

MINUTES of the METEET workshop on the climate resilience of inland waterways and ports

On 6 June 2023, the European Commission (DG MOVE) and the Danube Commission (DC) in cooperation with other stakeholders, organized the online METEET workshop on the climate resilience of inland waterways and ports (WebEx). The workshop was attended by about 125 participants from different Danube River Basin countries, representing a large number of institutions (mostly river waterways and canal administrations, as well as port administrations). The discussions were moderated by Mr Hugues Van Honacker (DG MOVE).

Hugues Van Honacker, DG Move, welcomed the participants and explained the background of the METEET initiative and the excellent results in previous periods in cooperation with DC, ICPDR and ISRBC. He explained that the topic of climate proofing of infrastructure will be presented as well as common principles and practices for identifying, classifying and managing physical climate risks in the planning, development, implementation and monitoring of inland navigation infrastructure projects and programmes. He also linked to this context the forthcoming presentations on how the issues of climate resilience and adaptation are solved on the Danube and the Rhine, as well as the perspectives and measures that have been identified and will be implemented in this regard. He informed the participants that the entire workshop will be recorded for dissemination purposes.

Inés Ayala-Sender, European Coordinator for Rhine-Danube Corridor, welcomed the participants and pointed out the excellent organization of the workshop. She noted that the Green Deal and the Smart and Sustainable Mobility Strategy provide new momentum to accelerate the transition to more sustainable transport. She also pointed out that in the current geopolitical climate, following Russia's war of aggression against Ukraine, this has had severe implications also for the transport of goods to and from Ukraine. She paid special attention to the EU-Ukraine Solidarity Lanes, regarding the results from May 2022 and referred to the excellent cooperation between DG Move and DC in this context. The resilience of inland waterways to the potential adverse impacts of climate change and related disruptions should hence be strengthened, in order to safeguard their continued utility in the new climate. The reduced safety and reliability of transport infrastructure due to climate change is a significant problem for the efficiency and functioning of the Trans-European Transport network (TEN-T). When it comes to inland waterways in particular, the past couple of years offer plenty of examples of how low water levels caused by prolonged lack of rainfall in main inland waterway arteries such as the Danube can significantly interrupt transport flows.

The European Commission aims to address these challenges in its policy initiatives. In September 2021, the Commission adopted technical guidance on the climate proofing of infrastructure for the period 2021-2027.

She also noted that decisive action is needed to shift freight volumes towards the more sustainable transport modes including shifting a substantial part of inland freight transport currently carried by road to inland navigation and rail and consequently for measures to increase the capacity of inland waterways in the next years. Further EU policies and project action would lead to a significant transformation of the IWT sector. Also, the Connecting Europe Facility (CEF) is one of the key instruments that the European Commission supports in closing the infrastructure gap in the EU Member States and related countries. Good cooperation between the CEF and METEET mechanisms is of great importance.

Mr Hugues Van Honacker, DG Move, introduced the agenda items and informed about the eight forthcoming presentations (which are available below):

<https://www.danubecommission.org/dc/en/mass-media-and-pr/presentations/>

Claus Kondrup EC DG CLIMA, presented the Technical guidance on the climate proofing of infrastructure in the period 2021-2027. He noted that the climate proofing is a process that integrates climate change mitigation and adaptation measures into the development of infrastructure projects. Ports and waterways are already facing various risks associated with a range of meteorological and hydrological parameters

and processes. Some of the main impacts include droughts, floods, and navigation. He explained the structure and method of implementation of the document (the climate proofing process is divided into two pillars: mitigation and adaptation, and two phases: screening, and detailed analysis, emphasizing that there are several approaches to enhance the resilience of transportation on inland waterways, rivers and channels, and ports located along inland waterways to climate change, for instance adaptation planning, infrastructure improvements, technology, and water management.

He provided information on the guidance prepared by the PIANC's technical working group (updated version from June 2022) which introduces a four-stage methodological framework to help port and waterway operators prepare strategies and select measures aimed at adapting assets and operation to climate change (including 16 case studies illustrating some of the climate change adaptation actions that have been undertaken).

