodiversity restoration, to be included in the RBMPs,
- To explore the possibility to **use the new funding opportunities** for restoring critically endangered aquatic species and habitats, establishing new ecological corridors and protected areas, and improving their protection status,
- To **foresee an adaptive management** and gradually **include the new measures addressing biodiversity integration** into the DRBMP in the up-coming years, in order not to lose another six years for nature conservation,
- To urgently launch coordinated research activities on **aquatic biodiversity status** in the Danube River Basin and possibility to **declare freshwater biodiversity a Significant Water Management Issue (SWMI)** in the Danube Basin.

Contact:

Dr. Cristina Sandu, International Association for Danube Research, cristina.sandu@danube-iad.eu, tel: +40.723.396.380

¹¹ Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, Sustainable Europe Investment Plan, European Green Deal Investment Plan, COM (2020) 21 final

¹² WFD Art. 6, Art. 8.1 ii), Art. 11, An. IV, VI and VII detail the elements addressing nature protection to be included in the river basin management plans.

¹³ SWD 439. 2019. Commission Staff Working Document. Fitness Check of the Water Framework Directive, Groundwater Directive, Environmental Quality Standards Directive and Floods Directive. Brussels, 10.12.2019.