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Due to the Covid-19 situation, this is where most celebrations, activities and information sessions for Danube Day 2020 took place.

Donaueschingen, Germany: Beginning of the Danube proper and starting place of the Climate Ride highlighted within.

Kudelin, Bulgaria: Point of departure for the GWP CEE’s Danube Kayak Expedition along the Bulgarian stretch of the Danube.
Dear readers,

Climate change and environmental degradation are an existential threat to Europe and the world which requires drastic steps coupled with extraordinary levels of cooperation. Here I would like to emphasise that the Sava Commission and our partner river commissions are a remarkable example of cooperation in the Inland Waterway Transportation (IWT) community. This cooperation is based on a joint spirit and common understanding of ensuring the future of cleaner, healthier and safer waters by combating negative climate change effects on river transport, as well as the rivers themselves and their environment.

To avoid significant expenditures and damages to the environment, it is evident that policy makers and general stakeholders should address climate change issues as a matter of urgency. A clear understanding of the potential impacts, risks and vulnerabilities appears to be a prerequisite for the design and construction of resilient and sustainable transport infrastructure. Its improvement should not be a threat to the environment, but an opportunity to protect and improve the environmental functioning of our highly valuable riverine ecosystems. This perspective is further highlighted in and supported by the ICPDR’s latest Significant Water Management Issues (SWMI) overview for 2020.

Analysing further, the attitude towards climate change and the preservation of the riverine ecosystem boils down to changing the mindset of ourselves, the engineers, the ecologists and all the experts involved in this process: taking a common position toward a higher goal - nature conservation for all future generations, in these turbulent times, is a supreme goal. Back to back, united against a common challenge, we are creating the know-how of green and sustainable IWT in an era when nature places new demands on us, unable to absorb the mistakes of the human race that have significantly changed and weakened it.

The ICPDR, the Danube Commission and the Sava Commission are ensuring that environmental protection and river engineering go hand-in-hand through the facilitation of the “Joint Statement on Guiding Principles on the Development of Inland Navigation and Environmental in the Danube River Basin” follow-up process. This work is often very transportation-focused – as is the case with the Sava Commission – or done in a more cross-sectoral way – as seen with the ICPDR. Both organisations recognise the importance Inland Waterway Transport has to the livelihoods of those living in the Danube River Basin, and see its sustainable future as vital. To this end, a continued evolution of the process with even closer interaction with stakeholders in the basin is expected.

Finally, let me proudly refer to the 15 years of the Commission I have chaired. The Sava Commission is the only European river commission that deals both with water management and navigation. This is a great responsibility, with very significant and measurable results that have been achieved in all fields of action.

Duška Kunštek, is Chair of the Sava Commission, Assistant Minister, Head of Directorate for Inland Navigation, Croatian Ministry of the Sea, Transport and Infrastructure

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Danube Watch is the official magazine of the ICPDR, the International Commission for the Protection of the Danube River. Danube Watch enhances regional cooperation and information-sharing on sustainable water management and environmental protection in the Danube River Basin. It reports on current issues affecting the Danube Basin, and on action taken to deal with challenges in the river basin. Striving for scientific accuracy while remaining concise, clear and readable, it is produced for the wide range of people who are actively involved in the Danube River Basin and are working to improve its environment.

The ICPDR accepts no responsibility or liability whatsoever with regard to information or opinions of the authors of the articles in this issue.
News & Events

EU Announces Three Public Consultations On Climate Action

*Three online public consultations being run by DG CLIMA are currently underway, focusing on three essential actions by the EU aimed at tackling and adapting to climate change, in the framework of the EU’s New Green Deal.*

This initiative aims to engage all parts of society in climate action, hoping to gather views from a broad range of people and organisations across the EU – from national, regional and local authorities to businesses, unions, civil society organisations, educational institutions, research and innovation organisations, consumer groups and individual citizens. The ICPDR’s own Strategy On Adaptation To Climate Change has already put us at the forefront of addressing the serious threat Climate Change poses to transboundary river systems.

As a leader and pioneer among transboundary river basin commissions in responding to climate change, the ICPDR adopted the first ICPDR Strategy on Adaptation to Climate Change in 2012. Climate change poses a serious threat to our ability to manage our water resources in the Danube River Basin. In response, the ICPDR updated its Strategy on Adaptation to Climate Change in 2018 based on the most recent research in the field.

River Blue Film Screening (Postponed)

Vienna, 14th September 2020 - “Ciné-ONU Vienna” planned a screening of the documentary film, RiverBlue by David McIlvride and Roger Williams at Vienna’s Topkino.

RiverBlue discovers the toxic side effects of textile production and jean manufacturing on some of the world’s largest rivers. Travelling from tanneries along rivers in India, to some of the largest jean manufacturing factories in China, renowned river advocate, Mark Angelo, guides us through the declining health of these important waterways. More information: [http://riverbluethemovie.eco/](http://riverbluethemovie.eco/)

This event however, was ultimately postponed due to continuing concerns regarding the COVID-19 pandemic. Panellists for discussion after the screening were planned to be Ivan Zavadsky- Executive Secretary, International Commission for the Protection of the Danube River (ICPDR), Stefanie Erhartmaier- Co-Head Fashion Department, WearFair +more and Martin Nesirky- Director, United Nations Information Service (UNIS) Vienna, who would have acted as moderator. The event is currently earmarked to be rescheduled for a future date.

“Ciné-ONU Vienna” is part of a Europe-wide initiative of regular film screenings of UN related topics followed by podium discussions with invited guests who were part of the film making process or are experts in the topic covered by the film. The United Nations Information Service (UNIS) Vienna is honoured to have “Ciné-ONU Vienna” partner with this human world (THW) film festival and Top Kino for the regular film screenings in Vienna.
Danube Day 2020: “Discover Danube!”