Following the presentation, Ms Boudry from EFIP asked whether the guidelines will give more specifics as to what kind of information needs to be provided in project applications and whether there are any thresholds as to the applicability of the guidelines. Mr Condrup replied that climate proofing thresholds are only available under Invest EU, whereby for projects under 10 million EUR no climate proofing needs to be performed. For other funds there is no such threshold. With regard to CEF, the projects in question are usually large-scale so climate proofing will be needed. When it comes to the guidance, a simplified procedure is available under the screening step, whereby if a big risk related to climate resilience is identified at this early stage, this puts into question whether the project itself should be realised, taking into account that the asset could be lost.

Ms Sender also asked if there will be an opportunity to make the guidelines simpler, since climate proofing requirements are added to the required preliminary assessments for projects. She also inquired about where climate proofing expertise can be accessed. Claus Konrup referred to the phased approach of climate proofing whereby the first step is simplified, only checking if a problem can be identified – if one is identified, a detailed analysis should be conducted in the second stage. With regard to expertise, he clarified that climate proofing is a rapidly evolving field and more expertise will be available with time. He also mentioned Jaspers and the EIB as starting points for accessing expertise, as well as technical advisory hubs under the current MFF.

Nevena Gavalyugova-Bolsi, EC DG MOVE, gave an overview on the latest status of the TEN-T revision process and presented the Climate proofing provisions in the revised TEN-T Regulation and forthcoming study on the climate resilience of TEN-T infrastructure. She gave an overview of the next steps including the importance of the Article 46 on Resilience of infrastructure, until the entry into force of the revised TEN-T Regulation, which is planned for January/February 2024. She also announced that the first results of the study on the TEN-T climate adaptation and cross-border investment will be available by March 2024.

Diar Isid, EC DG ENV, presented Water related EU legislation with regard to inland waterways and introduction of EDORA and Water Quantity projects. He gave an overview of the requirements of EU Climate Change Adaptation Strategy and Water Framework Directive (WFD). He explained how Water Framework Directive should be taken into consideration when new projects are planned, with explanation the conditions of WFD Article 4(7) fulfilled. Regarding new infrastructure projects, important recent developments include specifically the elaboration of guidelines to meet the requirements of WFD Article 4(7), which was elaborated in the frame of the Common Implementation Strategy for the Water Framework Directive (CIS). He explained the Commission activity on water quantity management which is a follow up to the Fitness Check of EU water law conclusions, EU Strategy on Adaptation to Climate Change and Common Implementation Strategy Work Programme for the water directives (2022-2024). Finally, he presented the European Drought Observatory for Resilience and Adaptation-EDORA. In the following period, the goal is to strengthen and improve the European Drought Observatory by assessing risks, impacts and providing warnings. Following the presentation, Ms Ayala Sender asked whether it is taken into account that projects can have temporary impacts, as well how it is taken into account that European rivers have always been managed water bodies. Mr Isid referred to an ECJ ruling from last year stating that even temporary deterioration following from a project should be assessed to fulfil the

conditions of WFD Article 4(7). This will also be relevant for TEN-T projects. In some cases, the WFD gives the possibility to designate water bodies as heavily modified, in which case the objective is not “good ecological status” but “ecological potential”, for which different reference criteria are used.

Ms Brooke from PIANC mentioned Article 4(6) of the WFD, which takes into consideration the temporary deterioration of the water bodies due to exceptional or unforeseen natural cause or force majeure. She also mentioned that the ECJ ruling on temporary deterioration will necessitate the revision of available guidance (e.g. CIS and Jaspers guidance) on how to fulfil the requirements of Article 4(7) of the WFD. She mentioned potential difficulties in the future of conflicting requirements under the WFD and the Nature Restoration Law for heavily modified water bodies.

