WATER QUALITY GOVERNANCE

Water Quality Cooperation in the Danube Region – A Hungarian perspective

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In the case study bellow please find short information about a practice of water cooperation in Europe, in Hungary with its neighbouring countries located in the Danube River basin: using the tools of international law and territorial cooperation as well, in the frame of the Danube Strategy.

Cooperation on the Danube is continuous at a number of levels, with data collection and information exchange, the establishment of early warning systems, monitoring of water quality and a uniform methodology on emissions data; the joint setting up of project proposals and assisting in financing: all of these actions have served to mitigate the adverse impact on ecosystems across the basin.

The Danube case study from a Hungarian perspective is a positive example of how nested legal and institutional frameworks can merge into effective cooperation activities under key agreed objectives in relation to water quality.

The need for clean drinking water, the threat of floods and the risk of water scarcity or industrial spills are everyday problems, which influence the life of citizens living in the region. It is the intent of Hungary to strengthen regional cooperation further in this area and to play a central role in the framework of a

constructive partnership in the EU Strategy for the Danube Region (EUSDR) and its Priority Area Water Quality (PA4) and Environmental Risks (PA5).

The Danube River basin

The Danube River Basin covers more than 800,000 square kilometres - 10% of continental Europe – and extends into the territories of 19 countries. This makes it the most international river basin in the world. Over 80 million people live in this basin, with many depending on the Danube for drinking water, energy production, agriculture, and transport. Its ecological diversity, from plant and animal species to critical habitats, is also highly valued.[1]

Cooperation on the Danube began in the early 1900s over navigational issues and gradually expanded in both geography and scope. This process, which commenced with a 'Trans-national Monitoring Network' (1985 Bucharest Declaration) culminated, after considerable efforts, in the adoption of the Convention on Co-operation for the Protection and Sustainable Use of the River Danube (DRPC).[2]

To commit to transboundary cooperation in protecting the Danube, the main Danube countries signed the DRPC in 1994. Today, 14 Danube Basin countries and the European Union are `contracting parties´ of the International Commission for the Danube River (ICPDR). They work jointly towards the sustainable management of the Danube basin`s waters.

[1] ICPDR: The Danube River Basin District Management Plan – Update 2015, Part A – Basin-wide overview

[2] International Law–Facilitating Transboundary Water Cooperation GLOBAL WATER PARTNERSHIP

Table 1: Basic characteristics of the Danube River Basin District

Country	Code	Coverage in DRB (km²)	Share of DRB (%)	Percentage of territory within the DRB (%)	Population within the DRB (Mio.)
Albania	AL	126	< 0.1	0.01	< 0.01
Austria*	AT	80,423	10.0	96.1	8.1
Bosnia and Herzegovina*	BA	36,636	4.6	74.9	3.2
Bulgaria*	BG	47,413	5.9	43.0	3.5
Croatia*	HR	34,965	4.4	62.5	2.9
Czech Republic*	CZ	21,688	2.9	27.5	2.7
Germany*	DE	56,184	7.0	16.8	10
Hungary*	HU	93,030	11.6	100.0	10.1
Italy	IT	565	< 0.1	0.2	0.02
Macedonia	MK	109	< 0.1	0.2	< 0.01
Moldova*	MD	12,834	1.6	35.6	1.1
Montenegro*	ME	7,075	0.9	51.2	0.2
Poland	PL	430	< 0.1	0.1	0.04
Romania*	RO	232,193	29.0	97.4	20.2
Serbia*	RS	81,560	10.2	92.3	7.5[6]
Slovak Republic*	SK	47,084	5.9	96.0	5.2
Slovenia*	SI	16,422	2.0	81.0	1.8
Switzerland	CH	1,809	0.2	4.3	0.02
Ukraine*	UA	30,520	3.8	5.0	2.7
Total		801,463	100	-	79.00

*) Contracting Party to the ICPDR

Source: Danube River Basin District Management Plan – Update 2015

In 2000, the EU Water Framework Directive (WFD) came into force, establishing a legal framework to protect and enhance the status of aquatic ecosystems, prevent their deterioration, and ensure the long-term, sustainable use of water resources throughout the EU. In response, the ICPDR countries, including non-EU Member States, agreed to implement the WFD throughout the entire basin. The contracting parties made the ICPDR the facilitating platform to coordinate WFD-related work.[3] Because Non-EU countries are also part of the Convention that regulates implementation of EU legislation, the WFD, there is an added value for Non- EU countries cooperation within the framework.

