# DRBMP & DFRMP Updates 2021 Online Questionnaire: Results



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## **1** Introduction

Until December 2021, the ICPDR developed the Danube River Basin Management Plan (DRBMP) & Danube Flood Risk Management Plan (DFRMP) Updates 2021, both pertaining to the period between 2021 and 2027. For the development of these management plans, both representatives of civil society and stakeholders were called upon to contribute their views through a range of public consultation activities. All the people, cultures, and citizens of the Danube River Basin are affected by the measures that follow the plans, thus they were given an opportunity to have their say on the development of the plans from the outset. To expand the target groups of the public consultation process beyond expert stakeholders, a simple and accessible online questionnaire on the subject of both the DRBMP & DFRMP Updates 2021 was developed by the ICPDR for inclusion on its website: ICPDR.org.

The target group for this questionnaire included the interested, but less informed, members of the public. The questions related to very general aspects of the management plans, and sought feedback from the public in an attempt to both inform them about the plans, and confirm their satisfaction with the proposed measures. It also sought to shed light on the priorities of the general public with regard to climate change prevention, managing flood risks, and various other activities included in both the DRBMP & DFRMP Updates 2021. This questionnaire hoped to draw attention to both the plans and the public consultation measures themselves.

The record of the ICPDR's 2021 Public Consultation Process along with its results can be found published on ICPDR.org: <u>http://icpdr.org/main/activities-projects/public-consultation-draft-management-plan-updates-2021</u>

In 2021, 350 individuals began this questionnaire, 265 filled it in up to and including question 5, 255 filled it in up to and including question 8, and a grand total of 232 filled in the entire questionnaire.

While the information received through the questionnaire was very general, the questionnaire covered an important part of the ICPDR's comprehensive strategy to actively reach a broad audience with different consultation measures.

## **2** Headline Statistics

The Online Questionnaire was run on ICPDR.org/forms for a period of 6 months

• It ran from 1<sup>st</sup> April 2021 – 30<sup>th</sup> September 2021

350 individuals opened the questionnaire

- 265 individuals filled in up to and including question 5
- 255 individuals filled in up to and including question 8
- 232 individuals fully filled in the <u>entire</u> questionnaire

The questionnaire was available in 11 languages:

- English
- Bulgarian (Български)
- Croatian (Hrvatski)
- Czech (Čeština)
- German (Deutsch)
- Hungarian (Magyar)

- Romanian (Română)
- Serbian (Српски)
- Slovak (Slovenčina)
- Slovenian (Slovenščina)
- Ukrainian (Українська)

The questionnaire was opened by individuals in 15 countries:



The majority of those who completed the questionnaire were women:



Age

A very low percentage of those who filled out the questionnaire were aged below 20, while a slightly lower percentage were aged over 60.

The spread those aged between 20 - 59 however, was generally rather even, with 30-39 comprising the largest single age group.



### **Professional Background**

The individuals who filled in the Online Questionnaire came from a wide variety of relevant fields. The single largest group (excluding 'Other') was *Water Management Authority*, followed closely by *Administration*.



### **Follow-Up Information**





## **3 Online Questionnaire: Introduction Text**

### What is the purpose of this questionnaire?

*Let us explain!* This questionnaire is seeking your input as a member of the public living in the Danube River Basin. It has been designed to be both informative for you as a member of the public, and to help us to find out more about public perception and knowledge of draft management plans in the River Basin.

### What are the DRBMP & DFRMP?

*Let us explain!* Every six years, the International Commission for the Protection of the Danube River (ICPDR) updates its "Danube River Basin Management Plan" (DRBMP), including assessments and measures towards the achievement of "good status" in waters of the Danube River Basin. The previous update to the Danube River Basin Management Plan was in 2015, followed by its second update forthcoming in 2021.

The "Danube Flood Risk Management Plan" (DFRMP) – a similar document focusing on the assessment and management of flood risk in the region – was first published in 2015, and is receiving its first update in 2021.

The ICPDR's mission in implementing the Danube River Protection Convention (DRPC), the EU Water Framework Directive (WFD), and the EU Floods Directive (FD) – as well as the various directives and strategic plans shaping its work – is to achieve the ICPDR's three key pillars:

- "CLEANER" waters for everyone to enjoy;
- a "HEALTHIER" home for aquatic animals and plants and;
- a "SAFER" environment for people to live without the fear of floods.

