



WWF Hungary
H-1141 Budapest,
Álmos vezér útja 69/a

Adószám:18226814-2-42

Tel: (1) 214 5554
panda@wwf.hu
www.wwf.hu

wfd-fd@icpdr.org

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Public consultation, Draft Danube FRMP 2

Dear colleagues,

As long-term NGO observer, WWF Central and Eastern Europe appreciates the progress that has been made in Danube basin flood risk management planning over the past two decades.

We would also like to highlight our satisfaction with the numerous opportunities provided to WWF and other NGO representatives for engaging in ICPDR discussions and processes. The statement of WWF CEE on the draft Danube basin level flood risk management plan is attached to this letter.

Best regards,

Tamas Gruber
freshwater programme manager
WWF Hungary – WWF Central-Eastern European Programme



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Draft Danube River basin Flood Risk Management Plan, Public Consultation 2021

STATEMENT OF WWF CEE

As long-term NGO observer, WWF Central and Eastern Europe appreciates the progress that has been made in Danube basin flood risk management planning over the past two decades.

We would also like to highlight our satisfaction with the numerous opportunities provided to WWF and other NGO representatives for engaging in ICPDR discussions and processes and very much hope that such a transparent approach has been replicated at national level for this consultation round but also future river basin management processes.

The draft updated Danube basin level flood risk management plan (DFRMP2) is well developed and understandable also for professionals and laymen. WWF CEE has some remarks on the whole draft plan and on some specific chapters and maps.

Main highlights:

- I. WWF highly appreciates that green measures are included in the updated draft DFRMP2 main text and it is declared that natural water retention may have a significant role in flood risk management.
However, some more details in the annexes (esp. annex 2 on measures) do not reflect this green approach or the level of their application is unclear.
In some countries implementation of green measures for flood mitigation are lagging behind and interventions go against nature conservation objectives. From the Danube basin level FRMP's the annex 2 (overview of measures) lists green measures as well, but the ratio between the traditional, grey measures and green ones are not indicated, only a general list on national level. We understand that such a basin plan cannot include measures' breakdown per water bodies, but at least on national level could be indicated the above-mentioned ratio to have a better view on progress toward integrated and more sustainable solutions.
Also, there is no convincing evidence among the examples, projects or data mentioned in the plan that underline the above mentioned green approach, although the statements of the text communicate that the green measures are considered or are priorities. We suggest that all information and examples are shared which show evidence that the green solutions are as important in flood risk management as the grey measures, or that the consideration of them is a priority, or at least key aspect during flood risk management planning on national level. There are examples and projects in the draft, including promising elements or already results, but data or maps are not shared where the reader can compare what the exact proportion of grey and

green measures is. Such data in summary tables or on maps would help to see the overall picture and judge the level of ambition on basin wide or on national level.

- II. WWF appreciates that Danube basin countries have agreed on some principles considered and implemented on national level with horizontal impact in the whole basin. What is still missing is the practical information about the concrete cross-border, multinational joint actions. Like in the Danube basin river basin management plan, prioritized basin-wide or key transboundary actions should be part of the DFRMP2.
- III. WWF welcomes the process of WFD and FD harmonization on the Danube basin level (The specific comment on the harmonization is in the text further down.) WWF would like to raise the attention to the integrated solutions promoted also under the DRBMP. Priority should be given to integrated solutions that solve several problems at the same time, not only flood management, but also drought mitigation, water quality improvement or biodiversity objectives with a longer term perspective.