The objective of the WFD is to achieve for all inland surface waters, transitional and coastal waters 'good chemical and ecological status (or potential)' – and for all groundwater to achieve 'good chemical' and 'quantitative status'. For a set of selected hazardous substances called priority substances, limit values were set on the European level, which are defining "good chemical status". 'Clean water', not polluted by organic substances, nutrients and dangerous substances is essential. However, it is not enough in case the natural ecosystem including its flora and fauna is significantly damaged or dysfunctional. That is why a holistic approach requires surface waters to be as well in 'good ecological status': River bed and banks have to be well structured and enough water has to be ensured so that migration routes and natural habitats are provided for aquatic animals and plants.[4]

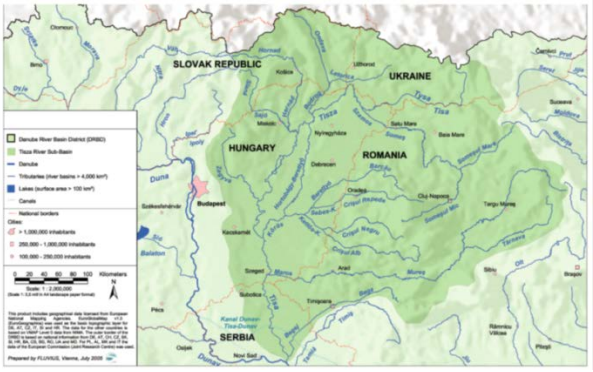
Hungary

Hungary is located in the heart of Europe; it is 93.000 square kilometres large and has 10 million inhabitants. Hungary consists of 7 Regions, the most frequented part is Budapest – the Capital of Hungary – where 17% of the inhabitants, 1,7 million people live. Hungary is located in the Carpathian Basin, which forms a topographically discrete unit set in the European landscape surrounded by the semi-circular Carpathian Mountains. Two thirds of the country is lowland (84% of the Hungarian territory is below the

[3] ICPDR: The Danube River Basin District Management Plan – Update 2015, Part A – Basin-wide overview

[4] ICPDR: The Danube River Basin District Management Plan – Update 2015, Part A – Basin-wide overview

altitude of 200 m) with strong continental influence. Floods, inland waters, draughts and continental weather effects, climate change issues affecting the country and there are also sensitive/vulnerable areas in the country.



Hungary's entire territory is part of the river basin of the River Danube. Almost all rivers arrive from neighbouring countries (Austria, Croatia, Romania, Serbia, Slovakia, Slovenia and Ukraine), with 96% of the surface water resources being of foreign origin. Accumulating waters reach Hungary through 24 water courses and leave the country via three rivers, the Danube, the Tisza and the Drava. This is fundamental in determining Hungary's exposure to floods. The ensuing scarcity and abundance of waters can equally cause problems. Under such specific water management circumstances close cooperation with all 7 neighbouring countries as well as in the broader catchment area, is a fundamental political imperative for Hungary.[5]

Cooperation is visible in many levels in the Danube basin by:

1. **Legislative tools:**

- Concluding and complying with
  - **international, multilateral conventions**, such as the already global Convention on the Protection and Use of Transboundary Watercourses and International Lakes (UNECE Water Convention) or the 1997 (New York) Convention on the Non-Navigational Uses of International Watercourses;
  - **regional and sub-regional agreements**, such as the 1994 (Sofia) Convention on Cooperation for the Protection and Sustainable Use of the Danube River;
  - **bilateral agreements**; such as agreements concluded between Hungary and all 7 neighbouring countries related to transboundary water.

- Complying with **obligatory European requirements**, most importantly the Water Framework Directive and all related EC norms.

[5] The Hungarian Water and Sanitation Industry in the 21st century, Hungarian Investment and Trade Agency, www.hita.hu.

