



EUSDR PA1a 20th Steering Group Meeting

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EUROPEAN UNION European Regional Development Fund Federal Ministry Republic of Austria Climate Action, Environment, Energy, Mobility, Innovation and Technology





Ministry of Transport and Infrastructure





Welcome of all participants



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In memoriam

Željko Milković



EUROPEAN UNION European Regional Development Fund







Status of the Update of the Fairway Rehabilitation and Maintenance Master Plan (Working Group 1)

Viktoria Weissenburger



EUROPEAN UNION European Regional Development Fund Federal Ministry Republic of Austria Climate Action, Environment, Energy, Mobility, Innovation and Technology









Update of the Fairway Rehabilitation and Maintenance Master Plan (FRMMP)

| 20 | 14 Fairway Rehabilitation and Maintenance Master Plan |
|---------|--|
| on | large number of (trans)national implementation projects (FAIRway Danube, HUMARK,) |
| mentati | EU co-financing is a crucial enabler for investments (mainly CEF, Operational Programmes, IPA) |
| mple | some key issures resolved/outdated |
| s of i | new key issues emerged |
| year | transnational trends (accelerated digitalisation or climate change) |
| ۲~ | several topics to be addressed jointly |
| | |

2021 Fairway Rehabilitation and Maintenance Master Plan (Update 2021)







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 - 2. Fairway maintenance basic data
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 - 4. Overview of action points

- 4. Overview of critical sectors on the Danube and its navigable tributaries
- 5. Synthesis of key issues
- 6. Co-funding perspectives

Fairway Rehabilitation and Maintenance Master Plan (Update 2021)

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Status of country chapters

| Country | | |
|------------------------|--------------------|-------------------------------|
| Germany | update in progress | |
| Austria | updated draft | |
| Slovakia | updated draft | |
| Hungary | updated draft | |
| Croatia | updated draft | mans of critical locations to |
| Serbia | updated draft | be updated |
| Bosnia and Hercegovina | update in progress | |
| Romania | updated draft | |
| Bulgaria | updated draft | |
| Moldova | updated draft | |
| Ukraine | update in progress | |







Transnational issues

 <u>Centralised platform for harmonised waterway-related data (WAPEPartional concept</u>)
 → waterway-related data was largely collected in a decentralized functional one and wit varying data quality and with

Harmonised Fairway Information Services





Danube FIS Portal

- user information is provided in very different quality and frequency
- Iarge variety of different national and transnational user information platforms.

Concerted approach to managing the impacts of climate change

- Indige impacts on waterway sale
 Iack of adaptation strategies for dealing with extreme events and project propertied: regimes







Reminder

- structure of the country chapters follows the fairway management cycle
- operational budget estimations are not comparable between the countries as ww administrations are organised differently

Germany

Maintenance target:

In the free-flowing section between Straubing and Vilshofen the minimum fairway depth of 2.5 m as defined by NEWADA duo cannot be achieved by fairway maintenance. In this section the objective of fairway maintenance is to maintain the fairway depth of 2.0 m related to LNWL (in Germany: RNW).

to be amended

FAIRway works! multifunctional

marking equipment under way

(ongoing)

Austria – key issues

Monitoring

system for remote monitoring of the buoy position is not performing reliably

Planning

➢ further exploiting the possibilities of analysis of key parameters of the interface waterway infrastructure – operating vessels as a basis for planning → further development of the existing waterway management tool (WAMS)

Execution

- create redundant and more effective waterway marking system
- exploit the possibilities of flexible and climate resilient infrastructure elements

Information

- inaccurate water level forecast
- further improve interface between infrastructure managers and waterway users

Austria – annual operational budget needed

| Operational costs, approx. annual expenditures 2016-2020 | Operational costs, approx. annual budget needs |
|---|---|
| approx. 5 110 000 EUR | approx. 5 000 000 EUR (dredging budget included) |

Slovakia – key issues l

Monitoring

insufficient number of skilled staff to monitor the fairway

Planning

- ➢ inefficient planning and information provision procedures → further development of the existing waterway management tool (WAMS)
- ➤ different coordinate systems used for measurements in border stretches are an impediment to efficient planning → facilitate exchange

Execution

- old marking fleet and equipment
- insufficient number of floating and coastal signals, including AIS AtoNs and no automated system available for the monitoring of buoy position and the dissemination of marking information
 Study for the modernisation of

marking and navigation equipment (recently finalised)

Slovakia – key issues II

Execution

- old dredging equipment
- Iack of staff and missing of new dredging equipment, resulting in later intervention in case of urgencies (related to dredging activities)
- in case of later dredging intervention, adjustment of fairway marking as substitution for dredging activities (as first step – temporary solution until dredging)