Remarks to the chapters of updated FRMP

1. chapter 3.2 flood risk maps: Please include data in the chapter about the reference year of the maps. Are they also dated in October 2019, like APSFRs? Or these maps were developed in 2020?
2. chapter 3.3 – it is not clear to which annex the text refers to, regarding the following statement: “is provided in the updated summary report on implementation of article 6 and 14 (2) of the flood risk directive in the Danube Basin District”. This information would be necessary to understand the approaches followed by the different countries.
3. Chapter 5 - We can read that the *measures and their prioritisation consider those measures which have transboundary impact or basin wide importance and consider measures which are applicable in more countries*. We propose to provide information about the concrete measures and their affected countries, making clear which countries belong to the concrete transboundary measures.
4. Chapter 5 and 5.1 and annex 2 include 3 different types of approaches for prioritization. The 1st aspect is about „measures with transboundary impact / basin wide importance and measure applicable in more countries”, the 2nd aspect is the prioritisation of measures with upstream and downstream effects (nwrn, warning system, reduction of risk from contaminated sites), 3rd aspect includes the 5 selected basin wide objectives (avoidance of new risk, reduction of existing risks, strengthening resilience, raising awareness, promoting the solidarity principle). These are 3 different aspects and their weight in the prioritization is not clear. Basically these 3 aspects are relevant and we agree with them, just we recommend to make clear which measures contribute to which aspect.
5. chapter 5.4 – It is important that the flood risk management plan and the proposed measures are evaluated from the climate change aspect, focus on integrated solutions that solve several problems at the same time such as flood management, drought mitigation, or biodiversity

objectives. Climate change significantly influences the low water period and the drought phenomena and not only floods. It is recommended that the following principle is included in the flood risk management: flood risk management measures will not increase drought risk of habitats or community lands on active and hydromorphological floodplains (APSFRR).

6. chapter 5.5.2: see our recommendation above, under the number 1. overall highlight
7. chapter 5.5.6 – We suggest that the definition of basin-wide measures is included in this chapter. The table in annex 2 is only a list of measures by the countries. We suggest to include or highlight here those measures that require joint efforts of all or several countries in order to have impact) In the subchapters of 5.5.6. a list of priority measures of basin-wide importance is missing. Many of these projects are not about implementation of measures, but “only” preparation. Separation of these very different statuses help to evaluate real progress.
8. chapter 6.3 – The description is good and emphasizes properly that NWRMs have multiple benefits. We recommend to include one important topic: the widening of the active floodplain, relocation of dykes or regulated water outlets through dykes. More space to the rivers increases significantly the water retention capacity and it has a key prerequisite: the adaptation of land use to regular inundation. We suggest including these aspects in the text of chapter 6.3. In our opinion an important conclusion and data is missing from chapter 6.3: the geographical scale of the NWRMs measures implemented in the past and planned in the future in the Danube countries.
9. Chapter 6.4. The examples of this chapter provided by the Danube countries are not in line with the ideas and proposed approach in chapter 6.3. The examples are not convincing or even don't include NWRM. We conclude that NWRM is part of the countries' flood risk management approach in general. We suggest that the missing data about the scale of the implementation is added and the proportion of the implementation of green measures and grey measures.

Specific remarks that confirm the statements above:

* The capacity and potential of the retention is missing in cases of CRO, SLO, RS, B&H countries. No concrete numbers or data is listed (or linked) in the document. Due to the high pressures on the water bodies, nature based solutions or NWRM have to become obligatory technical solutions, not only mentioned as preferred option if possible. Having this in mind, we also suggest deleting one part of the sentence (marked crosslined) on pg 78 (text on Croatia): "In the prioritization of the flood protection measures, the natural water retention and flood retention measures (i.e. Green Infrastructure measures) are emphasized over the structural flood protection measures ~~where their application is technically and economically feasible.~~"

* Slovak FRMP (2015) did not implement NWRM in its full potential, only a few types of measures (from the catalogue of measures <http://nwrn.eu/measures-catalogue>) were selected and these are more likely only recommendations. Necessary additional steps for their successful implementation are missing in the Slovakian FRMP.

* It is mentioned in the chapter that "the measures of water accumulation and water retention are tested in Slovakia". However, there are no results or information about these activities in the SK FRMP nor in the Preliminary flood risk assessment (2018)

10. chapter 7, 7.2 and 7.3 – (coordination with WFD) This chapter still includes only high level, general statements, however since the first cycle, more knowledge and data were collected and further preparations were done in the countries. The information about the implementation of win-win measures is missing from it. In chapter 7.3 about the progress, the total 15 130 hectares on basin wide level seems very low taking into account the available 6 years since 2015, especially that the implementation is not finished on all of them (planning is ongoing on 2650 ha) or were implemented only partially (7954 ha were partially reconnected). We would like to see more ambitious progress in the implementation of win-win measures.