2. Policy tools:

- Strengthening **water diplomacy** and keeping the water agenda priority at highest levels, as the Hungarian water diplomacy is demonstrating for international water issues.

- **Preparing and adopting management plans**. The EU Water Framework Directive requires the elaboration and regular update of Integrated River Basin Management Plans on the basin-wide level. The 1st Danube River Basin Management Plan (DRBM Plan) was adopted in 2009. According to public consultation requirements, a draft for the updated Plan was elaborated by the Danube countries in the frame of the International Commission for the Protection of the Danube River (ICPDR) and accepted in December 2014 for launching public consultation. The DRBM Plan – Update 2015 was finalised in December 2015 setting the objectives, strategic priorities and agreed measures for the Danube River Basin and for the management period 2015 until 2021. The DRBM Plan – Update 2015 was elaborated in close coordination with the 1st Danube Flood Risk Management Plan according to the EU Floods Directive. The DRBM Plan-Update 2015 was adopted by the Danube countries in December 2015 at the 18th Ordinary Meeting and was endorsed on 9 February 2016 at the Danube Ministerial Conference organised by the ICPDR in Vienna.

- The ICPDR is organising on a 6-years basis **Joint Danube Surveys** (JDS) with participation of experts and scientists from the Danube countries. JDS is the world's biggest river research expedition of its kind, further catalysing international cooperation between the Danube countries and the European Commission, united through ICPDR. The main objectives of JDS are to collect information on parameters not covered in the ongoing monitoring programmes, to have data that is readily comparable for the entire river because it comes from a single source, and to promote the work of the ICPDR and raise awareness for water management. For the 3rd JDS the practical sampling was carried out in summer/autumn 2013, followed by an extensive analysis stage which was in the meantime completed. The JDS3 scientific report was finalised and adopted by the Danube countries in December 2014.

- Activities to **strengthen transboundary cooperation** on water management in sub-basins of the Danube region (Tisza, Sava, Prut and Danube delta) are on-going.

    - There is a long history of **cooperation in the Tisza River Basin that** is the largest sub-basin in the Danube River Basin. The Tisza River is the longest tributary of the Danube (966 km), and drains an area of 157,186 km² in five countries (Slovakia, Ukraine, Hungary, Romania, Serbia). At the first ministerial meeting of the ICPDR countries in December 2004, ministers and high-level representatives of the five Tisza countries signed the Memorandum of Understanding (Towards a River Basin Management Plan for the Tisza River supporting sustainable development of the region), which was further strengthened in 2011. The ICPDR established the Tisza Group for coordination as well as implementation. The Tisza Group is the platform for strengthening coordination and information exchange related to international, regional and national activities in the Tisza River Basin and to ensure harmonisation and effectiveness of related efforts. The Tisza Group countries agreed on to prepare a sub-basin plan (the Tisza River Basin Management Plan), which integrates issues on water quality and water quantity, land and water management, flood and drought. The recent project proposal titled 'Strengthening cooperation between river basin management planning and flood risk prevention to enhance the status of waters of the Tisza River Basin' was elaborated by means of joint actions of five countries (UA, SK, HU, RO, RS) sharing the Tisza River Basin. The main aim of the project is to further improve the integration of the water management and flood

risk prevention actions in the next RBM planning cycle, in line with the relevant EU legislation. A joint transnational strategic document will be the main output of the project in which measures facilitating the harmonization of related national regulations will be outlined, so that the updated Integrated Tisza RBM Plan will be developed and Tisza cooperation could be further developed.

- Furthermore, another important action related to the **Sava River** is the establishment and completion of the SavaGIS in the frame of the International Sava River Basin Commission (ISRBC). As a key component of the system, the ICPDR facilitated via the Technical Assistance the development of the Sava Hydrological Information System (Sava HIS). Sava HIS provides a tool for collecting, storing, analysing and reporting hydrological and meteorological data to be used for decision-making in all aspects of water resources management. The exchange of quality controlled data and information is an essential element for the undertaking of different activities ranging from flood forecast and warning to the various aspects of water resources management.
- With regard to other sub-basin activities, the project "Environmental protection of international river basins (EPIRB)" has been started in 2012 and funded by the EU (ENPI). Among the five selected pilot river basins in the Black Sea region, the **Prut River** has also been chosen, where Moldova and Ukraine developing a joint River Basin Management Plan according to the EU WFD requirements and in close exchange with the ICPDR.
- In the **Danube Delta**, a project financed by the Environment and Security Initiative (ENVSEC) is focusing on improved cross-border cooperation and to build capacities for introducing a river basin approach for the management of natural resources in the Danube Delta Region. The draft Danube Delta Analysis Report (DDAR), including the evaluation of important water management issues of the region, is under finalisation.