Vienna, 29th June 2020 - Danube Day 2020 moved online this year, due to the uncertainty, necessary border-closures and quarantine measures stemming from the global COVID-19 pandemic. Under normal circumstances, on the 29th of June we would invite almost eighty million people in the 14 Danube countries to celebrate Danube Day, and learn about and experience the waters of the world’s most international river basin.

This year, most public events were cancelled throughout the Danube River Basin so the celebration of the River Danube was a little different and the public were able to #DiscoverDanube online. The variety of online activities that took place included games, a one-off website, online talks, video conferences, shareable short films and special articles in place of physical events.

Danube Day celebrates the Danube and the rivers that flow into it, and the vital role they play in providing water, food, power, recreation and livelihood. Danube Day commemorates the anniversary of the signing of the Danube River Protection Convention in Sofia, Bulgaria, in 1994. Even during a pandemic, when our cities, societies and lifestyles are being interrupted, preserving our most precious resource – water – never stops being a top priority.

The President of the ICPDR in 2020, Dorin Andros of Moldova, said: “It is of no surprise that we continue to celebrate the strength and vitality of our Danube family on the 29th of June as we do every year, even amidst a pandemic unlike anything we have seen before. The ICPDR and our partners throughout the Danube Region have always shown exemplary strength in working together to make Danube waters healthier, not to mention prepared for climate change. This year is presenting a new challenge however, calling for newer solutions and an increased sense of ‘digital solidarity’ – and we are meeting the challenge magnificently”.

NextGenerationEU: State of the Union Address Reveals New Green Funds for the EU

Vienna, 17th September 2020 – At yesterday’s State of the Union address, Ursula von der Leyen – President of the European Commission – outlined a vision for Europe to emerge stronger than ever from 2020’s pandemic crisis. NextGenerationEU is a new kind of recovery plan; a once in a lifetime opportunity for change, with a focus on becoming green, digital and more resilient.

"37% of NextGenerationEU will be spent directly on our European Green Deal objectives”, stated President von der Leyen at the European Parliament in Brussels. "I want NextGenerationEU to kick-start a European renovation wave and make our Union a leader in the circular economy".

The Next Generation EU recovery is going to be essential for the EU to reach its target to cut emissions by 55%, first envisaged by the European Green Deal proposed by the commission back in December 2019.

The announcement this week re-emphasises the aims of the Green New Deal and other environmental aims of the European Union, which have already been the focus of various projects run in partnership with the ICPDR, funded by the EU’s Danube Transnational Programme.

To read more about the European Green Deal and what it means for the Danube River Basin and the ICPDR, see our article in this edition on pages 6-7 which focuses on exactly that.
The ever-looming threats that climate change and environmental degradation pose to humanity globally cannot be denied or ignored if we are to survive on this planet. New approaches and strategies must be developed and embraced globally. To this end, the European Union is working to transform its economy into something more modern, resource-efficient and competitive. The European Green Deal is the plan to make the EU’s economy sustainable.

This EU green economy, as laid out in the European Green Deal, will have no net greenhouse gas emissions by 2050, it will decouple economic growth from resource use, and it will move forward as a united force: bringing every person and place in the EU into the future. This can be done by turning climate and environmental challenges into opportunities, and by making the transition just and inclusive for all.

Goals
There are many goals within the EU Green Deal. For example, clean energy will be pursued with the idea of prioritising energy efficiency, developing a power sector based largely on renewable resources, securing an affordable EU energy supply and having a fully integrated, interconnected and digitalised EU energy market. This will be achieved through a revision of the Renewable Energy Directive, the Energy Efficiency Directive and the Directive on Energy Performance of Buildings, and through a legislative proposal to address methane emissions in the energy sector, revision of the regulatory framework for competitive decarbonised gas markets and revision of the Energy Taxation Directive.

Moving toward sustainable industry is also key. Essential points of this policy include boosting the modern aspects of industries, influencing the exploration and creation of “climate neutral” circular-economy friendly goods markets as well as discouraging production of single-use materials. Importantly, this also entails the decarbonisation and modernisation of energy-intensive industrial materials such as steel and cement.

Housing and transportation issues are also addressed. The future of housing is partly set out via a plan for a new “European Bauhaus” – a co-creation platform for architects, engineers and designers aiming to create greener architecture to push down emissions. Transportation will be addressed through revising the Directive on Intelligent Transport Systems and the Directive on Deployment of Alternative Fuels Infrastructure as well as changing regulations setting CO2 emission performance standards for cars and light commercial vehicles and legislative proposal on development of post-Euro6/VI emission standards for cars, vans, lorries and buses.

The ‘From Farm to Fork’ strategy seeks to implement solutions to the issue of food sustainability while supporting farmers and fishermen. The EU will seek to push methods of production and transport of these foodstuffs in a climate-friendly approach, hoping to increase efficiency as well. Set targets include decreasing the use of chemical pesticides, increasing the...
availability of healthy food options and helping consumers to better understand the health ratings of products and sustainable packaging.

**Action**

The European Green Deal is not simply high rhetoric or empty words; the Deal provides an action plan which entails boosting the efficient use of resources by moving to a clean, circular economy as well as restoring biodiversity while also cutting pollution. Furthermore, what investments are needed and where as well as available financing tools are both outlined to provide a clear picture of the journey ahead. It also explains how to ensure a just and inclusive transition: a very important aspect of work to be done.

The EU has set the goal to be climate neutral in 2050. In order to achieve this, and to reflect the seriousness of this goal, a European Climate Law has been proposed. This would turn this political commitment into a legal obligation. That is not to say that this obligation will be imposed without foresight; The EU will also provide financial support and technical assistance to help those that are most affected by the move towards the green economy. This tool is called the Just Transition Mechanism, and it will put at least €100 billion to work over a six-year period from 2021-2027 in the most affected regions.

**Public Involvement**

Alongside government policies and regulations, there is a role to play for citizens, communities and organisations in all sectors of our society and economy. The European Climate Pact aims to give citizens and stakeholders a voice and role in designing new climate actions, sharing information, launching grass-roots activities and showcasing solutions that others can follow. With climate change impacts already here now, impacting people, the planet and prosperity pervasively, the recovery from the current crisis will be an opportunity to make our society more resilient.

