



17th PA 4 SG meeting
Bratislava 16th April 2019.

Actions of PA5



1. To develop and adopt one **single overarching floods management plan at basin level** or a set of flood risk management plans coordinated at the level of the international river basin
2. To support **wetland and floodplain restoration as an effective mean of enhancing flood protection**, and more generally to analyse and identify the best response to flood risk (including “green infrastructure”)
3. To extend the coverage of the European Floods Alert System (EFAS) system to the whole Danube river basin, to step up preparedness efforts at regional level (including better knowledge of each other's national systems) and to further promote **joint responses to natural disasters and to flood events in particular, including early warning systems**
4. To continuously update the existing database of **accident risk spots (ARS Inventory)**, contaminated sites and sites used for the storage of dangerous substances
5. To strengthen **operational cooperation among the emergency response authorities** in the Danube countries and to improve the interoperability of the available assets
6. To develop **rapid response procedures and plans in case of industrial accidental river pollution**
7. Anticipate regional and local **impacts of climate change** through research
8. To develop **spatial planning and construction activities** in the context of climate change and increased threats of floods

AP review

New proposal



5.1 Provide **sufficient support** for development and execution of **risk management plans** for different root factors (e.g. floods, forest fires, landslides etc.)

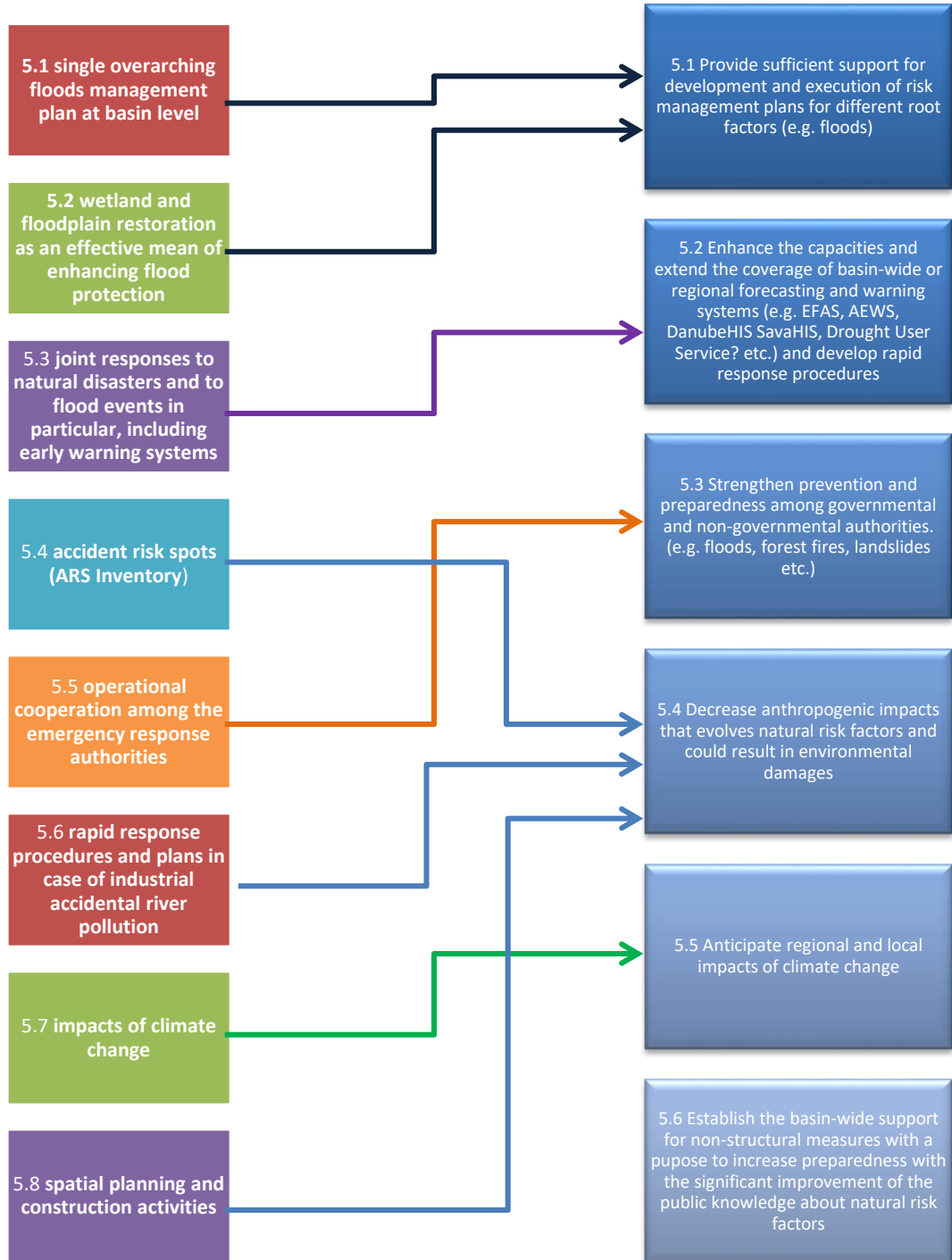
5.2 Enhance the capacities and extend the coverage of **basin-wide or regional forecasting and warning systems** (e.g. EFAS, AEWS, DanubeHIS SavaHIS, Drought User Service etc.) and develop rapid response procedures