- Initiating **awareness-raising** both in policy making and at layman level, such as the Danube Days that are being held on June the 29th each year, where the 14 countries of the Danube Basin jointly celebrate one of Europe's greatest river systems. (Also good example is the ICPDR practice for public participation in decision-making.)

- Promoting **discussion** on problems, initiate joint understanding, such as the recent **Danube Declaration**[6] by European ministers or the 2004 Memorandum of Understanding (updated in 2011) in the case of the Tisza River Basin.

- **Data collection and policy development**. Recent example is the Danube Sediment Management - Restoration of the Sediment Balance in the Danube River (Acronym: Danube Sediment) proposal that was prepared by 24 partners from the Danube Basin. The main objective of this project is to improve water and sediment management as well as the morphology of the Danube River. The main results are towards the improvement of navigation conditions, reduced flood risks, sustainable river system and durable hydropower production by a better and sustainable sediment management in the Danube Basin. The main outputs are key contributions to the Danube River Basin Management Plan and the Danube Flood Risk Management Plan by developing the first Danube Sediment Management Guidance comprising measures to be implemented and a Sediment Manual for the stakeholders consisting of approaches how to implement the measures.

- **A Joint Document of Synergies between the ICPDR and EUSDR** that has been developed in 2014 and it was adopted by the Danube countries in December 2014 to outline common elements of the work, to seek for more strengthened cooperation and to specify issues/goals to

[6]Danube Declaration adopted at the ICPDR Ministerial meeting 9 February 2016: Water Management in the Danube River Basin: Integration and Solidarity in the most international river basin of the world; www.icpdr.org/main/mm16.

be achieved by the different expert bodies. The document describes several options about how to reinforce synergy such as (1) strengthening the network; (2) closer coordination; (3) early consultations; (4) meeting efficiency; (5) innovative approaches; (6) mutual recognition and visibility (7) cross-sectoral cooperation; (8) strategic guidance and coordination; (9) priority setting; (10) alignment of funding.

- The Hungarian and Slovakian EUSDR PA4 coordinators as well as from the experts of the ICPDR and ISRBC developed a '**work plan**' to list the main ongoing activities of Priority Area Water Quality of the EUSDR. The main objective of the work plan and timetable is to include those activities, which are under implementation, financially covered or planned to be covered and relevant for the Danube countries, indicating a realistic time-schedule on the actions planned and actions under implementation.

- **Cooperation with international partners** is also a key factor for EUSDR PA4.

Beyond the ICPDR, the **Sava Commission** is also an important partner. The Sava Commission is responsible for the 'Implementation of the Sava River Basin Management Plan', the 'Update of the Sava River Basin Analysis', the 'Development of the 2nd Sava River Basin Management Plan', also responsible for the 'Establishment and completion of the SavaGIS'– the elaboration of the 'Sava Hydrological Information System – Sava HIS'.

The **UNEP Carpathian Convention** is a sub-regional treaty to foster the sustainable development and the protection of the Carpathian region. The Convention was signed by seven Carpathian States (Czech Republic, Hungary, Poland, Romania, Serbia, Slovak Republic, and Ukraine). The Danube Strategy PA4 is strengthening the future joint cooperation via the Tisza River Basin activities. In the frame of the Annual Forum PA4 workshop on 'Integrated horizontal cooperation' in 2015 a Joint Declaration has been signed between ICPDR Tisza Group and Carpathian Convention. It is - among others – aiming at to strengthen the cooperation between the two bodies, especially in the Tisza sub-basin,, to cooperate in the field of education and awareness raising in the level of the local communities as well as to strengthen relationship between mountain sustainable development in the Tisza river basin and Tisza river basin management and also in the topic of climate change. To reach objectives and further elaborate the topics of the future enhanced cooperation it is a mutual intention to develop and implement joint, coordinated and complementary activities and projects. The Carpathian Convention also participates in the JOINTISZA project consortium as an associated strategic partner.