## **4** Danube River Basin Management Plan: Results



*Q1: Before you received this questionnaire – had you heard of the Danube River Basin Management Plan?* 

Q2: Where did you hear about the Danube River Basin Management Plan?



*Let us explain!* The measures described in the Danube River Basin Management Plan address all phases of the six-year management cycle. They focus particularly on five Significant Water Management Issues (SWMIs) – Organic Pollution, Nutrient Pollution, Hazardous Substances Pollution, Hydromorphological Alterations, and Effects of Climate Change. These can affect the status and quality of surface waters like rivers, lakes, transitional and coastal water bodies and transboundary groundwater bodies.





*Let us explain!* Wastewater contaminated with organic pollution, i.e. faeces, organic household and industrial waste that can be digested by microorganisms, can lead to a loss of oxygen in waters creating an unfriendly and unhealthy environment for many aquatic creatures. Efforts are now underway to clean up this pollution at its source to ensure much <u>cleaner</u> waters for people to enjoy and <u>healthier</u> ecosystems for a better life.



*Q2.2* Do you think this reduction in organic pollution is:



Q3.1 Do you know what Nutrient Pollution is?



*Let us explain!* When wastewater or fertilizer nutrients such as nitrogen or phosphorus get into surface waters, they encourage algae growth. As algae grow, they block sunlight from other aquatic plants, which eventually die, to then be digested by bacteria, using up the oxygen in the water too, potentially killing off fish and other aquatic species. Urban and industrial wastewater and polluted water from agriculture can lead to massive algae blooms.

Such nutrient emissions enter water bodies via both point sources (identifiable single entry points) such as wastewater treatment plants, as well as more diffuse pathways (not identifiable spread entry points) such as runoff, soil erosion and subsurface flow. Both emission categories introduce and transport nutrients from agriculture, urban areas, atmosphere and even natural areas into the Danube River Basin's waters.

In the Danube River Basin, a decrease in nutrient emissions from urban wastewater treatment plants has also been observed since 2015. For example, nitrogen emissions have reduced by 20%, while those of phosphorus have seen a 30% reduction.



Q 3.2. Do you think this decrease in nutrient emissions is:

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### Effects on the Black Sea Ecosystem

The Danube River ultimately drains into the Black Sea at the Danube Delta in Ukraine and Romania. The Danube River Basin Management Plan specifically refers to the Black Sea as a key beneficiary of measures taken in the Danube River Basin to reduce nutrient pollution also known as eutrophication:

"The ICPDR's basin-wide vision for nutrient pollution is the balanced management of nutrient emissions .... [so] that neither the waters of the [Danube River Basin] nor the Black Sea are threatened or impacted by eutrophication."



*Q3.3* Do you think that nutrient pollution in the Danube River needs to be managed to protect the Black Sea ecosystem?

*If no, why not?* 

- "for the same reasons why it is addressed in the DRBMP."
- "Kurz vor der Mündung wird die Belastung sowieso erhöht." (DE>EN: 'Shortly before the mouth of the river, the load is increased anyway.')
- "Mert nem kellene a keletkezett városi csapadékot és szennyvizet a folyókba engedni, hanem a sivatogosodás megállítására helyben kellene tartani! Sőt még a folyókon érkező vizeket is be kellene engedni a tájba és tájgazdálkodást folytatni!" (HU>EN: 'Because urban rainwater and wastewater should not be discharged into rivers, but should be kept in place to stop desertification! Moreover, even the waters coming from the rivers should be let into the landscape and should be used for landscape management!")
- "to je velmi komplexný problém a nekontrolovatelný" (HU>EN: '*It is a complex and uncontrolled problem*')
- "Потребно је узети у обзир и утицај постојећих брана на Дунаву, чији утицај на екосистем није занемарљив, тако да су подручја која се налазе у зони успора брана такоће једнако битна за управљање загађењем нутријентима." (SE>EN: 'It is necessary to take into account the impact of existing dams on the Danube, whose impact on the ecosystem is not negligible, so that areas located in the slow zone of dams are also equally important for the management of nutrient pollution.')