As part of the European Green Deal, the Commission will put forward a comprehensive plan to increase the EU’s 2030 climate target in September this year. The plan will propose to increase the EU’s current 2030 target of at least -40% greenhouse gas emission reductions to at least -50% and towards -55%, compared to 1990 emission levels. The Commission has invited all stakeholders and citizens to submit views on the EU’s 2030 climate ambition increase and the action and policy design necessary for deeper greenhouse gas emission reductions as well as the EU’s new strategy on adaptation to climate change. The input from the open public consultations will be used to shape the Pact ahead of its launch.

**ICPDR and Climate Change Initiatives**

The aims of the Green New Deal and other environmental aims of the European Union have already been the focus of various projects run in partnership with the ICPDR, and funded by the EU’s Danube Transnational Programme.

This is partly reflected by the first Strategy on Adaptation to Climate Change from 2012 and its 2018 updated version. The ICPDR Strategy on Adaptation to Climate Change seeks to offer guidance on the integration of climate change adaptation into ICPDR planning processes. Further, it promotes multilateral and transboundary cooperative action in the context of climate change adaptation and serves as a reference for national policy makers and other officials.

Additionally, the EU Strategy for the Danube Region (EUSDR) shows how cooperative frameworks and existing institutions that help Member States to implement EU legislation, like those to come out of the EU Green Deal, can be strengthened and supported. Close cooperation with the ICPDR with its experience and mandate in water management is therefore very important.

The ICPDR’s wealth of experience in matters of climate change adaptation, transnational and inter-organisation cooperation, member state support and public involvement will prove to be eminently useful in helping to direct and progress the plans put forward in the EU Green Deal. The ambitious goals laid out will also go a long way to protect the Danube, and to encourage its sustainable use: making ICPDR’s, and the EU’s goals ever more attainable.

**Timeline of the European Green Deal**

- **17 September 2020**
  - Presentation of the 2030 Climate Target Plan
- **8 July 2020**
  - Adoption of the EU strategies for energy system integration and hydrogen to pave the way towards a fully decarbonised, more efficient and interconnected energy sector
- **20 May 2020**
  - Presentation of the EU Biodiversity Strategy for 2030 to protect the fragile natural resources on our planet
- **20 May 2020**
  - Presentation of the ‘Farm to fork strategy’ to make food systems more sustainable
- **11 March 2020**
  - Proposal of a Circular Economy Action Plan focusing on sustainable resource use
- **10 March 2020**
  - Adoption of the European Industrial Strategy, a plan for a future-ready economy
- **4 March 2020**
  - Proposal for a European climate law to ensure a climate neutral European Union by 2050. Public consultation (open until 17 June 2020) on the European Climate Pact bringing together regions, local communities, civil society, businesses and schools
- **14 January 2020**
  - Presentation of the European Green Deal Investment Plan and the Just Transition Mechanism
- **11 December 2019**
  - Presentation of the European Green Deal
The Sava River is the largest tributary in terms of discharge, and the second largest in terms of catchment area, in the most international river basin of the world shared by 19 countries: the Danube River Basin.

The history of the Sava Commission goes back to early 1990s, when changes in the political landscape of the Western Balkans triggered the establishment of the Stability Pact for South Eastern Europe, which, in June 2001, supported the launch of the Sava Initiative. The negotiations under its umbrella paved the way for speedy negotiations amongst the newly independent states of Slovenia, Croatia, Bosnia and Herzegovina and Serbia for the Framework Agreement on the Sava River Basin (FASRB), signed in December 2002. As a result of these quick and successful international processes, the International Sava River Basin Commission (ISRBC), or, as it is better known, the Sava Commission, was established over the course of the 27th-29th of June 2005.

The International Sava River Basin Commission celebrates 15 years of successful management of the Sava River Basin.
In the 15 years since that time, the Sava Commission has facilitated and supported progress in establishing flood risk reduction systems, developing sustainable navigation systems and pushing for the development of the first Sava River Basin Management Plan; just to name a few key achievements.

Since its establishment, the Sava Commission has adopted a handful of protocols, namely the Protocol on Navigation Regime, the Protocol on Flood Protection, the Protocol on Prevention of Water Pollution Caused by Navigation and the Protocol on Sediment Management, which extended the regulatory framework of the FASRB in a systemic way.

In addition to legislative, policy development and technical work, the Sava Commission has paid special attention to the development of sustainable tourism, foreseeing the huge development potential of the Sava River banks for cycling with intermodal arrangements (bicycle/train/boat) crossing borders from its source to its mouth.

The ICPDR, together with our sister Danube Commission – responsible for navigation on the Danube River - is proud of the real result of this cooperation: the development of the Joint Statement on Guiding Principles of the Development of Inland Navigation and Environmental Protection in the Danube River Basin. This guiding document for the maintenance of existing waterways and the development of future waterway infrastructure brought about several good practices projects, balancing the interest of the development of inland navigation with the need for environmental protection and restoration. Its implementation, regularly moving forward and cultivated by yearly meetings of key partners and stakeholders, is another example of joint activity bringing benefits to both the navigation sector as well as the implementation of the EU WFD.

Cooperation between our two Commissions has the important effects of cross-fertilisation and inspiration. For example, the Sava Flood Forecasting and Warning System inspires the work on the Danube Hydrological Information System. The DRB Adaptation Strategy stimulated development of the Outline of the Climate Adaptation Strategy for Sava River Basin. Danube Day, being celebrated on the 29th of June and Sava Day, celebrated on the 1st of June, are further examples of this mutual interaction and connection.

Another example that deserves praise is the establishment and subsequent activities of the Sava Youth Parliament - a body comprised of, not only the Commission’s future stakeholders, but also the future managers of the Sava Basin and guardians of the Sava River and its environmental values and ecosystem services, which the Parliament nurtures.