Ms De Schepper from INE also asked about heavily modified water bodies under the WFD and how they will relate to the Nature Restoration Law. Mr Isid replied that WFD requirements are not controversial with the provisions of the NRL and that the NRL is not yet adopted. He advised contacting unit ENV.D3 who are working on the NRL for more information.

Euripides Sakellariou, CINEA, presented the Climate resilience and CEF 2: implications for IWT and ports, examples of good practices of climate resilient IWW projects. He referred to the importance of the topic of climate proofing and CEF Regulation, Article 14. He explained in the context of the upcoming CEF calls, EU member states shall ensure the security and resilience of the infrastructure to climate change when planning and implementing projects of common interest. It is therefore particularly important that the climate proofing requirements are made mandatory, and that future major projects take into account the impact of climate change (only works-related project applications). For applications concerning projects subject to an EIA, in case the key steps for the EIA have been completed after 18 January 2023, the applicants are under the obligation to submit the information on climate proofing. He also provided an overview of the good project examples: FAIRway Works! and Preparing FAIRway 2 works in the Rhine-Danube Corridor.

Following the presentation, Mr Txema URRUTIA ALDAMA from the EIB commented that the European Investment Bank is also a contributor to the FAIRway Works project through its financing to the Republic of Serbia, so the totals for EU contribution are actually higher than reported. Furthermore, he clarified that there is a very good contribution among stakeholders at technical level.

Birgit Vogel, International Commission for the Protection of the Danube River (ICPDR), presented the ICPDR's Climate Change Adaptation Strategy and planned work on droughts. She noted the Climate Change Scenarios in Danube River Basin (DRB) and also presented the ICPDR Climate Change Adaptation Strategy 2012 & update 2018. It was noted that drought events and low water levels in rivers seem to become increasingly frequent in Europe including the Danube River Basin. Over the past 30 years, severe drought events have been observed through changes in precipitation and evapotranspiration that is caused by high temperatures. It is expected that climate change will further exacerbate this problem with the potential of environmental impacts and economic losses. She announced that the Internal ICPDR Workshop on Droughts and Low Water Levels in the DRB will take place in Belgrade on 16 June 2023 with the aim to understand and identify the DRB transboundary needs regarding droughts/low water levels to put forward possible actions on the ICPDR level to tackle these needs.

Following the presentation, Ms Sender asked about examples of concrete approaches to increase resilience in the face of climate change impacts (e.g drought) besides the strategic long-term approach. Ms Vogel replied that the ICPDR does not yet have a drought strategy, and referred to the following presentation for concrete examples of immediate drought reaction measures.

Viktoria Weissenburger, Via Donau, presented the Innovative and flexible approaches for climate-resilient waterway management. She gave an overview of the current tool kit of possible measures to ensure navigability and the previous development steps of waterway management in Austria. She also provided information on the planned pilot in Austria in summer 2023 and possible roll-out of concept in the Danube region under the FAIRway Danube II project (still under evaluation in the CEF2 Programme).

Benno Wachler from WSV asked about how the results of the evaluation of the pilot mentioned in the presentation will be published. Ms Weissenburger confirmed that it will be published because of its importance to stakeholders. In case the concept is rolled out in the Danube region under the FAIRWay Danube II, results from other associated countries will also be published along with public events where the results will be shared.

Robert Kadnar from the Ministry of Transport of Slovakia asked whether some mathematical model was used for the barge deployment. Ms Weissenburger replied that in this particular case there was no mathematical modelling used, but the situation was already properly examined for the deployment of other types of climate resilient waterways management, including via modeling. Besides, this is a very flexible and reversible measure with only one barge that will be monitored. The approach is to learn from the river and observe the effect of this (limited to start with) measure.

Judith ter Maat, International Commission for the Hydrology of the Rhine Basin (CHR), gave a presentation on the Climate resilience addressed on the Rhine River including the topic of socio-economic scenarios on low water in the Rhine River Basin. She stated that according to the models and scenarios used it can be assumed that the total stream flows will be stable also in the long term and that low flows will remain in the usual range for the next three decades, then decrease quite rapidly over the next 50 years. Also on the basis of the applicable thresholds, restrictions to navigation could last on average more than two months per year at the end of the century.

