FLOOD RISK MANAGEMENT PLAN FOR THE DANUBE RIVER BASIN DISTRICT– 2015

STATEMENT, COMMENTS OF WWF DCP

WWF DCP is an observer in the ICPDR meetings, followed and contributed to the development of the DFRMP. We experienced the efforts and capacity invested to develop the first draft plan (data, information collection, discussions among experts and representatives of the countries). We acknowledge and appreciate all these efforts and processes.
In our statement paper we intent to point out some key issues for further improvement.

General remarks:

- The **main text of the plan includes new approaches for flood risk mitigation, especially highlighting natural water retention measures** (NWRM) contributing to achieve good status of water bodies which we fully support and underline its importance. Also acknowledge some countries' efforts toward this (e.g. Austrian and German examples).

  However the annex listing the measures planned by the countries is not reflecting to the same degree this approach and acceptance of WFD compatible measures or NWRM which expressed in the main text. We assume this is not only a question of formulation of the text, but **reflects the real status in the countries**. **Using NWRM where possible is considered in theory, but not yet translated into action.** In the coming years during the implementation of the FRMPs this will be one of the challenges for the planners, relevant authorities and stakeholders.
- The shortage of financial resources and capacity call for a **prioritization approach** to define the most effective and urgent measures. **Additionally to the non-structural flood risk mitigation measures - in case of interventions on the field - we suggest to consider as a principle, that NWRM (which helps to achieve WFD objectives) should be assessed first as priority for flood risk mitigation. If these measures cannot fully reduce the flood risk to the required level, then traditional engineering measures could be considered as supplement, ensuring combined solutions. Keep purely structural, traditional engineering measures with deterioration potential to a minimum.**
- Those measures which incorporate the integrated approach and have **multiple benefits (like biodiversity improvement, flood mitigation, nutrient reduction, drought/water scarcity mitigation, climate change adaptation, etc.) should be analysed as priority**. Such actions need to be included in other relevant plans as well (e.g. RBMPs or Natura2000 management plans).
- We would like to underline the importance of the **well balanced communication of the flood issue toward the public. Flood waves are not only a risk, a negative**

phenomenon, but a positive service, natural resource for people. From the ecological point of view, floods are vital. Floods supply floodplains, connected wetlands with water ensuring fish reproduction, nutrient reduction, biomass, grazing areas, etc. which are crucial ecosystem services.

- In most of the cases building of artificial emergency reservoirs for flood mitigation are not appropriate solutions for the problem. These new infrastructure **(reservoirs) don't target to solve the root cause of the problem and have high investment and high maintenance costs**. The root of the problem is the improper land use on the former floodplains (morphological floodplain), where landuse doesn't adapt to the natural and geomorphological conditions, but an artificial and costly status is maintained. The EU agriculture subsidies (CAP pillar I) maintain intensive agricultural practices also on areas which are not profitable, but the subsidy works against changing toward more nature friendly landuse. **Natural depressions on the floodplains should be considered first for flood retention with nature friendly land uses (fish production, grazing of meadows, reed or other biomass production, forestry, etc.).**
- **Improvement of intersectorial working relationship with the agriculture sector and better allocation of CAP funds (strengthen CAP pillar II.)** are strongly recommended and supported. **Shifting of CAP funds to more effectively finance WFD compatible measures** to achieve good status also ensures flood risk mitigation with natural water retention measures.

Annex - Measures:

- Some measures are too general, or there is no clear connection of the concrete measure and the measure category. We suggest specifying or better describing those for avoiding misunderstandings, misinterpretations. (E.g. under Hungary: " leading the floods into other river basin". We don't really understand this measure, in particular from catchment management point of view.)
- From the formulation of some measures its not clear if restoration of former floodplains is also considered or only restoration of active floodplains. Also a question if land use change includes floodplain restoration or not.
- We found some controversial measures connected with Hungary (e.g. removal or relocation of dykes and heightening or reinforcement of dykes under the same cell). We suggest to set up criteria when the different measures are recommended to apply, or set up priority list among measures.
- Removing obstacles, clearing flood conveying channels can work against biodiversity and WFD objectives, thus careful planning with proper intersectorial negotiations are crucial. (E.g. cutting of natural floodplain forests are not supported, but clearing invasive species from the floodplain like Indigo bush *Amorpha fruticosa* are in line with environmental objectives.)