The **EU Joint Research Centre** a key initiator of fact and science based policy support to the macro- regional water policy. To integrate the new water nexus, being established by the JRC, into the framework in to PA4 of EUSDR the PA4 invited the water nexus leaders in June 2013 to provide an overview and to discuss the nexus. There are some good examples already of macro regional co-operations established between research institutions to join forces with the JRC and to broaden the research to support the EUSDR.

- Another significant goal (also in a long term period) is the **stronger involvement of the non-EU countries in the work of the EUSDR PA4, namely Bosnia and Herzegovina, Serbia, Ukraine, Moldova and Montenegro. This practice is already ongoing within ICPDR activities**. EUSDR PA4 PAC teams took specific emphasis on the involvement of Non-EU Members States in the EUSDR process. Based on the discussions with the ICPDR two priority topics have been determined to be further investigate and focus: (1) urban waste water treatment plans and their status in the Non-EU countries and (2) phosphate in detergents. To investigate about this topic the EUSDR PA4 teams have organised study visits to Serbia,

Bosnia and Herzegovina and met with Moldavian and Ukrainian experts in 2015. The missions aimed at the update of the country situation and specifics; identification of needs and possible projects to be set up and discussion on possible partners for waste water treatment projects, both for small settlements and also for bigger projects and to assist in looking for financial assistance.

- In line with this objective in the second half of 2014 Hungary offered a one-month period for a secondment from Moldova, and a one month period for a secondment of Bosnia and Herzegovina in the second half of 2015. The **secondment programme** ensured a rich technical programme in the field of water management and governance.

3. Organizational tools:

- Hungary actively participating in **international water organizations**, such as the UNECE Water Convention, presently holding its presidency, the International Commission for the Protection of the Danube River, co-chairing two expert groups: the Tisza and Flood Expert Groups, or participating in several other organizations, such as for example the World Water Council.

- Involved in either the **setting up or operation of appropriate organizations** and administrative, operative bodies at international and national levels:

  - ICPDR Secretariat, Heads of Delegations and Expert Groups,
  - **Bilateral water committees** established with all neighbouring countries of Hungary (Austria, Croatia, Romania, Serbia, Slovakia, Slovenia and Ukraine),

  - **Types of consultations**, i.e. Investments with potential transboundary impact; Resolving conflict-situations; Measures/investments of common interest in order to avoid transboundary problems; River basin management plans harmonisations.

The most typical transboundary investments / interventions are: water intakes, sewage system development, WWT projects, Construction of bridges, building reservoirs, pumping stations etc.

(Please note that transboundary consultation is part of the authorisation /permission process, information, documentation submitted via plenipotentiaries; further management of the issues at the level of secretaries of the commissions, regional/local national authorities involved, in line with national procedures.)

- National water bodies and directorates;

- Bodies assisting further international cooperation (Tisza Group and the establishment of National Tisza Office hosted by the Middle-Tisza-District Directorate in Szolnok, Hungary for example.)

4. Regional development tools

The EU pays special attention to co-operation also at water basin level and for that it adopted macro-regional strategies, namely the EU Strategy for the Baltic Sea Region[7] and following the welcome of it further adopted and endorsed the EU Strategy for the Danube Region (EUSDR) under the Hungarian Presidency in June 2011.[8] Later, in October 2014 the EU Strategy for the Adriatic and Ionian region[9] and one year afterwards the EU Strategy for the Alpine Region[10]was adopted. The EU emphasises the importance of early exchange of experiences between macro-regional strategies on the best practices of the implementation of the water-related priority areas.

Hungary actively participating

- **in macro regional cooperation programmes of the EU:** Coordinating the Water Quality Priority Area of the Danube Strategy (together with Slovakia), coordinating the Environmental Risks Priority Area of the Danube Strategy (together with Romania) and the Energy Priority Area (together with the Czech Republic.)