Specific remarks that confirm the statements above:

* it was mentioned in the chapter that "The national FRMP will be approved by the Slovak Ministry of the Environment (MoE) and will form a component of the RBMP". However, in the draft of SK RBMP, description of objectives and requirements of Flood directive is vague and only refers to the PoM of Flood directive with no clear interlink with RBMPs. The draft of SK RBMP provides little evidence that the objectives and requirements of the Floods Directive have been considered.

* As part of the comment process of SK RBMP, we pointed out that there are still discrepancies between the measures listed within RBMP and FRMP.

We recommend to emphasize the following in chapters 7, 7.2 or 7.3:

NWRM with hybrid measures can be given the much needed implementation push by taking the following steps:

A) focus on integrated solutions that solve several problems at the same time, not only flood management, but also drought mitigation, water quality improvement or biodiversity objectives with a longer term perspective.

B) overcome the blockage by the agricultural sector by providing the right incentives. This entails in particular the opening of CAP Pillar 1 direct payments for water retention on arable land and amendment of land use regulations to support water retention on agricultural lands, as well as inclusion of WFD compensation schemes in the CAP Pillar 2 for restrictions of certain land use such as water drainage, time of seeding, or irrigation due to conservation measures.

C) Building capacity in authorities for planning and implementing restoration and conservation measures together with key sector representatives, such as agriculture, flood mitigation, nature conservation, forestry.

D) Preparing a pipeline of projects including feasibility studies, stakeholder engagement, and agreements with land-owners, technical design and permits and funding allocation.

E) Allocating financial resources e.g. from the National Recovery and Resilience budgets, the Operational Programmes and Common Agricultural Policy funding lines to the Programmes of Measures.

11. Chapter 8 about CBA - Many methodologies are available on cost-benefit analysis, but we miss information in the country sub-chapters whether the CBA is a real decision making support tool during the selection of measures and during the FRMP implementation process. The experience is that there is a lack of knowledge on this field among the experts and at the institutions responsible for FD and WFD. We recommend to add trainings and knowledge sharing in the proposed activities in Danube countries during the coordinated and harmonised WFD - FD implementation.
12. Chapter 10 international coordination: It is suggested to show in this chapter the way flood risk is managed on cross-border water bodies, including how the national FRMPs are harmonized on those stretches. This is especially relevant on long river stretches of the Danube (Slovakia-Hungary, Bulgaria-Romania) where the river flows on the country borders. Without concrete information on that, it is rather difficult for the stakeholders to get a full picture about the international coordination.
13. 12.1.2 ICPDR Observer Organisations: The name of our organisation changed from WWF DCP to WWF CEE (WWF Central and Eastern Europe).

Inputs from the Danube Floodplain project

WWF is aware that there is an intention to include the conclusions and recommendations of the Danube Floodplain project into the flood risk management plans on basin wide level, as well as country level.

Some of the most important conclusions from the outputs, manual and road map of the project which we would like to emphasize:

- a) Reducing the connectivity between channel and floodplain is the major threat of floodplain ecosystems in the Danube Basin. The approaches to achieve lateral connectivity in pilot areas are different. The most common measure is the relocation of dykes, others are the creation of connection channels or the modification of channel planform.
- b) The results of meso-scale biodiversity assessment in the pilot areas show that floodplain habitats, and thus biodiversity, can benefit from increasing the lateral connectivity, as intended by the majority of restoration scenarios. While the assessment on the meso-scale shows the general tendency for the development of habitats, a microscale analysis gives insights on the level of species or specific communities. However, this requires in-depth knowledge of the setting and cannot be obtained without extensive fieldwork
- c) Integration of the environmental objectives and flood risk management objectives requires moving away from the classical flood protection solutions to nature-based ones.
- d) To affect the peak discharge, we consider it crucial not only to consider a single restoration measure but a combination of multiple measures, on the river channel, the floodplain extent, and the character of the floodplain (natural conditions).
- e) Nature based solutions refers to actions in which reducing the flood risk is provided, while at the same time natural properties of the floodplains are restored and preserved
- f) Because of the multiple benefits provided by natural floodplains, EU policies encourage floodplain restoration based on integrative plans and win-win solutions. Synergies between

Flood Risk Management Plans (FRMP) and River Basin Management Plans (RBMP) should be mainly reflected by sustainable measures either addressed for the prevention and mitigation of floods, but in the same time for reaching the environmental objectives of the water resources.

