

Comments from the Global Water Partnership Central and Eastern Europe to the draft Danube River Basin District Management Plan Update 2015, and the draft 1st Flood Risk Management Plan for the Danube River Basin District

Since its inception Global Water Partnership Central and Eastern Europe (GWP CEE) works in the context of European water policies, in particular the EU Neighbourhood Policies and the EU Water Framework Directive (WFD) through its Country Water Partnerships. There are 12 Country Water Partnerships - CWPs (in Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Moldova, Poland, Romania, Slovakia, Slovenia and Ukraine) that form GWP Central and Eastern Europe. Out of the 12 CWPs 8 CWPs are connected to the Danube Basin.

The GWP CEE is a long term collaborative partner of the International Commission for the Protection of the Danube River (ICPDR). Transboundary dialogues on water quality, hazardous substances and hydro-morphological impacts are facilitated by GWP CEE in cooperation with the ICPDR.

GWP CEE has made a review of both draft plans - the Danube River Basin Management Plan Update 2015 and the 1st Flood Risk Management Plan for the DRB - issued by the ICPDR for public consultation using experts network in the CWPs and the Danube Strategy Task Force of the GWP CEE.

The outcome of the review is summarized in the following two main parts of this document.

Part I. Comments to the Danube River Basin District Management Plan Update 2015

I. 1. Background

The review of the Danube River Basin District Management Plan - Update 2015 was carried out on the Draft 15 May 2015 version published by the International Commission for the Protection of the Danube Basin (ICPDR). The plan and its related maps and annexes were available only electronically and could be found at: <http://icpdr.org/main/draftplans-2015>

The following three documents were reviewed, which were accessed and downloaded on 23 June 2015:

[DRBM Plan - Update 2015: Draft Report](#)

[DRBM Plan - Update 2015: Draft Maps](#)

[DRBM Plan - Update 2015: Draft Annex](#)

The Danube River Basin District Management Plan - Update 2015 document has 127 pages and structured into 9 main chapters, such as: 1 Introduction and background; 2 Significant pressures in the DRBD; 3 Protected areas in the DRBD; 4 Monitoring networks and status assessment; 5 Environmental objectives and exemptions; 6 Integration issues; 7 Economic analysis; 8 Joint Programme of Measures (JPM); 9 Public information and consultation. The

Danube River Basin District Management Plan - Update 2015 plan is supplemented with 35 thematic maps and 15 Annexes.

Taking into account of the available time for the review it was not possible to make checking on the numerical data reported in the documents. In this regard only internal disharmony of the text and cross-references of some common figures and tables with Flood Risk Management Plan for the Danube River Basin District version 4.5 were checked.

I. 2. Comments to DRBM Plan

The Danube River Basin District Management Plan - Update 2015 gives a comprehensive overview of:

- the historical development of the DRBD MPs (1st and Update 2015) and their supporting reports (Roof Report, Analysis Reports: 2004, 2013, etc)
- updates compared to the 1st DRBM Plan 2009 and puts a stronger emphasis on the topic of integration with other sectoral policies.
- the integration with flood risk management, inland navigation, sustainable hydropower and climate adaptation receive particular attention, beside the inter-linkage with the marine environment and the issue of water scarcity and drought which are also addressed.

General comments:

- Future climate scenarios in the region forecast increased frequency and severity of extreme weather events, which will result in the increase of water scarcity and droughts. GWP CEE recommends to consider water scarcity and drought impacts and adaptation measures as significant issues on basin wide level in the Danube River Basin Management Plan Update 2015.
- In the DRBMP Update 2015 the reduction of organic and nutrient pollution of surface and groundwater is a significant water management issue. The construction of sewerage network and waste water treatment plants for large number of settlements with PE between 2000 and 10000 as well as providing solutions for settlements smaller than 2000 PE (people equivalents) would require unrealistically high costs from countries in the south and eastern part of the Danube Basin.
GWP CEE recommends to consider application of sustainable sanitation methodology with emphasis on using natural treatment technologies wherever these are feasible, thus reducing the very high economic burden on countries in the south and eastern part of the Danube Basin where there are still large number of small settlements without proper sanitation facilities.