- **Hungary participating in the different 2014-2020 cross-border, transnational and interregional co-operation programmes, such as**

  - Interreg V-A - Slovenia-Hungary (TO 6.c 10 mill EUR)
  - Interreg V-A - Slovakia-Hungary (TO 6.c 55,4 mill EUR)
  - Interreg V-A - Hungary-Croatia(TO 6.c 27,2 mill EUR)
  - IPA CBC Hungary - Serbia (TP2 22,5 mill EUR)
  - Interreg V-A - Austria-Hungary (TO 6.c mill EUR)
  - Interreg V-A - Romania-Hungary (TO 6.c 30,5 mill EUR)
  - ENI- Hungary-Slovakia.Romania-Ukraine-(TO 6 14 mill. EUR)
  - Central Europe and Danube Transnational programmes.

(In brackets the amounts allocated to environment-water related priorities)

Program areas

[7]European Council conclusions of 29-30 October 2009 (doc. 15265/1/09 REV 1) and Council Conclusions on Regional approaches to management of water and the marine environment, including implementation of the EU Strategy for the Baltic Sea Region (doc. 17797/09).

[8]Council conclusions of 13 April 2011 on the European Union Strategy for the Danube Region (doc. 8743/1/11 REV 1 - COM(2010)715 final).

[9] Brussels, 17.6.2014 COM(2014) 357 final COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS concerning the European Union Strategy for the Adriatic and Ionian Region.

[10] Brussels, 28.7.2015 COM(2015) 366 final COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS concerning a European Union Strategy for the Alpine Region {SWD(2015) 147 final}.

In the frame of the above programmes and their preceding programmes several projects are being/had been established and implemented to improve related to the quality of waters in the Danube basin. The most current proposals awaiting to be funded were prepared also with the assistance of Hungary and Danube Strategy are the important topics of the improvement of the water and sediment management as well as the morphology in the Danube Basin (DanubeSediment project) and the update of the TISZA River Basin Management Plan and Tisza cooperation development (JOINTISZA project) both of which were prepared and submitted in 2015 to the Danube Transnational Programme.

5. Assisting in finding proper financial tools for water projects

- The Danube strategy is active in **project generation, partnership change and networking**:
    - 18 Danube basin water related projects and ideas were introduced in the frames of the EUSDR PA4 Steering Group meetings between years of 2013-2015 and at several ICPDR Working Groups where country representatives gave their feedback on the on-going activities and initiatives as well as next steps to be achieved.
    - The Danube Strategy organized workshops and stakeholder conferences, the latest stakeholder conference on **European funding opportunities in the water sector**, held in November 2015 in Budapest to facilitate networking and available financial possibilities for project generation and implementation related to water in the Danube basin.
    - PA4 was active in **selecting the projects for SEED Money Facility** under the EUSDR and voted the best projects to be funded: STAWA (Towards the assessment of ecological status of water bodies in the Sava River Basin), REWATER (Revitalization of Eutrophic Waters for Different Degrees of Pollution and the Size of Water Areas) CleanRiver (Creation of feasibility study for improvement of wastewater treatment facilities in Ukraine) and project SANDANUBE (Sustainable sanitation in small settlements of the Danube Region) were selected for START support.

6. Recent examples of alerting in cases of problems

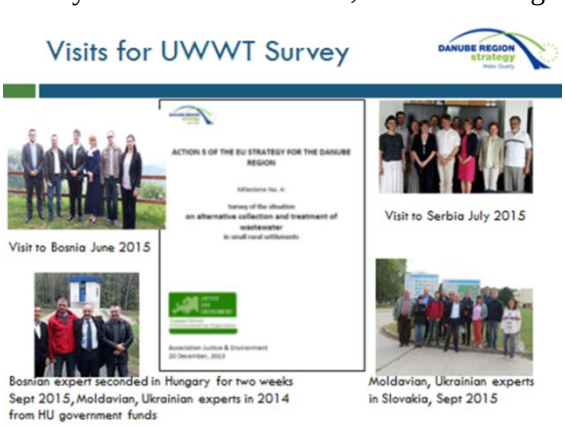
Continuous exchange of data, early warning mechanisms and discussion of problems are at place and ongoing in the frames of all bilateral water committees of Hungary and also operating within the Danube Transnational Monitoring Network.