Annex - maps

- map 1– about flood hazard is very similar to the maps that show the river basin before river regulations. It means that the restoration and floodplain reconnection capacity is still very big on the river basin. The land use change and regulation (ban) of building new infrastructure on these areas are very good tools to reduce flood risk, and parallel restoration works have very big potential.
- map 5, a– we suggest indicating with a different colour or on a different map the areas, where protected areas/ N2000 sites are overlapping. This is not clear on this map thus the main information is lost.
- The designation of flood hazard areas should be better harmonized. The state borders are also borders for flood hazard areas on the Croatian-Slovenian, Croatian-Austrian border, although rivers don't change when crossing the state borders. Countries evaluated the level of the hazard differently on the same river.

Interlinkage between river basin management and flood risk management

In order to achieve the maximum synergies and reduce the potential conflicts, the following key conditions, activities are necessary:

Developed measures under the WFD and FD processes have to be the result of a **joint planning or at least iterative feedback loops between the planners of the RBMP and FRMP**. **Relevant water bodies have to be analysed in parallel from both directives point of view.** Analysis should be done of different measure scenarios for the water bodies and the most effective ones chosen from the point of view of reaching natural/environmental objectives, reducing flood risk and fulfil cost-effectiveness.

As a principle, apart from non-structural measures, in case of field interventions NWRM (which help to achieve WFD objectives) should be considered first as priority for flood risk mitigation. If these measures cannot fully reduce the flood risk to the required level, then traditional engineering measures could be considered as supplement, ensuring combined solutions. Keep purely structural, traditional engineering measures with deterioration potential to a minimum.

More concretely, it is suggested to overlay of Flood hazardous and risk maps with RBMP floodplain restoration maps in order to do the following:

- **From a flood risk management perspective, analyse and consider floodplains earmarked for restoration under the DRBMP as first choice flood risk management measures.** In places where floodplain restoration is not sufficient or not an option, other flood risk management solutions such as polders, reservoirs on the floodplain should be planned in a way that they support the WFD objectives e.g. by maintaining or increasing the area of wetlands within the polder and adapting the land use practises according to it (like grazing wet meadows, managing reed). Base these decisions on a cost-benefit analysis or multi-criteria analysis that give sufficient weight to WFD benefits (like nutrient reduction, fish production, biodiversity).
- From a water management perspective, **make those floodplain restoration sites a priority for action that respond best to flood risk mitigation objectives**. Reconsider adding areas to the list of floodplain sites to be reconnected if they are urgently needed flood retention areas. Base these decisions on a cost-benefit analysis or multi-criteria analysis that give sufficient weight to flood retention benefits.

- **Land use values at risk from flood damage should be scrutinised in order to analyse whether (harmful) subsidies favour a land use type that is not favourable to WFD implementation and whether a shift of subsidies to WFD compliant land use makes a NWRM profitable.** For example, wheat production on a floodplain area not favourable for this type of production might only be profitable because the farmer receives CAP funds. This pushes up the value of land and thus might favour a polder solution when in fact a floodplain restoration measure would have more benefits from a WFD and FD perspective. Shifting CAP funds to measures that support farmers in changing their land use in response to restoration might provide a higher return both for the individual farmer and society.
- Additionally land use change and the wide range of landownership requires special knowledge on **proper stakeholder involvement for which trainings and capacity building for planners and responsible bodies are necessary**.
- **The communication of flood related issues should be well balanced . Flood is not only a risk, but a positive , natural phenomenon,** a service and resource for people and nature. From ecological point of view floods are vital. Floods supply floodplains, connected wetlands with water ensuring fish reproduction, nutrient reduction, groundwater recharge, etc.

  Suggested checklist for main flood risk mitigation measures that contribute to WFD objectives:

  - restoration of former wetlands/floodplain areas, increasing their territory, demolition of existing dykes (like summer-dykes) or dyke relocation
  - creation of new wetlands
  - restoration of meandering capacity of rivers
  - restoration of side-branches
  - restoration of oxbows and lakes, use them for water storage
  - elimination of invasives on the active floodplain
  - reforestation on catchment
  - retention of water, precipitation and sewage
  - controlled inundiation of morphological floodplain, natural depressions outside the flood protection dykes
  - regulations in land use (e.g. no new buildings on floodplains, increase area of grasslands/wet meadows next to the main channel instead of low profitable arable lands)
  - change land use that is resistant to floods (e.g. to grasslands/wet meadows on the floodplain instead of sensitive crops)
  - modify agriculture subsidy systems in order to ensure incentives for nature friendly land use change (e.g. change to wet meadows, grazing areas like grasslands, reed management, bee keeping)

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