Comments to the text: (in order of page number

- Page 12: In the last paragraph: "Figure 8" should be renumbered as Figure 7.
- Page 13: "(Table 3 and Figure 9)" should be renumbered as (Table 3 and Figure 8).
- Page 16: In Chapter 2.1.1.3 Summary and key findings

It is stated in this chapter: *"However, 34% of the agglomerations (representing 17% of the PE) have no collection systems which should be constructed together with appropriate treatment in the future."*

Comment: GWP CEE prepared a guidebook on natural waste water treatment technologies and recommends to consider the treatment methodologies for small settlements as alternatives with lower investment, maintenance and operation cost solutions. The guidebook could be found at:

http://www.gwp.org/Global/GWP-CEE_Files/Regional/Sustainable-sanitation-EN.pdf

- Page 16: In Chapter 2.1.2 Nutrient pollution

It is stated in this chapter: *"Surface waters can receive significant nutrient emissions from agricultural fields due to the high nutrient surpluses of the cultivated soils and/or inappropriate agricultural practices."*

Comment: Nutrient surpluses of cultivated soils in most of the New EU MS and Non-EU countries are decreasing or constant and even in some regions the nutrient surpluses are negative. It would be good to show a graph on these trends by countries for the last 30 years. In the first table in Annex 11 the "Nutrient (N) surplus" column shows that only Slovenia reports slight increasing surplus, while for most of the countries the nutrient surplus stagnant or negative, and five countries did not provide information on this issue.

The estimated nutrient emission to surface waters could come not only from leaching of soil nutrient surplus but from runoff, erosion and through base-flow when timing and application technology of organic or inorganic fertilizers are not environmentally sound.

However, it should be noted that nutrient surplus is not a measure of the amount of nutrient that could be subject of emission to water resources, rather it is a sort of measure to indicate the amount of nutrient in the rootzone that the plant could utilize.

- Page 22: Figure 17:

In the left part of the figure there is no dimension given to the numbers at the top of the columns.

- Page 23: In Chapter 2.1.2.4 Summary and key findings

In the last paragraph it is stated: *"However, the reported industrial direct emissions rose by about 46% (TN) and 10% (TP) which is probably caused by the improved reporting quality."*

Comment: The industrial emission increase might come from increased industrial production in the region as well.

- Page 25: In Chapter 2.1.3.2 Hazardous substances pollution from accident risk spots and contaminated sites

In the last paragraph it is written: *"For the CS the M2 methodology has been applied for risk assessment."*

Comment: A reference paper would be needed here. It is not common to know M2 method.

- Page 31: under Figure 21 is written: *" ..., posing problems i.e. for long and medium distance migratory fish species."*

It is suggested to write: ..., posing problems i.e. for long and medium distance migratory fish species as well as for sediment transport.

- Page 35 in Water abstraction paragraph

It is written in the text:

"The pressure analysis concludes that in total 138 significant water abstractions are causing alterations in water flow in DRBD rivers (Figure 25 and Map 13). 87 water bodies are affected by these pressures. The Danube River itself is only impacted by alterations through water abstraction at Gabčíkovo hydropower dam (bypass channel) and water abstractions in Germany as well as Hungary."

In Map 13 the DE Danube section is marked with blue line, no indication of any significant water abstraction, though text and Figure 25 refer to 5 significant water abstractions. Clarification is needed in the text why the DE Danube section is marked with blue.

Clarification is also needed for the light green marked Hungarian Danube section. Why restoration measures are not necessary if there are still 3 significant water abstractions in this section.

- Page 37: before Chapter 2.1.5 Other issues

Comment: While there is a Summary of key findings chapter for three significant pressures (organic pollutions, nutrient pollutions and hazardous substances pollutions), such key findings chapter would be valuable and useful for hydromorphological alterations, as well.

- Page 65: Chapter 6.4 Inland navigation and the environment
Acronym IWT is not referenced in the List of Acronyms.

- Page 79: in Table 22: The only country which reported that population connected to public sewerage system is less (74%) than population connected to wastewater treatment plant (99%).

Comment: Clarification would be needed to explain how this could be.

(The difference comes from the situation that significant portion of the households collects wastewater in septic tanks from which the collected wastewater is transported time to time to wastewater treatment plants.)

- Page 109: Table 35: Dimension is missing.
- Page 109: Table 35: An identical table is presented in the *Flood Risk Management Plan for the Danube River Basin District* on page 55 (Table 1), but the numbers do not match. Harmonisation of the two tables and the corresponding texts is needed.
- Page 110: In paragraph Impoundments.
Numbers in the text and Table 36 (construction on-going and completed) do not match.

In paragraph Water abstractions. Numbers in the text and Table 37 (construction on-going and completed) do not match.

- Page 122: In the last paragraph acronym ESIF is not referenced in the List of Acronyms.

- Page 125: Chapter 8.8 Key conclusions
Comment: In the final version similar to Annex 2 of *Flood Risk Management Plan for the Danube River Basin District* (Chapter 7 List of transboundary projects supporting DFRMP) a list of planned projects / actions supporting implementation of JPMs or at least give indication what multi-country actions might assist the implementation of JPMs would be a value.