Cooperation between the ICPDR and the Sava Commission is an outstanding example of the principle of a subsidiarity addressing the special needs of a large international sub-basin while expanding on the achievements of its larger partner, the ICPDR. The Sava Commission, from the very beginning of its existence, has not only brought in numerous results and tools for improved water resources management, navigation and sustainable development, but has also shown the key essence of management for transboundary rivers and basins in practice – mutual trust, cooperation and solidarity.
Despite the significant progress across Europe towards achieving good ecological and chemical status of freshwaters as required by the EU Water Framework Directive, there is still a lot of work to be done in order to achieve a better status of fauna and flora, as well as favourable hydrological and chemical characteristics. Various types of measures listed under the name Natural (Small) Water Retention Measures (N(S)WRM) can have significant positive effects on solving environmental problems such as hydrological extremes, nutrients’ transport and decreased biodiversity.

**FramWat project**

The limited implementation of the natural (small) water retention measures (N(S)WRM) across the whole region negatively affects the vulnerability of environmental resources (water, biodiversity and soil) to climate impacts (frequent severe floods and droughts) and man-made pressures. Therefore, nine partners from six Central European countries in a framework of the FramWat project (Framework for improving water balance and nutrient mitigation by applying small water retention measures) developed a practical guidance for planning Natural (Small) Water Retention Measures (N(S)WRM) in the river basins.

The main aim of a 3-year long (2017 – 2020) FramWat project, funded by Interreg Central Europe, was to support and boost knowledge on more systematic approaches towards the application of N(S)WRM in river basins. Limited integration of N(S)WRM in river basins and flood risk management is primarily a consequence of the lack of a knowledge base and tools for planning, assessing and implementing the multiple benefits of such measures at the river basin scale. The primary focus of the FramWat project was therefore to increase the skills and capacities of water authorities and the related stakeholders for the sustainable use of landscape, and to develop an innovative systematic approach to support the implementation of N(S)WRM.

**Step-by-step guide to the application of N(S)WRM in river basins**

The Guidelines address the knowledge gap and issues related to the integration of N(S)WRMs into the third cycle of river basin management plans in line with the Water Framework Directive (WFD). The target groups of the guidelines are decision-makers, experts and stakeholders involved in the design and implementation of N(S)WRMs as part of plans and programmes addressing cross-cutting water management, climate change, biodiversity, forestry, agriculture and land use issues.

The added value of the Guidelines is the fact that it is based on the analytical work of the FramWat project and coordinated testing in real pilot catchments in six countries in Central Europe. The Guidelines offer a connection with all important outputs developed within the FramWat project, best practices from participating countries and practical recommendations from pilot catchments through the 5-step process of N(S)WRM planning:
Decision Support System for planning of Natural (Small) Water Retention Measures

In order to support the 5-step approach, FramWat partners developed the Decision Support System for planning of Natural (Small) Water Retention Measures which introduces and integrates access to different FramWat tools. It was created for people involved in planning water retention measures to mitigate the effects of drought, floods and surface contamination by biogenes. The goal of the application is to familiarise the user with the catalogue of N(S)WRM and the planning process, as well as to survey their preferences for their area of interest. Part of the DSS is the N(S)WRM planner which facilitates the inclusion of local stakeholders’ preferences for planning measures in the field of water retention. It is helpful in data preparation, and necessary for developing a concept plan and estimating the investment risk.

New Guidelines are well-timed for decision-makers with appropriate tools to incorporate N(S)WRM into the river basin management plans for 2022-2027. They offer guidance and raise awareness of the importance of the horizontal integration of different planning frameworks.

Green infrastructure will play a vital role in economic recovery from the coronavirus pandemic. A recently approved recovery instrument offers an opportunity to solve heritage from the past regarding environmental burdens, fix current lack of water supply and sanitation and look ahead to the implementation of structural reforms, facilitation of innovation and support of climate-proof solutions. Not all the priorities are directly connected to water, although water is an important connector, particularly with respect to climate change.

The Guidelines highlight the importance of stakeholder involvement and social capital for the successful uptake of N(S)WRMs. The pilot actions benefited from a bottom-up approach and the cross-sectoral cooperation of agriculture, forestry, fisheries, tourism and civil protection sectors.

The Guidelines are among the most important outputs of the FramWat project. They connect and summarise all other outputs in a holistic way. The publication is therefore a must-read for anyone interested in river basin management or land use planning. For more information on these documents, please contact:

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Due to the various restrictions on public gatherings throughout the Danube River Basin as a result of the global COVID-19 pandemic, many of this year’s Danube Day celebrations were shifted, and the public invited to #DiscoverDanube online!

Although it wasn't intended, our motto still fit the situation, and our partners throughout the Danube River will be continuing to educate and inform you all about the Danube River, and will remain happy to answer any and all queries you may have. Our partners all remain involved in Danube Day 2020, so please don't hesitate to get in touch with them or us.

Find out more about Danube day events here: www.danubeday.org and on page 24-25 in the fold-out map.
Discover Danube!

DANUBE DAY

2020

JUNE 29

ICPDR IKSD
International Commission
for the Protection
of the Danube River
Internationale Kommission
zum Schutz der Donau
Gold Hunting
When Time Spent in the Water Pans Out:

We already know that the Danube and its tributaries are valuable treasures. But could it be that the Danube is littered with actual treasure? There is gold in the Danube. From tiny flecks to small grains (and very occasionally larger pieces), hiding in the sediment under certain stretches of the river's waters lies a sprinkling of gold. Let's dive into the story of Danube gold and those who still hunt for it today.

A Golden History
There are stories that the Celts would go to the tributaries of the Danube in search of gold, although the high-water mark of gold gathering in the Danube came under the Romans. Hunting for gold in the river continued thereafter with a method called “panning” (using a large metal pan to agitate gravel from the river bed with a generous amount of water so that the gold particles, being more dense than the other material, settle to the bottom of the pan. The lighter material such as sand, mud and gravel are then washed over the side of the pan, leaving the gold behind). This is a common method used by gold-hunting hobbyists to this day.