5.3 Strengthen **prevention and preparedness** among governmental and non-governmental organizations. (e.g. floods, forest fires, landslides etc.)

5.4 Decrease anthropogenic impacts that evolves natural risk factors and could result in **environmental damages**

5.5 Anticipate regional and local impacts of **climate change**

5.6 Establish the basin-wide support for **non-structural measures** with a purpose to increase preparedness with the significant improvement of the public knowledge about **natural risk factors**



New proposal



5.1 Provide sufficient support for development and execution of risk management plans for different root factors (e.g. floods, forestfires)

5.1.1 Collaborate with ICPDR in order to perform DFRMP

5.1.2 Promote sustainable floodplain management including green infrastructure

5.1.3 Foster basin wide management planning on specific issues (e.g. ice on rivers) - (DANICE)

DFRMP 7.6 Improvement of flood forecasting (DAREFFORT, RaabFlood4cast, East Avert)

DFRMP 7.7 Information exchange on the operation of hydraulic structures (DAMWARM+)

DFRMP 7.8 Coordination of operative flood management plans

DFRMP 7.9 Development of elements of FRMPs for trans-boundary sub-units of common interest

DFRMP 7.10 Exchange of flood protection techniques, technologies and experiences

DFRMP 7.11 Develop an education/training network (InterFloodCourse)

DFRMP 7.12 Enhance coordination of operative flood protection methods and equipment

5.2 Enhance the capacities and extend the coverage of basin-wide or regional forecasting and warning systems (e.g. EFAS, AEWS, DanubeHIS SavaHIS, Drought User Service etc.) and develop rapid response procedures

5.2.1 Create stronger links and synergies between the European Flood Awareness System EFAS and the national or regional early warning systems to support preparedness efforts at regional level

5.2.2 Support the development of the DanubeHIS system

5.2.3 Support regular AEWS maintenance, testing and usage

5.2.4 Support drought forecasting and drought management in the Danube basin

New proposal



5.3 Strengthen prevention and preparedness among governmental and non-governmental authorities. (e.g. floods, forest fires, landslides etc.)