II. Comments to the 1st Flood Risk Management Plan for the Danube River Basin District

II. 1. Background

The review of the Flood Risk Management Plan for the Danube River Basin District was carried out on the 4.5 version (date: 28 May 2015) published by the International Commission for the Protection of the Danube Basin (ICPDR). The plan and its annexes were available only electronically and could be found at: <http://icpdr.org/main/draftplans-2015>

The following five documents were reviewed, which were accessed and downloaded on 23 June 2015:

[FRM Plan: Draft 1st Flood Risk Management Plan for the DRB](#)

[FRM Plan: Draft Annex 1 \(Hazard and Risk Maps Update\)](#)

[FRM Plan: Draft Annex 2 \(Measures\)](#)

[FRM Plan: Draft Annex 3 \(Competent Authorities\)](#)

[FRM Plan: Draft Annex 4 \(Bilateral Agreements\)](#)

The Flood Risk Management Plan for the Danube River Basin District document has 77 pages and structured into 13 main chapters, such as: 1 Introduction; 2 Conclusions of the preliminary flood risk assessment; 3 Flood hazard maps and flood risk maps; 4 Objectives; 5 Measures; 6 Water retention; 7 Cost-benefit analysis; 8 Coordination with WFD; 9 Impacts of climate change; 10 International coordination; 11 Solidarity principle; 12 Public information and consultation; 13 Conclusions and next steps.

The Flood Risk Management Plan for the Danube River Basin District is supplemented with 4 Annex documents, such as: Annex 1: Flood hazard and risk maps; Annex 2: Overview of Measures; Annex 3: Competent authorities; Annex 4: Bilateral agreements on flood risk management in the DRBD.

Taking into account of the available time for the review it was not possible to make checking on the numerical data reported in the documents. In this regard only internal disharmony and cross-references of some common figures and tables with Danube River Basin District Management Plan - Update 2015 (Draft 15 May 2015) were checked.

II. 2. Comments to FRM Plan

The Flood Risk Management Plan for the Danube River Basin District gives a comprehensive overview of

- the historical development of the FRM Plan
- conclusions of the preliminary flood risk assessment
- flood hazard maps and flood risk maps
- the flood risk management plan itself.

Comments to the text:

- Similar to *Danube River Basin District Management Plan - Update 2015* a list of
 - Acronyms
 - Tables
 - Figures
 - Maps and
 - Annexes would be needed in the *Flood Risk Management Plan for the Danube River Basin District*, as well.
- In the text several reports, documents, publications are mentioned, but there is no reference cited for them. Consequently, there is no reference list in the plan, which would be needed.
- Page 12: Chapter 3 Flood hazard maps and flood risk maps:
In the *Annex of Flood Directive* determines the main elements of the flood risk management plan. In Part I. Components of the first flood risk management plans, par. 2. it is written that one of the elements is: "*flood hazard maps and flood risk maps as prepared under Chapter III, or already in place in accordance with Article 13, and the conclusions that can be drawn from those maps;*"

Comment: Chapter 3 Flood hazard maps and flood risk maps of the FRM Plan does not contain a conclusions section. It would be valuable to compile basin wide conclusions from these maps.
- Page 45: Chapter 7 Cost-benefit analysis
This chapter provides concise information by countries about the cost-benefit analysis method they used. As the information in most cases is very general it is recommended that references or links to documents available on the internet be given for the methods mentioned.
- Page 53: second paragraph
The numbers referred in the text in this paragraph does not correspond with the numbers cited on page 109 in the top paragraph and in Table 35 in the DRBD MP discussing the same issues.
- Page 55: In Table 1:
Numbers in Table 1 do not match with the numbers in Table 35 of DRBD MP, which has the same content. Harmonisation of the two tables and the corresponding texts is needed.

- Page 56: Chapter 8.4 National activities towards coordinating FD & WFD implementation

The information that countries provided has no similar structure.

It is recommended to apply a kind of template with defined information elements (such as institutions involved in the implementation; legislation applied; harmonisation steps, etc) and amend the information wherever it is needed and restructure them according to the elements of the template.

- In *Annex 3 Competent Authorities* the information for Hungary needs updating. It is advised to check other countries as well.
- In *Annex 4 Bilateral agreements* AT and DE provided information only in German. It should be translated to English as it is the case of other countries where information was primarily given in national language.

Budapest, 19 July 2015.

The report was prepared by Dr. János Fehér, Leader of the Danube Strategy Task Force of the GWP CEE.