

GWP 'Meet Our Partners' initiative Tisza Office presentation

The Tisza Office of the Middle Tisza Water Directorate (KÖTIVIZIG) was ceremonially inaugurated on 4th November 2014 by the participation of Mr. Ivan Zavadsky, Executive Secretary of the International Commission for the Protection of the Danube River (ICPDR), Mr. István Joó, Danube Region Strategy Ministerial Commissioner (Ministry of Foreign Affairs and Trade), Mr. István Láng, Deputy Director-General of the General Directorate of Water Management.

As a background of the opening of the Tisza Office, in the period of the Hungarian EU Presidency in the first semester of 2011, a Tisza Conference was held in Szolnok Town Hall and a Tisza Declaration was adopted containing the relevant objectives and instruments.

The main task of the Tisza Office is the coordination of Tisza issues at national level in partnership with the ICPDR, the Secretariat of the Danube Region Strategy Ministerial Commissioner of the Ministry of Foreign Affairs and Trade, the River Basin Management and Water Protection Department of the Ministry of Interior, the General Directorate of Water Management, different departments of KÖTIVIZIG and with other Hungarian and foreign partners.



**4th November 2014, Szolnok
Official opening of the Tisza Office**

The 7180 km² operating area of the Middle Tisza District Water Directorate in Szolnok (briefly KÖTIVIZIG) is located in the middle part of the Hungarian Tisza section. Almost all of the area is plain at the Great Plain, including the majority of the county of Jász-Nagykun-Szolnok, the southern part of the Pest and Heves counties and the north-eastern corner of Bács-Kiskun County. Due to lowland circumstances, the specific density of water management facilities (canals, embankments, sluices) is twice as the national average.

As a water management organization, our most important task is the operation, maintenance and development of state-owned water management facilities (flood protection lines, dykes, flood reservoirs, inland excess water facilities, pumping stations, canals, irrigation facilities, etc.), as well as defense, and prevention of water caused damages. Our professional tasks include wide scale of water management related issues, including agricultural water supply in our area of operation.

Almost 56% of the Directorates area is threatened by floods, but the frequency of events related to inland excess water, and droughts and water scarcity is also significant. There have been four notable floods in the last two decades, which have exceeded the standard flood levels (1999, 2000, 2006, 2010). It also has an impact on the rise of flood risks, due to the duration of flood waves is also increasing.

Our organization supervises 707.1 kilometers of flood protection facilities, manages 4316.7 kilometers of canaly system, and operates water management facilities of national importance, such is the Lake Tisza and the irrigation water supply system from there, which is the country's largest water management system. We also have to mention the large flood reservoirs: Tiszaroff, Hanyi-Tiszasülyi and Nagykunság flood reservoirs, and the Zagyva reservoir reservoirs of Jásztelek and Borsóhalom. They have great impact on flood peak level mitigation. In order to operate them fully, it is essential to operate the Regional Laboratory. The role of the institute in agricultural irrigation water supply has very high significance, we supply around 50-70 million cubic meters of water to agribusinesses in the region.

Due to National funding resources opened after the accession of EU Membership, complex developments have been implemented in the area in the last decade (Jász-Nagykun-Szolnok, Pest, Heves) with a value of HUF 61 billion. It has great positive effects on irrigation facilities and inland water prevention and protection. We have been project partners and consortium-based project co-partners in the following international projects:

- JOINTISZA (As Co-Lead Partner together with the General Directorate of Water Management of Hungary). The Project implementation period was finished in September 2019
- FramWat
- RAINMAN
- Danube Floodplain
- IDES
- TEACHER-CE

Tisza Office is initiating and participating in the realisation of projects, coordinating the international relations of KÖTIVIZIG, it is responsible for the organization and realization of programs of incoming and outgoing professional delegations and providing translation and interpretation.

Together with the General Directorate of Water Management of Hungary (OVF), KÖTIVIZIG, including Tisza Office was responsible for the realization of JOINTISZA Project, which result is the Integrated Tisza River Basin Management Plan (ITRBMP). All of the Tisza countries (Ukraine, Romania, Slovakia, Hungary and Serbia) took part in the preparation and implementation of the project from 2017 to 2019.

In September 2019, representatives of the 5 Tisza countries signed the Tisza Memorandum of Understanding strenghtening the cooperation among the interested parties. In the Memorandum, Hungary offered the contribution of Tisza Office in Tisza-related international issues.

Projects managed by the Tisza Office

As a flagship project, the main aim of **JOINTISZA** (2017-2019) was to improve the status of waters of the Tisza River Basin. It focused on the interactions of two key aspects of water management — river basin management (RBM) and flood protection — while taking into account the relevant stakeholders who play a pivotal role in the Tisza RBM planning process. The vproject contributed to enhance the integration of water management and flood risk prevention planning and actions for the next River Basin Management planning cycle, in line with the relevant EU legislation. The project involved the joint efforts of five countries of the Tisza Basin (Hungary, Romania, Serbia, Slovakia and Ukraine) and international institutions as the International Commission for the Protection of the Danube River (ICPDR).