- 5.3.1 Support joint preparedness activities of disaster response actors (professionals and volunteers – operational, tactical and strategic level)
- 5.3.2. Harmonized training and capacity building of civil protection units (based on EUCPM) to improve coordination, interoperability, procedures and self-sufficiency
- 5.3.3. Support Disaster risk reduction (UN, Red Cross) at local level, raising awareness of the population
- 5.3.4. Host Nation Support (EUCPM, bilateral) in case of disaster
- 5.3.5. Innovation and technology to support disaster response (Risk Data Hub, drone, IT solutions, mapping)

5.4 Decrease anthropogenic impacts that evolves natural risk factors and could result in environmental damages

- 5.4.1 Complete the ICPDR AHS, CS and MS geodatabase
- 5.4.2 Identify the most potential industrial challenges
- 5.4.3 Overview man-made structures or reservoirs as accumulated hot spots (LAREDAR)

New proposal



5.5 Anticipate regional and local impacts of climate change

- 5.5.1 Facilitate the harmonization or coordination of the different level CCA strategies and action plans to boost international collaboration
- 5.5.2 Exploring direct effects of CC and implement mitigation measures to management plans in programs
- 5.5.3 Support research with providing particular topics to be assessed
- 5.5.4 support natural small water retention measures

5.6 Establish the basin-wide support for non-structural measures with a pupose to increase preparedness with the significant improvement of the public knowledge about natural risk factors

....workshops, conferences, journals, consultation days, thematic papers, dissemination materials, e-learning, courses ...

Ongoing DTP projects related to climate change adaptation



JOINTISZA – *Strengthening cooperation between river basin management planning and flood risk prevention to enhance the status of waters of the Tisza River Basin*

Contains a drought and climate change pilot action and an urban hydrology pilot action

- <http://www.interreg-danube.eu/approved-projects/jointisza>

PA4 CONNECTION

CAMARO-D – *Cooperating towards advanced management routines for land use impacts on the water regime in the Danube river basin*

One of the main goals is harmonizing and improving the protection of water resources against negative impacts of land use and climate change as well as reduction of flood risk.

- <http://www.interreg-danube.eu/approved-projects/camaro-d>

DRIDANUBE – *Drought risk in the Danube region. Aims to increase the capacity of the Danube region to adapt to climatic variability by enhancing resilience to drought*

Danube Drought Conference, PA5 presentation: 7-8 May, Vienna

- <http://www.interreg-danube.eu/approved-projects/dridanube>

Ongoing DTP projects related to climate change adaptation



WateratRisk project – *innovative and harmonized monitoring solutions and water management operational plans to facilitate early warning; Drought and Excess Water Management Centre in Szeged (HU)*

Two workshops (end of 2018, beginning of 2019) about drought and inland excess water risk assessment; and hydro-climatic extremes and water management related to environmental exposure

- <http://www.geo.u-szeged.hu/wateratrisk>

Danube Floodplain – *to support wetland and floodplain restoration as an effective mean of enhancing flood protection, and more generally to analyze and identify the best response to flood risk (including “green infrastructure”).*

National kick-off meetings took place to inform the stakeholders about the project's objectives.

In the beginning of 2019, on the 1st expert meeting the partners agreed on: database structure and GIS; initial methodology for delineating the floodplains; floodplain evaluation concept and forthcoming activities.

- <https://www.danubeenvironmentalrisks.eu/danube-floodplain>



Ongoing DTP projects related to climate change adaptation



DAREFFORT — *to enhance the access to the recorded water data and to provide coherent distribution for all the countries in the Danube catchment. The aim is to support the realization of the DanubeHIS (ICPDR) and provide long-term development perspective for the sufficient conditions of proper basin-wide hydrological forecasting)*

1st Periodic Meeting in February 2019: Capitalisation Event (PA4 - PA5 presentation), Danube Forecasting Forum and Data Provider Conference

- <https://www.danubeenvironmentalrisks.eu/dareffort>

InterFloodCourse - *A curriculum and training material for an international postgraduate course on flood risk management to harmonize methodologies and foster academic mobility of engineers in training within the Danube region - operative flood management bodies will be involved.*

International Postgraduate Course on Flood management will take place:

<https://vtk.uni-nke.hu/oktatas/interfloodcourse>

- <https://www.danubeenvironmentalrisks.eu/interfloodcourse>



Ongoing DTP projects related to hazard and risk mitigation



MUNICIP-AID – *The project identifies interlinkages of policies, gaps and examples of implementation, and deploy pilot activities to build the recommendations into practice. Comprehensive approach for knowledge-sharing on flood rescue activities, as well as for volunteer management during flood response will be introduced. A common training framework and a coordination tool is to be developed and piloted.*

Proposal for DTP 3rd Call was submitted by a consortium of 15 partners and 5 ASPs from 7 countries.