In case of four **Trans Carpathian cities** (Munkachevo, Uzghorod, Hust and Bereghovo) information was obtained about outdated and/or improperly operating waste water treatment plants directly polluting the tributaries of the Tisza river. The plants were built in the Soviet era with outdated technology and limited capacities. Since the amount of wastewater is measured neither at the wastewater treatment plant, nor at any other parts of the networks, the volume of sewage loading can be estimated only. Following a workshop organized by the EUSDR HU NC in June 2015 and with his assistance, the related cities applied for a long term preferential EIB loan that in November 2015 was awarded by the Ukrainian government in the amount of 400 million EUR. Also, Ukrainian partners presented a project package of WWT Plants reconstruction that the Danube Strategy PA4 Steering Group awarded with a letter of recommendation in September 2015 and a EUSDR START project has started to harmonize their needs and to fit the plans to the EU regulations.

Risks and threats assessments situation in the salt mines of the Transcarpathian region

One example when immediate action was taken to alert in case of potential water quality problems in the Danube was the case of the Solotvyno salt mines in Ukraine. After a fact finding mission in summer 2015, the EUSDR HU NC found that it is mutual interest to improve the emergency in the area of salt mines taken into account the uncontrolled development of crisis management of the region. He then requested HU members of the European Parliament to enquire on the possible financial sources to be mobilized for assessing the environmental risk in Solotvyno Ukraine via a question to the EU Commission. In his answer Mr Johannes Hahn Commissioner for European Neighbourhood Policy & Enlargement Negotiations highlighted the EU Civil Protection Mechanism and the Hungary-Slovakia-Romania-Ukraine ENI CBC Programme besides the importance of effectively utilizing the framework of the EUSDR. As a result, a joint letter was sent to the European Commissioner for Humanitarian Aid and Crisis Management to ask for an EU expert risks sand threats assessment study. Considering the high impact and urgency of the situation Commissioner Mr. Stylianides declared in February 2016, that the Commission is planning a fact finding mission of EU experts as soon as possible.

To sum up, the active role of Hungary in the implementation of the EU's Danube Region Strategy and the cooperation of the five Tisza Valley countries for finding solutions for water related problems or UWWT Survey for Non-EU countries, are outstanding examples of effective international water cooperation.



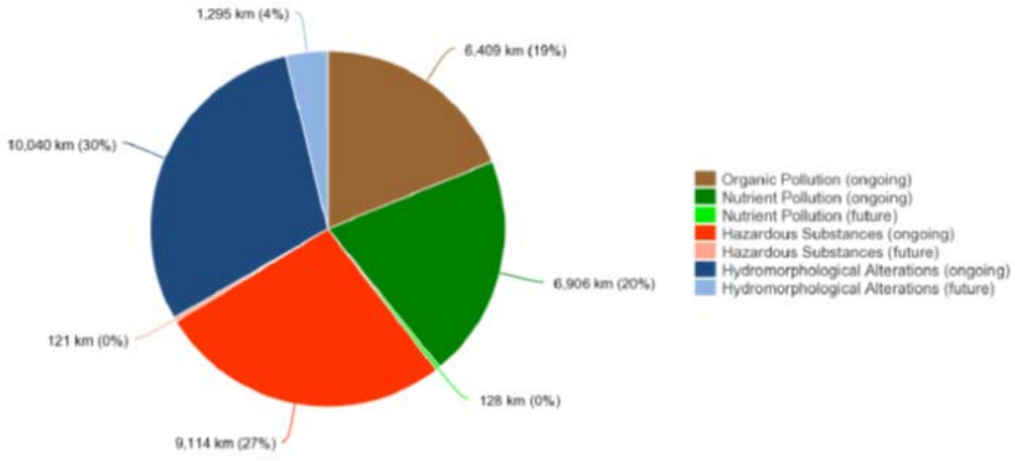
Lessons learnt

- In order to protect water ecosystems, to sustain the good water quality and to achieve effective water resource management (including flood risk management) of the Danube Basin, **Hungary is acting in many level of transboundary cooperation**. Hungary – among others - has important acting and leading role in international organisations, leading priority areas of the European Strategy for the Danube River with partner countries and managing bilateral committees with all of its 7 neighbours.