Gold-panners were already on historical record around Linz in the 15th century, and the following century would be very productive for gold collecting from the Danube River Basin. By the 18th century, it is estimated that from the Danube main stem and the Inn river, as much as 50 grams of gold was being found in the riverbed annually. Also estimated is that between the 15th and 18th centuries, a total of 20 kilograms of gold was panned out of these sources.

With the colonisation of the Americas by European powers, and the subsequent discovery and mining of gold there, mining gold in the region of the Danube River Basin became ever less profitable. Even panning for gold in the rivers and streams became unprofitable by the 19th century for all but a few private gold-hunters. However, there was still gold to be found, and in 1924 in Austria, 40kg of gold was collected from various sources (mostly mining).

It is still possible to find gold nuggets or grains, although gold specks and dust are far more common these days. The number of larger gold nuggets found around the Danube has decreased over the years, in large part because hobbyist gold-hunters largely use very similar techniques to those historically used over centuries – such as panning – rather than larger-scale methods which would result in gold nuggets, and which have since fallen out of use.

Sources Today
The tributaries of the Danube are especially favoured by modern-day gold-panners. Along the river Enns, from the town of Steyr to where it meets the main arm of the Danube, it is estimated that there is an average of 0.14 grams of gold per ton of gravel. In certain areas though, this concentration could also be over 2 grams per ton. Gold is to be found here largely because its gold-containing banks are being slowly eroded by the Enns, thus allowing the precious metals contained within to enter the river and mix with the sediment below.
For the main arm of the Danube itself, it is thought that the origin of its gold may not be from deposits high up in the mountains brought down by streams, but rather from glacial shifts long ago. These shifting glaciers may have exposed and loosened gold deposits which would have fallen out much later. The same may very well be true for the Enns and other Danube tributaries.

How To Pan
According to the amateur “professionals”, to pan for gold you need to take a gold-pan to a river or stream – simple so far. Most alpine rivers that flow into the Danube have a “gold-sand area” found at bends in the river where sandy sediment is pushed out of the water by the flow. To find the gold, you must scoop some of the sand into the pan with water and move this mixture around in a circular motion, carefully allowing the sand to spill out over the edges. Because the gold is heavier, it should remain in the pan. Finally, with a horizontal pendulum-motion, the gold dust can be separated from the remaining material. This is a very simplified idea of what it takes to pan for gold. The work is hard and requires patience and endurance. One gold-panning enthusiast’s estimate was that for every gram of gold dust taken out of the Danube and most of its tributaries, 4,000 pans of material would have to be sifted as described above. A regular hobbyist in the Danube River Basin can expertly pan through 20kg of sand and sediment in about one minute, and likely come away with a few gold flakes each time.

The reality is that there is no big win to be had. Weighing the work to pay-out shows that this work is not going to pay the bills; but for the regular hobbyist it is eminently enjoyable. In fact, hunting for gold is not just for dedicated hobbyists, or even just adults. The search for gold in and around the rivers of the Danube Basin is a big attraction for many, and adds to tourism in these areas. Some places offer courses on the history of panning for gold around the Danube as well as how-to lessons on panning itself. With gold-flakes easy to come away with after a little effort, the results are exciting (if not exceptionally valuable) for participants. Add to that the main element that attracts long-time hobbyists – time spent in nature and around the beautiful rivers of the region – and the result is a unique experience.

Author: Jake Friedly
has been the freelance editor of Danube Watch since 2019. He holds a joint-Masters degree in Global Studies from the University of Vienna and Leipzig University. Born in the American west, he has actually tried his hand at panning for gold in former gold-rush territory – where dreams of riches sadly eluded him.
Climate Ride: Cycling 800 Kilometres Along the Danube to Raise Money for Climate Action

How to fundraise for Climate Change? Doing a “cycling challenge” seemed a great way of showing commitment, offering a great conversation starter, and doing it with a means – the bicycle – that we as a society still underutilise. The Climate Change crisis – in how it relates to our over-exhaustion of planetary resources so closely linked to the causes of the pandemic – won out as the core purpose for the ride.

ClimateRide.org organises these, but COVID had done away with the idea of participating in something that was organised by others. No big group gatherings anymore, whether in one room or along one ride.

The numbers reflect our ambition – “EightToOne”: the ride covered 800 km, riding for 7 Days, resting 6 Nights, writing 5 Blog Entries, on 4 Wheels (2 bicycles), using 3 means of transportation (in addition to 800km covered by bike, we used trains and boats); all of this bringing 2 generations together, along this 1 magnificent river.

Why the Danube? The Danube, while in good hands with the International Commission for the Protection of the River Danube (ICPDR), nonetheless faces huge climate related challenges – as documented by ICPDR through its Climate Change Adaptation Strategy: www.icpdr.org/main/activities-projects/climate-change-adaptation

Day 1: Sunday August 23: From Donaueschingen to Rieslingen – 128km @ 21.6km/h, 7:15 hours

Stunningly beautiful is the only adjective that seems fitting to the Upper Danube valley, and no, I am not exaggerating. Cycling along the river, finding both agriculture and nature parks along the way, we were constantly stunned by yet more pieces of natural or man-made beauty.

Along today’s path, we saw pretty much everything that water resources management has to offer in terms of challenges: regulating stream flow, irrigation, water protection zones, various mills and other machinery generating electricity from water, two wastewater treatment plants (a nice new one and a stinky old one) and water used for recreation and ecological rejuvenation projects along parts of the Danube.

Day 2: Monday August 24: From Riedlingen to Dillingen – 127km @ 21.4km/h, 7:30 hours

I had not realised that there are places where the Danube looks like the Amazon – slowly moving, surrounded by what seems like the Swabian version of “jungle”. Waterlillies, spatterdock – in the Danube? Really? Well, the “nature paths” we cycled showed us the GREEN side of the Danube. All along the Danube here practically not a soul other than us, the occasional walker or hiker, an odd cyclist or two, but other than that – nature pure.