- g) Agreement on the wide range of benefits provided by floodplain and river restoration could be ensured by using an approach rooted in ecosystem-based management when developing river basin and flood risk management plans.
- h) Considering the specific criteria, 24 potential floodplains (see table below) were also identified. Potential floodplains represent in fact one of the key interest points considering the improving the lateral connectivity on Danube River. Ranking (need for preservation + restoration demand) has been performed for all active Danube floodplains

Table 1 Delineated potential floodplains along the Danube and gauges, where the 1D model results are handed over to the next downstream partner

Nr	Code	Location	Country	Area (ha)
1	DE_DU_PFP01	Oberelchingen - Lech	DE	16697.755
2	DE_DU_PFP02	Lech - Neuburg	DE	3735.836
3	DE_DU_PFP03	Großmehring	DE	493.489
4	DE_DU_PFP04	Katzau	DE	308.573
5	DE_DU_PFP05	Geisling/Gmünd	DE	2502.078
6	AT_DU_PFP01	Krems - Wien	AT	16065.502
7	AT_DU_PFP02	Wien - Devin	AT	12139.098
8	HU_DU_PFP01	Szigetköz	HU, SK	15711.284
9	HU_DU_PFP02	Paks	HU	2214.239
10	HU_DU_PFP03	Veránka-sziget	HU	16171.593
11	HU_DU_PFP04	Béda-Karapnacs	HU, HR	5470.582
12	RS_DU_PFP01	Siga - Kazuk	RS	6057.497

13	RS_DU_PFP02	Vajska	RS	5986.201
14	RS_DU_PFP03	Kamarište	RS	10069.097
15	BG_RO_DU_PFP01	RO: Desa area	BG: Slivata - Orsoia area	8276.79
16	BG_RO_DU_PFP02	RO: Bistret - Bechet area	BG: Dolni Tibar - Oreahovo area	27972.78
17	BG_RO_DU_PFP03	RO: Bechet - Turnu Magurele area	BG: Oreahovo - Cerkovita area	30972.02
18	BG_RO_DU_PFP04	RO: Traian - Zimnicea area	BG: Deagas Voivoda - Svistov area	20450.04
19	BG_RO_DU_PFP05	RO: Nasturelu area	BG: Novgrad area	3169.1
20	RO_DU_PFP01	Borcea Buliga	RO	857.922
21	RO_DU_PFP02	Bentu	RO	68.551
22	RO_DU_PFP03	Garliciu	RO	1083.819
23	RO_DU_PFP04	Tichilesti	RO	31808.282
24	RO_DU_PFP05	Cotu Pisicii	RO	1163.455

For the HU Tisza section: (name/potential floodplains and km2) :

Total of 316,6 km2: Milota 20,9km2, Tizadob 39,4km2, Tiszadorogma 31,1km2, Pély 36,2km2, Nagykörű-Szajol 40km2, Szolnok Tiszaug 91,4km2, Lakitelek-Csongrád 57,6km2

Comments on the maps

- Map 1 – We acknowledge that the methodology of flood hazard areas depends on country decisions, but map 1 is not so informative with this approach. With respect to Croatia's Danube basin sites on Map 1, it seems to show that about 90% of the country is affected somehow by medium probability floods. These are under flood risk within 100 square kilometres or under

flood risk of rivers shorter than 50 km. The map 1 in this format can be interpreted that the river / stream network of Croatia is so dense, that there is almost no square kilometre which is not affected by waters. This does not seem to be logical if we consider the topography and the land use of these territories.

- MAP 5a – the sites where the PAs and the low probability flood areas are overlapping should have different colour than red or purple. The map now doesn't show the overlap of these two categories. We see the low probability flooded areas with red and the protected areas with purple, but the overlapping areas don't have a different colour.
- Map 5b – We suggest that in the upcoming updated version not only the total number of protected areas are on this map, but data of the size of these areas is also available. The total size is more informative than the total number of PAs.

30th September 2021

Tamas Gruber, WWF Hungary/WWF CEE

Laurice Ereifej, WWF CEE

Irene Lucius, WWF CEE