Information

- user information should be provided customer-friendly using established river information portals; bathymetric data is available in the IENCs
- insufficient user information regarding the clearance under bridges

Slovakia – annual operational budget needed

| Operational costs, approx. annual expenditures 2016-2020 | Operational costs, approx. annual budget needs |
|---|---|
| approx. 2 300 000 EUR | approx. 2 560 000 EUR (dredging budget included) |

Hungary – key issues

Monitoring

- outdated surveying sensor(s)

Planning

weekly marking trips are not sufficient to monitor the fairway marking upgrade of Hungarian marking trips are not sufficient to monitor the fairway marking upgrade system ongoing marking system nefficient planning and information and info existing waterway management tool (WAMS)

Execution

- icebreaking cannot be performed at low water levels
- insufficient budget for dredging activities

study to improve navigability on the Hungarian section of the Danube (ongoing, until Sept. 2022)

Information

- user information should be provided customer-friendly using established river information portals
- insufficient user information regarding the clearance under bridges

Hungary – annual operational budget needed

| Operational costs, approx. annual expenditures 2016-2020 | Operational costs, approx. annual budget needs |
|---|---|
| approx. 700 000 EUR – 1 000 000 EUR | approx. 1 500 000 EUR (dredging budget excluded) |

Croatia – key issues

Monitoring

- insufficient number of skilled staff

Planning

- insufficient and hardly predictable financial backings

Execution

➤ high number of critical locations on Croatian rivers and high maintenance costs → possibly capital dredging needed

Information

Iow number of water level forecasts near critical bottlenecks

Croatia – annual operational budget needed

| Operational costs, approx. annual expenditures 2016-2020 | Operational costs, approx. annual budget needs |
|---|---|
| approx. 1 084 000 EUR (AVP/MMPI & DHMZ) | approx. 4 000 000 EUR (AVP/MMPI & DHMZ; dredging budget included) |

Serbia – key issues I

Monitoring

- limited budget for monitoring activities
- insufficient number of skilled staff

FAIRway works! surveying vessel under way (ongoing)

insufficient number of automatic gauging stations on the Tisza and old gauging equipment along all waterways

<u>Planning</u>

> -

Execution

FAIRway works! multifunctional marking vessel and AIS AtoNs on the Sava under way (ongoing)

- further absence of budget for dredging activities will lead to deterioration of navigation conditions on the border section with Croatia, while the cost-benefit ratio of these activities is very favorable
- room for improvement of the marking system on the Tisza River
- inability to employ new staff due to Government regulation and restrictions

Serbia – key issues II

Information

- Iow number of gauging stations results in incomplete water level information and leads to inaccurate forecasts
- water level forecast is of insufficient quality

Serbia – annual operational budget needed

| Operational costs, approx. annual expenditures 2016-2020 | Operational costs, approx. annual budget needs |
|---|--|
| to be added | to be added |

Bosnia and Hercegovina

Currently there is no agency on state level which is responsible for maintenance; currently bilateral agreement with Croatia for the marking of the waterway, no physical interventions are possible

ightarrow input to be provided

Romania – key issues I

Monitoring

- partly outdated surveying equipment
- insufficient number of automatic gauging stations
- Iack of equipment for the monitoring of the canal banks (DBSC and PAMNC)
- lack of equipment to monitor the physical and chemical quality of water

Planning

- ➢ inefficient planning and information provision procedures → WAMS development
- lack of a comprehensive digital terrain model
- statistical Low Navigable Water Levels are not available for all major gauges

digital terrain model partly available from FAST Danube project (ongoing)

Romania – key issues II

Execution

- lack of dredging equipment for the maritime Danube
- lack of specialized personnel to operate the dredgers
- Iack of efficient vessels and special equipment for marking (e.g. specialised vessel for the maintenance of the coastal signalisation)
- insufficient number of buoys, including AIS AtoNs and no automated system available for the monitoring of buoy position and the dissemination of marking information

Information

- > no water level forecast covering the entire Romanian Danube
- user information should be provided customer-friendly using established river information portals; incl. bathymetric IENCs
- insufficient number and quality of weather stations
- insufficient user information regarding the clearance under bridges

Romania – annual operational budget needed

| Operational costs, approx. annual expenditures 2016-2020 | Operational costs, approx. annual budget needs |
|---|--|
| approx. 13 200 000 EUR | approx. 16 000 000 EUR |
| (AFDJ and ACN, incl. 4 500 000 EUR for | (AFDJ and ACN, incl. 4 500 000 EUR for |
| lock maintenance) | lock maintenance) |