Day 3: Tuesday, August 25: From Dillingen to Ingolstadt, 100.14 km @ 21.4km/h

Donauwörth is what is called a “Sponge City” – having protected its old town from flooding through 6.5m high gates. By integrating water-permeable materials with a sponge-like structure and through smart planning of water areas, they allow the
ground to absorb water. This does not just prevent floods; in warm temperatures, especially in summer, the ground emits water step by step and provides – in combination with the wind – a very comfortable micro-climate.

**Day 4:** Wednesday, August 26:  
From Ingolstadt to Regensburg and Passau, 85.6km @ 21.9 km/h, 3:53 hours

Today we cycled over bridges – bridges, bridges and bridges. The Danube features, not surprisingly, hundreds of bridges. From a cycling point of view, all this bridge business can be a bit of a nuisance, usually involving narrow and tight ups and downs and often not-easy-to-manoeuvre pavement. But there are upsides. As we criss-crossed the Danube and some of its little side-arms, we could stop and check out the fish. Fish love bridges, it seems, because of the shade they give and since they slow the river’s current. Just looking down, we could see fish hopping about – many different ones, small and large. It turns out that the Danube river basin is home to numerous species such as pike, zander, huchen, catfish and many more!

**Day 5:** Thursday, August 27:  
From Passau to Linz, 89.2km @ 25.7 km/h, 5:45 hours

We had been warned about “hordes” of vacation-cyclists, crowding the bike paths along the Danube. But on the Northern Path – with a few exceptions, we had it pretty much for ourselves. Having said that, the path does not go “all the way” – there are two stretches along which there is literally no space for anyone to walk, cycle or drive made up of steep walls and vegetation. What to do? Another bridge? No: the ingenious Austrians have set up ferry-services to cater to both walkers and (mostly) cyclists. Neat little mini-barges that will take you along the Danube, for the five to ten minutes that you need to cover the few kilometres without a path... for the steep fare of 4 Euros a pop.

**Day 6:** Friday, August 28:  
From Linz to Melk, 119.9 km @ 23.4 km/h, 6:10 hours

South of Linz, there is only one path along the Danube, the “Northern Cycle Path”; along the southern side of the river, there is no space – it is completely taken up by industrial harbour structures and by industrial plants. The biggest of them belongs to Voestalpine, Austria’s largest Steel producer and single largest CO2 emitter, accountable for about 10% of Austria’s total CO2 emissions. We cycled by a huge Voestalpine poster and reminded ourselves that steel and rivers belong together in some way; the rivers are needed to bring key resources, including coal for the smelting processes, to provide water for cooling and to transport steel plates further on, once produced. Voestalpine, as per their own declarations, is trying to look ahead, though: the European “Green Deal” will require them by 2050 to produce CO2 free.

**Day 7:** Saturday, August 29:  
From Melk to Vienna, 151 km @ 25.4 km/h, 7:48 hours travel time and 5:55 hours in the saddle... YES, we did it! 801 kilometres completed.

Today, we again came across the sign “Klimabuendnis”, put right underneath several town signs, visible to anyone crossing their boundaries. So this is interesting: the “Klimabuendnis” or “Climate Alliance” is an association of some 1,800 towns and municipalities across 26 European countries – and members joining the group commit to reducing CO2 emissions by 10% every 5 years, to implement measures in energy conservation, energy efficiency and in using renewable energy. Austria has a very activist outfit that woos many smaller villages and counties to join, explaining the strong uptake here.

**Conclusion**

As we cycled, we learned, and we talked about what we learned. ClimateRide.org – the organisation under whose auspices we organised the challenge – is all about “human powered activity”. And indeed, there is a certain magic to this. Quoting ClimateRide.org’s mission statement, I note that yes: We are all feeling concerned, anxious or overwhelmed by climate change. The threats to our world are numerous and growing more complex each day. While so many – in particular young people – care deeply and want to help address the problem, the enormity of the challenge and the political tone around climate change can feel dispiriting and disempowering. Our Danube Climate Ride offered us the chance to take on a challenge much bigger than ourselves – and to share our journey with our personal networks, helping to amplify support and reaffirming friendships and connections, all the while fundraising for climate change action.

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**By Monika Weber-Fahr and Jan Volkemer**

Read the wonderfully detailed full blog of this journey and fundraising effort:  
[https://donauclimateride2020.wordpress.com](https://donauclimateride2020.wordpress.com)
Tourists visiting Vienna are often disappointed to discover that the historical centre of Vienna is located on a small canal, but by no means on the much sung-of "Schöne blaue Donau" ("Beautiful blue Danube"). In the present, even Viennese residents can hardly understand that Vienna is a water city. However, a look at the history of urban waters shows that this could once have been rightly asserted.

Before the First Viennese Danube Regulation in the years 1870 - 1875, the Danube branched into several arms in the Vienna Basin. The Danube landscape, with its dynamic river arms, few oxbow lakes and alluvial zones, reached a width of several kilometres. Both the Roman Vindobona and the medieval city were built on the banks of former large river arms, which might have been even the main arms during the respective time periods. Actually, Vienna was once located on the Danube. From the 13th century onwards, the main arm of the river shifted further and further to the north-east away from the centre. Countless water engineering projects followed. Until well into the 19th century, the supply of the city depended on a navigable Danube arm near the city. The "Wiener Arm", which had been called the "Donaukanal" ("Danube channel") after 1704, therefore served primarily as a transport route. Along the banks, one could find the ship’s landing places, storage yards for wood, markets or many administrative institutions that were entrusted with shipping and trade.