Ms Sender asked a question regarding the demand side of the model: could we try to reduce demand on the rivers at critical points and raise awareness on the need to do so in order to save and protect inland waterway navigation? Ms ter Maat replied that CHR is trying to make an overview of relevant water users and figure out what the trade offs between different types of water uses are. CHR is also exploring different "what if" scenarios to get a better understanding of the relation between water and the different sectors. This is where collaboration with the other Rhine commissions is important in order to mobilise stakeholders.

Ms Brooke from PIANC shared her gladness to hear Ms ter Maat and several other presenters stressing the importance of the navigation sector engaging in discussions about water allocation as well as about drought management planning, since this engagement has not always happened in the past, but will become essential with the changing climate.

Kai Kempmann, Central Commission for the Navigation of the Rhine (CCNR), presented the "Act now!" on low water and effects on Rhine navigation. He reminded of the extreme low water in Europe 2018 and the measures taken in response including the two workshops in 2019 and 2023, and possible actions to adapt to low water and to increase resilience of IWT. In 2023, the workshop will be held as a logical follow-up and input for the third edition of "Act now!".

The main factors are: precipitation, hydrology and morphology (river bed, river structures). There are clear implications for fairway parameters and IWT. The main focus is on: infrastructure, fleet, shippers and logistics, and digital issues.

Recalling a part of the presentation whereby it was mentioned that efforts should be made to avoid switching freight to other modes of transport, Ms Sender mentioned that, from a multimodal corridor perspective, it would be important in times of crisis or big pressure to be able to use the flexibility that multimodality presents. She also mentioned the role of digital tools in helping prevent blockages by transmitting relevant information. Mr Kempmann stressed the importance of multimodality and clarified that he was referring to avoidance of permanent modal shift from IWW due to it being considered unreliable. He also mentioned that the digital 6-week forecast has been a very useful tool on the Rhine because it allows companies to better prepare and adapt their strategies, including dredging strategies. Mr Herfried LEITNER from PDM mentioned that, it is important to increase the engagement in the WFD Water scarcity and drought exercise where the IWT sector is not yet present sufficiently, and that DG MOVE is fully engaged in this exercise. Regarding the long term, he acknowledged that great opportunities have been presented, however short-term challenges should also be adequately tackled. He gave as an example

the missing 40 cm of depth in Bulgariam which would lead to navigation issues in case water discharge decreases.

Mr Manfred Seitz replied that APPD is aware of the fairway depth deficits, and dredging was planned on the most critical sections already for the beginning of May. However, the high water levels currently do not allow efficient dredging. It is expected that dredging will take place once the discharge is adequate.

Statements of the key stakeholders on the Danube:

EFIP representative stressed that climate resilience is an important priority for inland ports. The disruptions on inland waterway transport services damage the reliability of operations in ports and of the sector as a whole. So how do we push this as a priority with Member States? It is important to have the corridor approach because one bottleneck along the waterway is felt everywhere. In terms of vessels, while there are low-water alternatives, but can we expect the sector to invest in them? She expressed EFIP's worry about the competition that is growing for water and land between the different sectors, and about IWW not being prioritized in this competition.

DC Secretariat representative reminded that the METEET initiative is based on the Joint Statement formulated in 2007, with its achievements having become a European Standard. Projects designed by interdisciplinary teams and stakeholder involvement are a part of this standard. Mr Seitz reminded also of the challenges that have changed in the sector, which has urged the DC together with the ICPDR and the Sava Commission to adapt the JS to the new realities and challenges. An important milestone will be the next JS meeting in September hosted by the Sava Commission on 13 and 14 September in Zagreb and online. Mr Seitz concluded by stating that increasing projects requirements make project development very complex and time consuming, so it is very important that IWW administrations in the Danube Region are equipped with the needed human and financial resources to implement those new requirements efficiently. Currently there are tremendous shortcomings in human resources, and technical assistance cannot compensate for long-terms capacity.