Tisza tree (*Taxus baccata*) planting in 'JOINTISZA Grove' of Szolnok

Finally, the main output of the project is the updated Integrated Tisza River Basin Management Plan and moreover the Tisza Memorandum of Understanding (Tisza MoU) signed by high level representatives of the concerned countries in September 2019 in Budapest.



Signing of the Tisza Memorandum of Understanding (Tisza MoU) by representatives of the five Tisza countries in Budapest, September 2019

Danube Floodplain (Reducing the flood risk through floodplain restoration along the Danube River and tributaries). The main objective of the project is improving transnational water management and flood risk prevention while maximizing benefits for biodiversity conservation. The expected change is improved knowledge, among the countries located within Danube River Basin, related to integrative water management through restoration of floodplains, combination of classical and green infrastructure, natural retention measures, involving all related stakeholders.



Stakeholders' forum of the Danube Floodplain Project in Szolnok

FramWat (Framework for improving water balance and nutrient mitigation by applying small water retention measures). FramWat aims to strengthen the regional common framework for floods, droughts and pollution mitigation by increasing the buffer capacity of the landscape. It will do so by using the natural (small) water retention measures (N(S)WRM) approach in a systematic way. So far, the majority of water management and flood protection measures lack innovation and follow more traditional approaches without taking into account valuable ecosystem services provided by nature in the landscape settings.



FramWat project meeting in Ljubljana

RAINMAN (Integrated Heavy Rain Risk Management). Heavy rain events are a major environmental risk in Europe: they can hit any location with only very short warning time. The devastating impacts of extreme rainfalls are the most significant natural risks in Central Europe. Every year people die, thousands lose their homes, and environmental damages like water pollution occur.

RAINMAN aims to reduce the losses in the natural and built environment caused by heavy rain. We support municipalities and regions to cope with the hazards of heavy rain and to mitigate heavy rain risks as far as possible.



IDES (Improving the water quality of the Danube and its tributaries, integrated management of floodplains based on ecosystem services). This project was initiated by the Catholic University of Eichstätt Ingolstadt in Germany.

IDES Project aims to add water quality targets to this effort and improve water quality by developing an integrative floodplain management based on Ecosystem Services (ES). The ES concept in the Danube region is actually not used to proactively manage different activities holistically. The use of a River Ecosystem Service Index in Germany has even shown that water management can be significantly improved by the identification of synergies between the various ES, which reflect the various sectoral interests and targets. The project implementation started in July 2020, the end-date is December 2022.

TEACHER-CE (Joint efforts to increase water management adaptation to climate changes in Central Europe). Climate change consequences are already visible in central Europe, and call for better risk management coordination. TEACHER-CE addresses this need by integrating and harmonizing results

of previously funded INTERREG, Horizon2020, and Life projects into the TEACHER-CE Toolbox. This tool will focus on climate-proof management of water related issues such as floods, heavy rain and drought risk prevention, small water retention measures and protection of water resources through sustainable land-use management. The direct local and regional implementation will help municipalities and regions in adapting their processes to the changing climate conditions.



Opening speech of Gábor Harsányi, Head of Karcag Branch Office at the TEACHER-CE stakeholder forum in Szolnok

Multilateral relations

The Directorate and inside in, the Tisza Office regularly organizes visits into the operational area of KÖTIVIZIG, these relations are often bases of further, project-based partnerships.



Experts' delegation from South Africa visited the Kisköre Dam



Dr. Mohamed Abdel Aty, Minister of Water Resources and Irrigation of Egypt and Mr. Ashraf Mohamed Mohieldin Elmoafi, Ambassador of Egypt in Hungary visited the Kisköre Branch Office (Attila Lovas, Director of KÖTIVIZIG and Lőrinc Fejes, Head of Kisköre Branch Office welcomed the right honourable guests)



Visit of delegation of the Moroccan Water Authority



Visit of a Serbian delegation in Szolnok co-organized by Mashav (Israel's Agency for International Development Cooperation)



Visit of US experts' and staff of the US Embassy of Budapest in Kisköre



Member of the Nigerian Senate visited the operational area of KÖTIVIZIG

How long has your organization been a GWP Partner, and why did you decide to join? (provided you were there when this happened)

Last year, KÖTIVIZIG participated in the 'Water Change Maker Journey' project announced by GWP, which was also useful for us because it helped to summarize, synthesize and rethink our international, including project activities, enabling directions for the development of these activities. Our Directorate has been cooperating with GWP Central-Eastern Europe for more than ten years, and since then our cooperation has deepened, covering many areas.

Of particular importance is the professional assistance we received during the implementation of the JOINTISZA Project and the support provided last year in the preparation of the application to be prepared and submitted by the countries of the ICPDR Tisza Group to be announced by the EU INTERREG Danube Transnational Programme in 2021.