However, the Danube was by far not the only watercourse of the city. On the slopes of "Wienerwald" ("Vienna Woods"), numerous brooks sprang up, which flowed into the Danube. They determined the location of the suburbs and businesses, as well as the course of streets. The two largest streams were the Wien River and the Liesing. The mean discharge of the smaller streams did not even reach 100 litres/second, with the exception of the Alsbach. The Wien River, as a watercourse close to the city, was accordingly a centre of historical water usage in Vienna. A large part of the 110 mills that existed around 1825 within today’s city boundaries were located here. They were built on mill streams that ran parallel to the Wien River. Here they could not be destroyed by the floods that occurred during heavy rainfall in a very short time. In addition, during periods of low flow, the water was concentrated in these small canals, whereas in the wide bed of Wien River, a large part of the discharge would have seeped away. At the other Wienerwald streams near the city, only a few mills were operated and these had to be stopped frequently because the water flow was too low.

From the 16th century onwards, the water quantity of these small streams decreased even further: as the population of the city grew, the number of drinking water wells increased. Springs also supplied the first water pipes - although until the 18th century, it was mainly the nobility and the imperial court that profited from this. All of these facilities and installations drew groundwater and reduced the already insufficient outflow. With a growing population, the discharge of sewage into the Wienerwald streams and the Danube channel also increased. From 1753 onwards, the city authorities promoted sewers to solve the disposal problem. It is remarkable that this intensified the pollution of Vienna’s waters until around 1900. Before sewers existed, houses had cesspools, the contents of which were discharged into the Danube outside the built-up area. After, domestic sewage was discharged into the creeks and then into the Danube channel. In the 19th century, the Wienerwald streams and Danube channel increasingly degenerated into cloaks. According to historical sources, around 1870 the storage of fish in the Danube channel before sale had finally become a health risk.

The successive transformation of the Wienerwald streams into sewers finally sealed their fate. When the first cholera epidemic hit Vienna in 1831, main sewer canals were built on both banks of the Wien River. Generous plans to vault the river were realised only in small sections. This was different for the numerous other urban Danube tributaries. They gradually disappeared.
underground from the 1840s onwards. Only the upper reaches situated outside the built-up area remained, and today represent important aquatic habitats.

At present, a large part of the historic water city Vienna is hidden underground and only indirectly visible. For example, some streets in the 9th and 2nd districts follow former river arms of the Danube. In the suburbs, main traffic axes indicate the course of the former streams, as in the case of Alserbachstraße or Hernals Hauptstraße.

The Danube, the Wien or the Liesing rivers as still existing urban surface waters experienced numerous technical interventions until the 1990s. Today, flood protection dams characterise all three waters. On the Wien and Liesing rivers, long stretches of the riverbed was also paved over. The Danube was continuously expanded for shipping and a decade-old hydropower project was implemented in the 1990s. It is only in the last two decades that the restoration of the waters has come to the forefront.

The traces of Vienna's water landscape, the interlinkage of water and spatial development of the city as well as the beneficial uses and threats of urban waters, are the subject of a book on the environmental history of Vienna's waters, which was published in 2019.

Gertrud Haidvogl is a Senior Scientist at the Institute of Hydrobiology and Aquatic Ecosystem Management at the University of Natural Resources and Life Sciences (BOKU) in Vienna. She is one of the co-authors of the above mentioned book which provides a much expanded history of Vienna's relationship with its historic waterways.


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What is your personal relationship to the Danube, and what would you call your favourite place on the Danube?

I live in Vienna, one of four national capitals on the Danube, and spend a fair amount of my free time in and around the river. I grew up on the upper Mississippi River in the US, so I guess that the habitats, colors, sounds and smells are imprinted on my DNA — indeed, there are a lot of similarities between the rivers. I love exploring the river and floodplains near Vienna, sunning on gravel banks and listening underwater to the tinkle of stones rolling on the bottom of the river channel. There are of course many other more spectacular parts of the river that are more distant from my home, from the Kopaci Rit, the “Amazon of Europe”, at the confluence of the Drava and the Danube, the islands of the lower Danube with their colonies of pelicans and other species, or the magnificent Danube delta.

In your position as Regional CEO for WWF - Central and Eastern Europe, what have you seen as the most important challenge facing the region, and how have the challenges facing the Danube changed over time?

There has been some substantial progress — not too long ago, large sections of the Danube were unswimmable; since then, water quality has substantially improved. Key challenges remain, including those at the focus of the ICPDR’s attention: hydro-morphological alterations, organic and nutrient pollution and hazardous substances, not to mention climate change. One sign of progress is the attention now paid to many of these issues.

During your time with WWF, what has been a positive step forward in the right direction that you have been most happy to see? Alternatively, what achievement during your time with WWF do you see as having the greatest impact on positive progress toward protecting the region?

We have made real progress on addressing potential threats to the river system. When I started working for what was then still the WWF Danube-Carpathian Programme (now “WWF-CEE”), there were EU and national plans to (if I put it provocatively) turn the Danube into a canal, and WWF ran a campaign to “fit the ships to the river, not the river to the ships”. Today — facilitated by the ICPDR — we have agreed guidelines and best practice for the development of inland navigation on the Danube, and WWF is working closely with viadonau and other navigation interests to...
identify and develop practical solutions for transport and environment.

WWF has led or supported wetland restoration at over 30 sites across the Danube basin, most recently through the Living Danube Partnership in cooperation with The Coca-Cola Foundation and ICP-DR. It is great to see a growing number of other organisations and authorities doing the same. We have lost 80% of the floodplains of the Danube and its main tributaries -- but at least some of them we can restore.

What do you consider a highlight of working with the ICPDR and the importance of the WWF-CEE’s role as ICPDR observer?

I have found the ICPDR to be a remarkable platform that brings together not only different governments across the world’s most international -- and possibly diverse -- river basin, but also different sectors and stakeholders, from businesses to organisations like my own. The challenges facing us, from nutrient pollution to hydromorphological changes, are by their nature complex and can only be addressed successfully with the active involvement of different stakeholders. The ICPDR has managed very well not only to facilitate communication but also cooperation for tangible results. The ICPDR has played a key role in improving water quality across the Danube and is now central to the efforts to keep Danube sturgeon from extinction. I and my colleagues have appreciated not only the substance but also the spirit of real cooperation there is in the ICPDR.