- Issues such as water quality or flood protection may not be treated most efficiently at national level only. Transnational cooperation is inevitable. Remedy for challenges arising from climate change shall also be found at regional level. The **regional approach is a useful tool for problem solving: the Danube Strategy is a platform to ensure cooperation between Danube countries related to water quality and it is also an effective platform to involve both EU and Non-EU countries for cooperation**. Priority Area Water Quality of the EUSDR is one of the priority areas with the widest scale of actions from implementing the Danube River Basin Management Plan to strengthening the cooperation at sub-basin level or boosting major investments in building and upgrading urban waste water treatment facilities.

- The **Danube is a good example where WFD- related work is coordinated through the entire basin by an international organization, the ICPDR that is a strong partner of EUSDR Priority Area Water Quality, responsible for 8 actions out of 14 of the EUSDR PA4 Action Plan.** The ICPDR successfully coordinates policy-related issues and among others, ensures the compilation of the River Basin Management Plans, recently the DRBM Plan -Update 2015. The DRBM Plan-Update 2015 includes updated assessment on the main pressures impacting the Danube basins water, updated information on water status and progress achieved, as well as the joint further actions agreed by the Danube countries to be undertaken until 2021.

Figure 4: Surface Waters (River WBs) - Risk of failure to achieve good surface water status by 2021 sorted by pressures



Source: Danube River Basin District Management Plan – Update 2015

- **Coherence and regular discussion** is inevitable among policy makers and experts. **Expert bodies are necessary** for continuous and systematic technical discussions, such as provided either in the frame of **bilateral water committee meetings** or at the different **ICPDR expert groups** or at

meetings of the **Danube Strategy Steering Groups**. Noted the importance of personnel involvement: in some cases the same water experts are members of the bilateral water committees and also the ICPDR experts groups, sometimes the same experts are representing the countries in the Steering Group of EUSDR that can further contribute to better understanding of the issues and solving problems at different levels.

- **Data collection and policy development** is crucial. An important example is the **Danube Sediment Management** - Restoration of the Sediment Balance in the Danube River (Acronym: Danube Sediment) proposal that was prepared by 24 partners from the Danube Basin.

- **Policy development can also be supported by regional development tools.**

- **Projects can give significant input** to the actions and/or can serve as a pilot activities or good samples relevant in basin wide scale. Moreover, the project consortia provide a unique platform for international knowledge and experience exchange.

- The ICPDR **Tisza Group cooperation** (aiming at improving sub-basin management of the Tisza River Basin) is an excellent showcase for country cooperation demonstrating that commenced by political support, statements of joint understanding of related governments, ensured financial support and technical assistance contributes to joint decision- making and the aligned efforts in forming into project consortiums and preparing strong project proposals are effective means of supporting sub-basin cooperation aiming at improving water quality.

- The **issue of financing** is a prerequisite of the work. EUSDR PA4 has collected information related to the **state of play of the operational programming in the Danube countries** to summarise how the EUSDR related activities are considered within the current financing period (2014-2020).

- It can be concluded that it is **crucial to guarantee on national level the implementation of the WFD and in transboundary scale to ensure funds and support** (labelled) projects. EUSDR PA4 will further assist in **providing information related to water financing and will offer networking platform for water projects and stakeholders**, such as it did in November 2015 in the Budapest Stakeholder Seminar.[11] The event provided a comprehensive cooperation platform and offered an opportunity for alignment of funding with cohesion policy instruments and other potential sources specifically for water stakeholders, aiming to improve the quality of waters.

From legislation to networking, either policy-making, project implementation or the alignment of funding there are large set of instruments available in the Danube Region to support countries in their tasks of improving the quality of waters for better river basin management and transboundary cooperation.

[11] www.danubewaterquality.eu/stakeholder-2015.