We hope that the active and continuous cooperation between our organizations will be further strengthened in the future to the satisfaction of both parties.

What have you found to be the benefits of being a GWP Partner?

For us, the cooperation with GWP is a link to the global water policy issues, which enables us to learn about the latest trends and directions, and contributes to expanding our knowledge on water policy issues that strongly affect our region, be it water scarcity, cross-border water bodies or as a matter of common concern, pending an examination of the effects of climate change on water management.

What is the one challenge facing the management of water resources in your area of expertise?

To set the scene (2022) and assess the status of the Tisza River Basin by

- assessing the progress reached by the implementation of the Joint Programme of Measures (interim report describing progress in the implementation of the planned programme of measures following three years of the update of the ITRBMP 2019);
- assessing the quality of the Tisza River and its tributaries via implementation of the Joint Tisza Survey 2 (JTS2);
- assessing possible climate change impacts on transboundary surface and groundwater resources and management and develop case studies specific for the Tisza River Basin;
- assessing impacts of socio-economic developments in the Tisza River Basin on water resources and outline consequences in relation to water quality and water quantity management.

To set up a water-balance for the Tisza and its tributaries built on the outcomes of ICPDR water balance activity

- via calculating the water resource availability of surface waters – a) Current baseline situation assessment using the ICPDR method developed for the Danube Basin; b) Pi-lot study on determination of water scarcity and water sharing counter-interest indicators c) Pilot study on application of economic instruments in addressing counter-interests in allocation of scarce water resources;

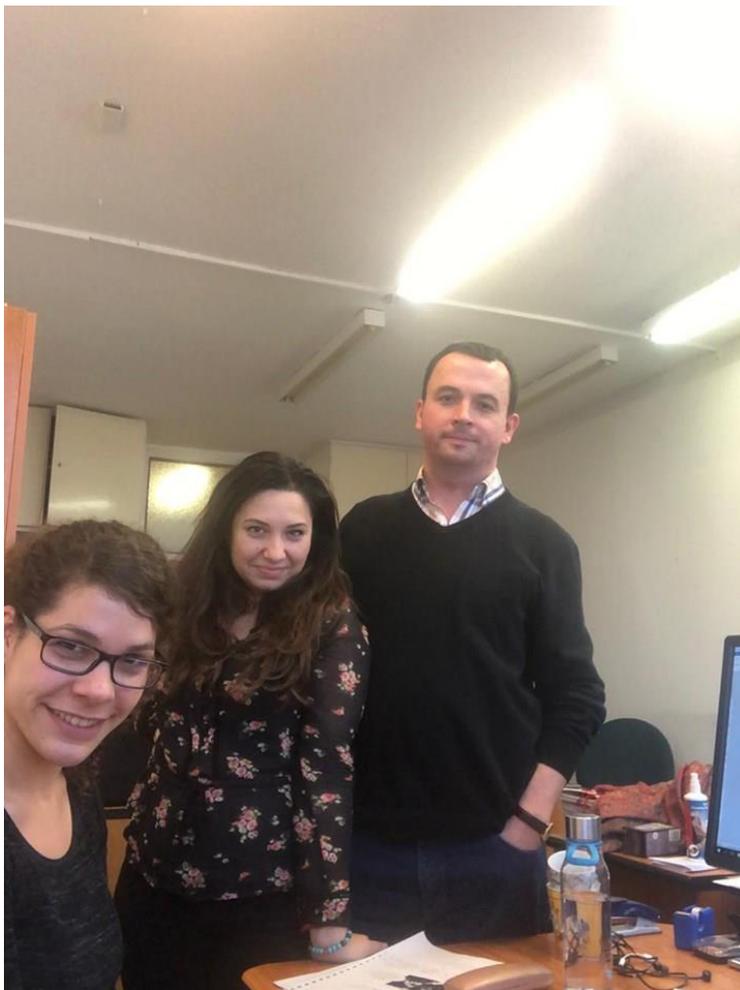
- via calculating the water resource availability of groundwaters;
- developing a pilot study to model possible challenges of water demands in case of effects of possible climate change scenarios.

To suggest policy recommendations towards a balanced water resource management for the Tisza River Basin and mitigation of impacts of flash floods, drought and scarcity taken into account the

- feasible climate change scenarios;
- actual legal background of the sub-basin (national and international context);
- the socio-economic developments (main stakeholders of the sub-basin) and
- possible climate change impacts.

Are there any special projects or initiatives that you would like more widely to be known?

We are currently working on the JOINTISZA 2.0 project, which contains a number of elements that can be used to strengthen the cooperation of the Tisza river basin countries in the field of water management, and through this we can also contribute to the overall improvement of the Central and Eastern European countries concerned.



The Tisza Office team: Judit Palatinus, Melinda Váci and György Rátvai