ICPDR IKSD

International Commission
for the Protection
of the Danube River

Internationale Kommission
zum Schutz der Donau

Thematic Areas
Background Document

**Thematic Area 2 - Hydromorphological Alterations & Integration
Issues (Flood Risk Management, Hydropower, Nature Protection, Navigation, Agriculture)**

- Hydromorphological conditions play an important role in the functioning of aquatic ecosystems and are therefore important elements with regard to water status. Undisturbed hydromorphological conditions are not only important in relation to habitats, but also for the reduction of nutrient concentrations, adaptation to climate change, and for managing the risk of water scarcity and droughts.

- Hydromorphological pressures resulting from various hydro-engineering projects can significantly alter the natural structure of surface waters. Hydromorphological alterations in the DRBD are mainly caused by structural flood protection measures hydropower, navigation, agriculture, and water supply.

- The following three key hydromorphological alterations of basin-wide importance have been identified, considering sequence of hydromorphological quality elements in the WFD: a) Hydrological alterations (including impounded river sections, water abstractions and hydropeaking), b) Interruptions of longitudinal river continuity and sediment balance alterations, and c) Morphological alterations (related to river morphological alteration itself or to the disconnection of wetlands/floodplains).

- Negative effects of climate change will be more evident on hydromorphologically altered river stretches. Pressures most likely to intensify the negative effects include land use change and excessive water abstractions. Free-flowing rivers in protected watersheds are expected to be the most resilient to climate change.

- There were numerous hydromorphological measures already implemented for improving of hydromorphological conditions in the period 2009-2021.

  o More than 60 measures were related to improvement of hydrological alterations, mainly to impoundments and water abstractions.

OUR OPINION – OUR DANUBE

ICPDR Stakeholder Consultation
Workshop 2021

29th to 30th June 2021
– Online via Zoom –

Tuesday 29th, 09:00 am – 15:00 pm
Wednesday 30th, 09:00 am – 12:00 pm

- o Additionally, 146 fish aids were constructed and 109 river restoration projects were implemented.

- o There were also 87.070 ha of wetlands/floodplains partially or totally reconnected.

- Numerous fish aids and river restoration projects are currently in underway (planning or construction phase). There are also additional measures planned for the period 2021 to 2027. Approximately 250 measures are related to improvements of impoundments, 45 to water abstractions, 31 to hydropeaking, roughly 450 to continuity interruptions and 275 related to water bodies affected by morphological alterations. It is also foreseen that an approximately 36,000 ha of additional floodplains/wetlands will be reconnected.

- The integration with other sector policies is an important issue in the Danube River Basin in order to create synergies and avoid potential conflicts, and in particular ensure the sustainability of Future Infrastructure Projects in line with WFD requirements. Cooperation mechanisms involve:

  - o The coordination of planning processes of the WFD and Floods Directive;

  - o Further ensuring the exchange between the navigation and environmental sectors in the frame of the Joint Statement process;

  - o Facilitating the practical application of the Guiding Principles on Sustainable Hydropower Development in the Danube basin at national level;

  - o Streamlining measures under the WFD and Birds and Habitats Directive as far as water bodies in water-dependent protected areas are concerned to achieve joint benefits when it comes to river basin management and nature protection;

  - o Involvement of stakeholders from various sectors (agriculture, transport, spatial planning, industry) in both planning and implementation of RBMPs and FRMPs.