For us in the WWF, the ICPDR serves as an inspiration and example for basin commissions and stakeholder processes for other river basins across the globe. For this reason, the WWF presented the ICPDR with the Gift to the Earth award in 2019 - WWF’s highest recognition of service to our living planet.

You have said that we need radically new approaches to the way in which we use natural resources if we are ever going to be able to address climate change and the degradation of ecosystems. What can ordinary people outside of systems of power do to push for and implement these new approaches?

We all can do a lot, starting with the daily choices we make related to our own consumption. Food is a major driver of biodiversity loss across the world; simply changing what we eat can benefit our own health and that of the planet. Housing and transportation are also major drivers of biodiversity loss and climate change. We also can influence those around us and the broader systems in which we exist and operate -- by raising awareness, taking action and giving support, and, not least, voting. The challenges facing us can seem overwhelming, so I think that acting together is important -- not only for impact, but also for solidarity and motivation. Saving the world can be a lot of fun.
From the 19th to the 28th of June, GWP CEE launched a social media mini-campaign called Danube Kayak Expedition 2020 to celebrate this year’s Danube Day. The 470km Bulgarian stretch of the Danube River was to be conquered in nine days, while raising awareness of the issues affecting the river, potential solutions to these as well as GWP CEE’s role. The goal was to finishing on the eve of Danube Day, which the world celebrated on the 29th of June.

With Konstantin Ivanov, GWP-CEE’s regional coordinator, as a protagonist, the story of the DKE 2020 consists of a series of vlogs and pictures, documenting the kayak trip down the Bulgarian strip of the Danube. Each day, GWP CEE released a new post, discussing a different topic connected to the Danube. These ranged from its historical and cultural background, industrial and environmental condition, all the way to its fauna and flora.

The expedition actually began farther upstream than originally planned, meaning that the journey was roughly 10% longer than anticipated. In order to cover the length of the Bulgarian stretch of the Danube, the six Danube explorers had to cover between 50km and 70km per day in order to arrive at the designated location in time to celebrate Danube Day 2020. Of course, in their three double-kayaks they were up to the challenge and arrived in time!

Some highlights included spotting all kinds of wildlife native to the Danube. On one island, well over 100 pelicans were seen all together – a fantastic sight! As wonderful was glimpsing a rare Sea Eagle several times while paddling downstream. Of course, there were many species of fish to be seen, and with fish come fishermen and loads of different varieties of fish soup to eat!

This part of the Danube also offered beautiful islands with their own sandy beaches to enjoy, the river’s largest protected park and the wonderful juxtaposition of these natural wonders and industrial centres built up next to the river. And while some ships were sharing the river with the group, there were far fewer than there would have been were it not for the Covid-19 situation.

There were times of heavy rain and stormy weather, some wild waves due to strong headwinds and one particularly close encounter with a large ferry, but the consensus of all was that the journey was very fun, beautiful and worthwhile.

The DKE 2020 campaign has been further promoted by organisations like the ICPDR, the EU Strategy for the Danube Region, GWP and more. GWP CEE enjoyed this so much that they decided to explore such events further and bring more action packed experiences, just like this one, in the future.

More information:
To follow Konstantin’s story on our social media, search for: #DanubeKayakExpedition, #DanubeDay, #DiscoverDanube.
Dear Danube Family,

On June 29th each year, the 14 countries of the Danube River Basin jointly celebrate one of Europe’s greatest river systems, along with its people and the wildlife that rely on it. So what went on for Danube Day this year?

Well, because of the various restrictions on public gatherings throughout the Danube River Basin as a result of the global COVID-19 pandemic, many of this year’s Danube Day celebrations were shifted, and the public was invited to #DiscoverDanube online. Our partners all remained involved in Danube Day 2020, and we all made the best of a difficult situation to continue celebrating the wonderful Danube river!

Despite almost all of our large activities being either cancelled or postponed indefinitely for 2020, our member countries rose to the challenge to keep the Danube Day spirit alive throughout this global crisis. Just as many of us have embraced technological tool and the internet to continue getting things done during this crisis, so have many of the participating countries for Danube Day.

The Danube Passport from previous years returned, but utilised an online format this time around. Special web pages for Danube Day 2020 were constructed all around. These included Danube-related quiz games for web visitors to test their river knowledge as well as educational short videos all about the many sights along the Danube. There were even some online events geared toward children and families that took place live, and can still be viewed as videos on certain Danube Day webpages. This also holds true for the several webinars hosted by experts in many river-relevant fields - which fostered wonderful discussions on the Danube.
The social media channels of various government ministries and partner organisations all celebrated Danube Day with a wide variety of fun and informative posts. While embracing all that new media has to offer, traditional media was far from forgotten; water ministry newsletters and environment-focused magazines and journals dedicated a great deal of focus on Danube Day 2020. Of course, these publications were also made available online.

This year, the Danube Art Master competition was made even more interesting with a new category and online participation. As this year the motto was "Discover Danube", the new category we introduced was: Maps! Participants were encouraged to explore the riverbank and create a map that marks various points of interest (e.g. a castle), significant places highlighting biodiversity, places for recreation (beaches, parks, bike lanes etc.) and also places that might need more attention (e.g. places in a bad condition, places that require a clean-up, flooded zones etc.). The map could also reveal some curious or lesser known facts about the river.

Finally, Susanne Brandstetter led virtual presentations on Danube Day 2020 activities and ran a virtual tour de table country-by-country. She also asked the representatives to end their presentations with a few statements about how important Danube Day is for their countries. All stressed the benefits of Danube Day celebrations as well as the hope for a return of events in the near future.

The success of this year’s Danube Day celebration can be credited to the various participating organisers from the Danube countries, partners and the public, as well as their willingness to think outside the box and embrace an online Danube Day.