REVITAL I. – *Environmental Assessment for Natural Resources Revitalization in Solotvyno to prevent the further pollution of the Upper-Tisza Basin through the preparation of a complex monitoring system.*

Based on the Union Civil Protection Mechanism Advisory Mission's objective the proposal was selected by HUSKROUA CBC program. The project is under condition clearing.

DARENET– *DAREnet supports flood management practitioners to deepen and broaden their Research, Development and Innovation related collaboration. DAREnet builds a multi-disciplinary community of practitioners, operating in a network of civil protection organizations, and supported by a broad range of stakeholders to foster synergies, innovation and its uptake.*

The project is financed by EU Horizon2020 programme.

The First Annual Forum was held in Budapest.



DAnube river region Resilience Exchange Network project

First Annual Practitioner Forum in Budapest



- EUSDR PA5 gave two presentations



One of them was a keynote presentation about Strategies to cope with **environmental challenges in the Danube river region** by Mr László Balatonyi. During the Practitioners reports section, Ms Kinga Perge presented about **Red sludge flood in Hungary 2010**.



EU level workshop on hydromorphology

EUSDR PA5 (Hu) jointly with the Directorate General for Water Management of Hungary hosted the Workshop on **hydro-morphological measures under the Floods and Water Framework Directives** on 4-5 December 2018 in Budapest.



More information on the link:

<https://www.danubeenvironmentalrisks.eu/news/eu-level-workshop-on-hydromorphology>



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Danube region adaptation to climate
change through research

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E-learning study material

for the International Commission for the Protection of the Danube River



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Thank you for the kind attention!

For more information please visit our website:

www.danubeenvironmentalrisks.eu

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PA5 HU coordinator

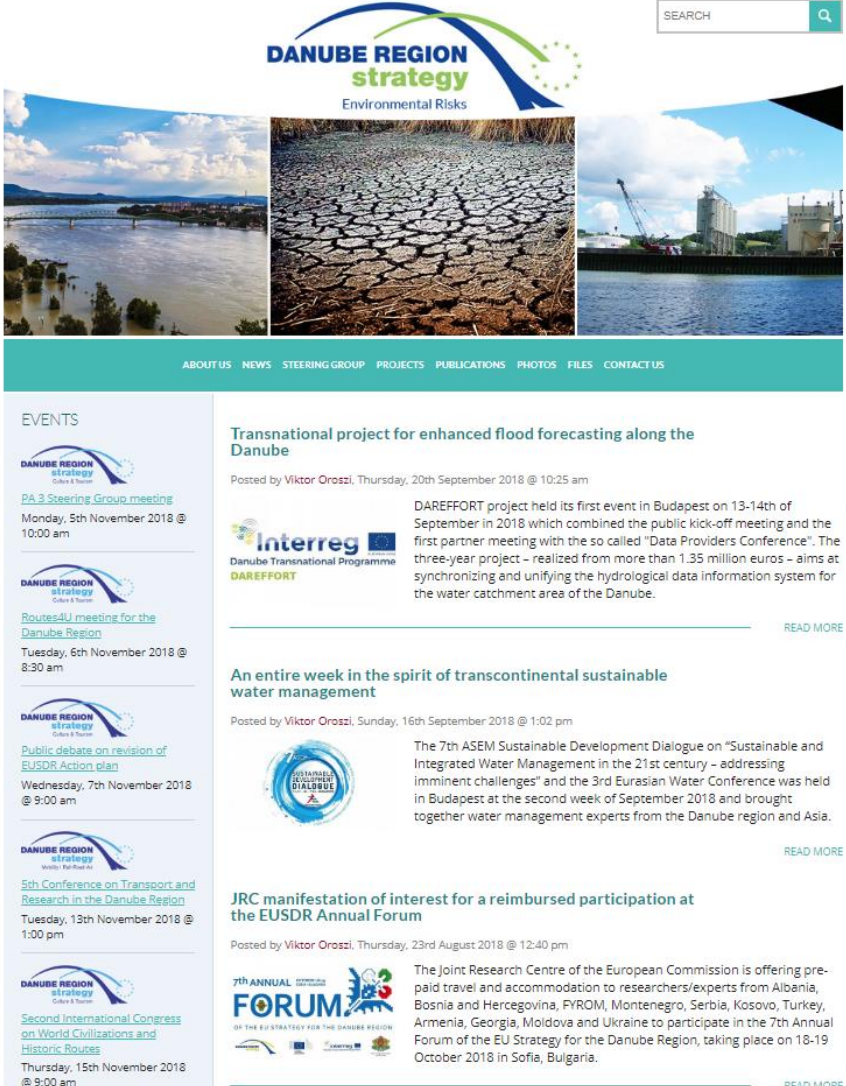
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DANUBE REGION strategy
Environmental Risks