Bulgaria – key issues l

Monitoring

- partly outdated measuring equipment and inability to secure repairs
- old automatic gauging network
- limited number of skilled personnel

Planning

➢ inefficient planning and information provision procedures → WAMS development

Execution

Iack of dredging equipment for quick interventions dredging equipment of ongoing

- Iarge number of interventions bring disruptions to shipping and the environment
 - \rightarrow possibly capital dredging and fewer interventions
- insufficient budget for dredging interventions

Bulgaria – key issues II

Execution

- insufficient number of buoys, including AIS AtoNs and no automated system available for the monitoring of buoy position data and the dissemination of marking information
- lack of efficient marking vessels and special equipment for marking
- Imited number of skilled personnel (regarding fairway marking and dredging)

Information

user information, incl. IENCs, should be provided customer-friendly using established river information portals

Bulgaria – annual operational budget needed

| Operational costs, approx. annual expenditures 2016-2020 | Operational costs, approx. annual budget needs |
|--|---|
| approx. 2 559 000 EUR (for 2018-2020, as before no dredging was conducted) | approx. 4 275 000 EUR (dredging budget included) |

Moldova

The Danube stretch of Moldova is only about 500 metres long and is restricted to the port area of Giurgiulesti.

Fairway administration and maintenance of the Danube waterway in Moldova is carried out by the Romanian AFDJ on the basis of a bilateral agreement.

Ukraine

State enterprise "Ukrainian sea ports authority" is responsible for both:

- capital interventions (implementation of the new project for reconstruction of the Ukrainian fairway), and
- maintenance of the existing depths and is providing regular dredging works by means of its own dredging fleet

Monitoring

- surveys performed regularly by the State Institution "Derzhhydrographiya"
- 6 gauges observed by the Hydrometeorological Center of Ukraine

Planning

> -

Ukraine

Execution

- Ukrainian part of the Danube is equipped with the aids to navigation which are maintained in a proper condition as required by the Danube Commission
- maintenance dredging activities are conducted to ensure safety of navigation, operational dredging works on the sea access channel of the deep-water navigable route on the Ukrainian part of the Danube delta performed in 2020-2021 (incl. comprehensive environmental monitoring)

Information

publication in the Notices to Mariners of Ukraine and transfer of navigational warnings in the NAVTEX system

Environmental issues I

Implications of the EU Water Framework Directive (WFD) (2000/60/EC)

Objectives:

- non-deterioration principle
- surface water bodies must adhere good chemical status and good ecological status/potential
 Exemptions possible under certain conditions; Article 4(7) of particular relevance in this context
 - → Ecological status/potential and ecological compatibility of maintenance measures described for each country
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→ reference made to the "Guidance Document No 36 on Exemptions to the Environmental Objectives according to Article 4(7)"

Environmental issues II

Implications of NATURA 2000 areas - Birds and Habitats Directives

Objective:

- species protection requirements
- populations and habitats are maintained in or restored to a favourable conservation status (FCS)

 \rightarrow reference made to the "Guidance Document on Inland Waterway Transport and Natura 2000"

Application of the Joint Statement principles

The rehabilitation and maintenance measures and activities monitored within the context of the Master Plan (surveying, fairway relocation, dredging and better information) have the character of reversible interventions, **as recommended by the Joint Statement**.

Updated Fairway Rehabilitation and Maintenance Master Plan (FRMMP) – Next steps

| until 07.01.2022 | new draft to be sent to the entire Steering Group, incl. observers |
|------------------|--|
| until 31.01.2022 | ~ 4 weeks for feedback from the observers to the PA1a Steering Group (reference made to the latest version of the River Basin Management Plans) and last changes |
| February 2022 | ~ 4 weeks for final approval of the new FRMMP by PA1a voting Steering Group members in a written procedure |

Conclusions and next steps

EUROPEAN UNION European Regional Development Fund

Republic of Austria Climate Action, Environment, Energy, Mobility, Innovation and Technology

PA1a coordinators

Austria

Federal Ministry Republic of Austria Climate Action, Environment, Energy, Mobility, Innovation and Technology

viadonau

Vera Hofbauer <u>vera.hofbauer@bmvit.gv.at</u> Gert-Jan Muilerman <u>gert-jan.muilerman@viadonau.org</u> Viktoria Weissenburger <u>viktoria.weissenburger@viadonau.org</u>

Ministry of Transport and Infrastructure

Mihaela Mocanu <u>mihaela.mocanu@mt.ro</u> Cristina Cuc <u>cristina.cuc@mt.ro</u> Monica Patrichi monica.patrichi@mt.ro