*Let us explain!* When we hear the word "pollution", we often tend to think of hazardous substances - such as toxic chemicals and metals that come from industry, farming and everyday household substances, including garden pesticides, cosmetics, or medicines/pharmaceuticals. Recognizing how dangerous these substances might be to human health and ecosystems, EU legislation has significantly stepped up to reduce the emission of these hazardous substances. Aiming for <u>cleaner</u> waters that are <u>healthier</u> and <u>safer</u> for both people and aquatic life, new technologies, updated regulations and scientific measures are being implemented to reduce or halt the spread of hazardous substances in the waters of the Danube River Basin.

Recent ICPDR investigations have provided essential information on the nature of hazardous substances, drawing a much clearer picture of the pollution problem in the Danube River Basin. As a result, a basin-wide inventory and assessment of emissions of selected hazardous substances is being created along with recommended measures to reduce or eliminate emissions of these substances.

*Q4.2* Do you think addressing hazardous substances pollution is:



*Let us explain!* The ICPDR is operating the Danube Accident Emergency Warning System (AEWS), activated whenever there is a risk of transboundary water pollution, e.g. a chemical spill or accident on or near the river.

The AEWS sends out international warning messages to countries downstream based on a predefined routing scheme. Details about each incident, such as time, place, involved substances, causes, observed effects, and counter measures taken are collected in predefined forms and automatically translated into the recipient's language. This helps authorities to put environmental protection and public safety measures into action.

Q4.4 The Danube River Basin Management Plan Update 2021 proposes to continue maintaining the AEWS system in future years. Do you see this as:



Addressing Hydromorphological Alterations

Q5.1 Do you know what Hydromorphological Alterations are?



*Let us explain!* Over the last few decades, human activities – such as building dams and reservoirs, fragmenting rivers, ponding or channelizing them, and abstracting water – have led to changes in the physical conditions of the Danube and its tributaries. Even small stretches can be massively affected when the river's natural course is changed. These changes in physical conditions are called 'Hydromorphological Alterations'. Consequently, natural habitats have been substantially decreased and biodiversity significantly reduced (e.g. due to interrupted fish migration routes). Today, however, Danube countries are working hand-in-hand to make our waters a <u>healthier</u> home for aquatic life once again, with great benefits for society.

Q5.2 Which of the statements above most closely reflects your opinion?



*Let us explain!* Climate Change is already taking a strong toll on rivers such as the Danube, leading to increased water scarcity, and other extreme events. In 2019, the ICPDR added "Effects of climate change (drought, water scarcity, extreme hydrological phenomena and other impacts)" to its list of Significant Water Management Issues (SWMIs), indicating it as a top priority for the Danube River Basin.

## *Q6.2* The Danube River Basin Management Plan Update 2021 describes the following vision for Climate Change prevention:

"The ICPDR's basin-wide vision to deal with adaptation to and mitigation of water related effects of climate change (drought, water scarcity, extreme hydrological phenomena and other impacts) is to make full use of our wealth of knowledge on River Basin Management to meet the challenges posed by climate change, to achieve resilience and ultimately sustain the inherent ecological and cultural value of the aquatic environment for the Danube River Basin. Preventive measures will be taken to mitigate impacts of climate change, to adapt to it and to minimise the related damages, thus reducing the vulnerability of aquatic ecosystems and water related ecosystems to climate change."

Do you agree that Climate Change is a top priority to be addressed for protecting rivers? Q6.3 Are you aware of the different ways in which you as an individual can actively contribute to improving the status of waters in the Danube River Basin?



*Let us explain!* There is a variety of ways to help improve water status, such as:

- Not flushing household waste (including makeup, medicine, and other chemicals)
- Reducing unnecessary drinking water use at home
- Collecting rainwater for irrigation
- Reducing waste generation (plastic, food)
- Choosing tap water over bottled mineral water
- Reducing chemical fertiliser and pesticide use in gardens and yards
- Choosing environmentally friendly products where possible
- Safely recycling hazardous waste
- Taking part in clean-up actions at rivers and river banks

## **5** Danube Flood Risk Management Plan: Results



*Let us explain!* The measures described in the Danube Flood Risk Management Plan address all phases of the six-year flood risk management cycle and focus particularly on:

- prevention (i.e. preventing damage caused by floods by avoiding construction of houses and industries in present and future flood-prone areas or by adapting future developments to the risk of flooding)
- protection (by taking measures to reduce the likelihood of floods and/or the impact of floods in a specific location such as restoring floodplains and wetlands), and
- preparedness (e.g. providing information to the public on what to do in the event of flooding, raising their awareness, and the creation of flood risk maps).