PIANC representative expressed appreciation about the many solutions looking at flexibility and adaptiveness aimed at addressing uncertainty that had been presented. She stressed that engagement of the navigation sector in discussions on water allocation will become more and more important. Regarding cross-modality, she highlighted the need to work across sectors to ensure the resilience of different modes of transport with different vulnerabilities. She concluded by stating there needs to be more engagement with other modes in the transport sector.

The Sava Commission representative stated its expectation that METEET should be a platform that can catalyse projects that can be carried out in line with the JS. He reminded about the meeting in Zagreb on 13 and 14 September to revise the JS. With regard to climate proofing, he expressed his hope about this process leading to concrete results and enriching current effort.

Inés Ayala-Sender, European Coordinator for Rhine-Danube Corridor, in closing remarks, she pointed out that today's workshop aims to show that the development of inland waterways infrastructure and environmental protection are not an unsolvable compromise, but can be turned into a win-win situation with the help of interdisciplinary planned and implemented projects. On the other hand, the reduced safety and reliability of the infrastructure of inland waterways due to climate change is an increasingly significant problem. However, it became apparent that there are analyses, studies and forecasts as well as concrete measures for the DRB and the Rhine basin.

She emphasized that the European Green Deal offers the opportunity to better align modal shift to inland waterway transport with other goals such as climate and environmental policy. Waterway and port managers should be also fit in regional development, environmental and climate policy.

As an overall conclusion of the discussion, it was noted that river commissions have an important role to play in bringing together relevant stakeholders and in monitoring developments, while the European Commission needs to set the right incentives to motivate stakeholders to take necessary actions. A joint effort is needed in addressing the many challenges related to climate resilience of inland waterways and

ports, one of the most important being the increase of human capacity in river administrations to deal with new issues.

AGENDA

METEET - Workshop on the climate resilience of inland waterways and ports

WebEx, 6 June 2023, 13.00-17.00

Moderator: Hugues Van Honacker, Senior Expert, EC DG MOVE.DDG2.D.3 - Ports and Inland Navigation

Time	Topic
13:00	Welcome and Introduction <i>by European Coordinator Inés Ayala Sender</i>
13:10	Commission Notice C(2021) 5430 - Technical guidance on the climate proofing of infrastructure in the period 2021-2027): focus on the resilience of inland waterways and ports – Claus Kondrup EC DG CLIMA, B.4
13:30	Climate proofing provisions in the revised TEN-T Regulation and forthcoming study on the climate resilience of TEN-T infrastructure – Nevena Gavalyugova-Bolsi, EC DG MOVE, B.1
13:50	Water related EU legislation with regard to inland waterways and introduction of EDORA and Water Quantity projects- Diar Isid, EC DG ENV, C.1
14:10	Climate resilience and CEF 2: implications for IWT and ports, examples of good practices of climate resilient IWW projects - Euripides Sakellariou, CINEA, B2.2
14:30	Coffee break
14:45	ICPDR's Climate Change Adaptation Strategy and planned work on droughts – Birgit Vogel, International Commission for the Protection of the Danube River (ICPDR)

15:05	Innovative and flexible approaches for climate-resilient waterway management – <i>Viktoria Weissenburger, Via Donau</i>
15:25	How is climate resilience addressed on the Rhine River – <i>Judith ter Maat, International Commission for the Hydrology of the Rhine Basin (CHR)</i>
15:45	“Act now!” on low water and effects on Rhine navigation – <i>Kai Kempmann, Central Commission for the Navigation of the Rhine (CCNR)</i>
16:05	Statements of the key stakeholders on the Danube <ul style="list-style-type: none"> • DC • ISRBC • River waterways and canal administrations on the Danube (Plovput, AFDJ, APPD, Plovni Putovi, USPA) • Port administrations on the Danube • EFIP
16:50	Closing by European Coordinator Inés Ayala Sender

17:00	End of meeting
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