SEARCH

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EVENTS

DANUBE REGION strategy
Colors & Tunes

[PA 3 Steering Group meeting](#)
Monday, 5th November 2018 @ 10:00 am

DANUBE REGION strategy
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[Routes4U meeting for the Danube Region](#)
Tuesday, 6th November 2018 @ 8:30 am

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[Public debate on revision of EUSDR Action plan](#)
Wednesday, 7th November 2018 @ 9:00 am

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[5th Conference on Transport and Research in the Danube Region](#)
Tuesday, 13th November 2018 @ 1:00 pm

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[Second International Congress on World Civilizations and Historic Routes](#)
Thursday, 15th November 2018 @ 9:00 am

Transnational project for enhanced flood forecasting along the Danube

Posted by Viktor Oroszi, Thursday, 20th September 2018 @ 10:25 am

Interreg
Danube Transnational Programme
DAREFFORT

DAREFFORT project held its first event in Budapest on 13-14th of September in 2018 which combined the public kick-off meeting and the first partner meeting with the so called "Data Providers Conference". The three-year project – realized from more than 1.35 million euros – aims at synchronizing and unifying the hydrological data information system for the water catchment area of the Danube.

[READ MORE](#)

An entire week in the spirit of transcontinental sustainable water management

Posted by Viktor Oroszi, Sunday, 16th September 2018 @ 1:02 pm

SUSTAINABLE EUROPEAN DIALOGUE

The 7th ASEM Sustainable Development Dialogue on "Sustainable and Integrated Water Management in the 21st century – addressing imminent challenges" and the 3rd Eurasian Water Conference was held in Budapest at the second week of September 2018 and brought together water management experts from the Danube region and Asia.

[READ MORE](#)

JRC manifestation of interest for a reimbursed participation at the EUSDR Annual Forum

Posted by Viktor Oroszi, Thursday, 23rd August 2018 @ 12:40 pm

7th ANNUAL FORUM
OF THE EU STRATEGY FOR THE DANUBE REGION

The Joint Research Centre of the European Commission is offering pre-paid travel and accommodation to researchers/experts from Albania, Bosnia and Herzegovina, FYROM, Montenegro, Serbia, Kosovo, Turkey, Armenia, Georgia, Moldova and Ukraine to participate in the 7th Annual Forum of the EU Strategy for the Danube Region, taking place on 18-19 October 2018 in Sofia, Bulgaria.

[READ MORE](#)