### *Q8.1* Where did you hear about the Danube Flood Risk Management Plan?

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### **Protecting Against Flooding**





*Let us explain!* Flood events in recent decades have proven that despite all protection efforts, some level of residual risk will always remain. In accordance with standards, flood protection measures are designed - if possible - to withstand a so-called '100-years flood event' (an extreme flood only likely to occur once per century). Even so, it is always possible for these measures to become overloaded by even larger floods, thus they do not guarantee a 'total' safety – although certainly a greatly reduced risk. Such flood protection measures are always built in coordination with all relevant stakeholders including the participation of potentially affected people.

### Flood Warning Systems



Q10.2 Are you familiar with such flood monitoring systems operating in your country?



*Let us explain!* Meteorological services in the countries of the Danube River Basin provide certain insights when it comes to flood forecasting and warning. These include monitoring and forecasting of the weather situation, advisory and warnings on dangerous weather events such as heavy precipitation, storms, hail, etc.

Hydrological services monitor the current situation on the rivers in the Danube River Basin via gauging stations, which provide regular hydrological information. The flood forecasting services regularly provide hydrological forecasts and publish them online. In case of flooding, flood protection authorities are immediately informed. Warning messages are circulated as soon as extreme meteorological or hydrological conditions have been forecasted. During floods, these messages are accompanied by information on the flood's evolution and further forecasting.

### Natural Flood Protection

Q11 Are you aware of the implementation of natural water retention projects in your municipality/location/area/region?



*Let us explain!* Natural water retention means that efforts should be made to retain rainwater at the location or in the ground where it fell. This approach helps to reduce flood risks and also contributes to improving the environment (a win-win solution). Some key practices that can improve natural water retention include: afforestation (planting new trees in previously bare areas), buffer strips (large areas of empty land used to retain water), terracing, sustainable urban drainage systems, green roofs (grass-covered roof-tops with many benefits such as improving air quality and adapting urban areas to a future climate with warmer summers), restoration of wetlands, and floodplains.

### Managing Floods Across Borders

Q12 Do you agree that working together with your closest neighbouring countries on transboundary water management issues is the most effective approach?



*Let us explain!* The ICPDR is fully aware of the importance of applying the <u>solidarity principle</u>; one should not pass-on water management problems from one region to another. That is why the ICPDR agreed that measures with downstream effects shall have key priority at the basin-wide level. According to the Danube Flood Risk Management Plan: "Countries shall not apply measures which, by their extent and impact, significantly increase flood risks in the countries neighbouring upstream or downstream. Countries should take all possible steps not to export the flood problems to their neighbours."

### How to: Self-protection precautions in case of flooding

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*Let us explain!* There are a variety of ways individuals and property owners can take their own precautionary measures against floods:

- Keep water away from the building (choice of location of the building, water sensitive shaping of the terrain, walls and swells, ramps, little banks, mobile elements, demountable barriers)
- Sealing and protecting (sealing of doors and windows, mobile closures, waterproof walls)
- Wet precaution (controlled flooding, stilted buildings)

### Managing Floods Across Borders





*Let us explain!* In practical terms, there are a number of reasons why coordination between the Water Framework Directive (achieving 'good water status') and the Floods Directive (flood protection) is beneficial. These include:

- Interaction of legal and planning instruments in many countries;
- Planning and management under both Directives generally use the same geographical unit (e.g. the Danube River Basin)
- Aiding the efficiency of the implementation of measures and increasing the efficient use of resources.

### Getting ready for tomorrow

*Q15 Do you wish to be informed about activities of the ICPDR, related to flood management, in the future?* 



Q16 How would you like to be informed about floods, your personal risk from floods and what you personally can do for better protection from flooding?



