

DANUBESEDIMENT – EXPERTS AND STAKEHOLDERS DISCUSSED ABOUT POTENTIAL MEASURES AND GOOD PRACTICE ON SEDIMENT MANAGEMENT

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On June 26th 2019, over 50 sediment management experts came to the Ramada Majestic Hotel in Bucharest to participate in the “International Stakeholder Workshop on Sediment Management Measures”. Organised by the National Administration “Romanian Waters”, the workshop took place in the frame of the Interreg project *Danube Sediment - Restoration of the Sediment Balance in the Danube River*.



The main purpose of the workshop was to discuss the recommendations and good practice measures, which were elaborated and assessed in the project, with stakeholders from different sectors involved in sediment management.

In the first part of the workshop, the project partners BOKU from Austria, VUVH from Slovakia and BME from Hungary presented general information about the project and first results. For example, VUVH presented a first draft of the Sediment Balance Analysis. BOKU explained how the project partnership has succeeded in raising awareness on the “alterations of the sediment regime” in the Danube. The topic has gained significant political importance and ICPDR will discuss the issues arising from an altered sediment balance and possible measures to counteract this change in the next Danube River Basin Management Plan.

Participants that took part in the full-day workshop came from a diverse array of stakeholder groups. For example, representatives came from the Lower Danube River Administration, WWF Romania, GeoEcoMar, Business Development Group, Technical University of Civil Engineering, Hyperion University, University of Belgrade, Fluvius of Austria, Danube Delta Biosphere Reserve Administration and from Water Basin Administrations of the tributaries that were analysed in the project: Jiu, Argeş-Vedea, Buzău-Ialomița, Siret, Prut-Barlad, Dobrogea-Litoral.

In the second part of the Workshop, representatives of National Administration “Romanian Waters” presented an analysis of the 72 measures that 14 project partners had reported to date. These potential measures and good practices for sediment management were collected through factsheets and will be published in a “*Catalogue of Measures*”. In an interactive session, the participants contributed their ideas, constructive opinions and professional experience from various fields of sediment management and research. The *Catalogue* will structure the measures in relation to drivers that alter the sediment regime and according to the main technical objectives of a measure, such as:

- Sediment supply/continuity;
- Sediment input downstream of HPP;
- Sustainable sediment budget in the side-arm system;
- Stabilize bed level (reduced erosion);
- Refeed dredged sediment in upstream parts to reduce the ongoing river bed incision;
- Reducing river bed incision (reduced erosion);
- Reduced shear stress in main channel;
- Reduction of groyne field effects (less sedimentation etc.);
- Restoring lateral erosion processes downstream;
- Permanent connection of side-arms at low flowing conditions;
- Permanent refugial areas, protection against wave influence;
- Increasing flood retention, lower water level at high flow;
- Emphasizing flood retention, lowered water level at higher discharge;
- Restoration of banks (side erosion due to higher shear stress along the river bank);
- Increased hydromorphological dynamics at the banks;
- Maintain water level conditions in the navigation channel.



The main points that discussed in relation to sediment management measures were:

- To structure the *Catalogue of measures* based on morphological processes affecting sediment transport and continuity, i.e. measures to reduce sedimentation and measures to reduce bed erosion;
- A large portion of the discussion focused on sediment regime issues in Romanian tributaries and the Danube, e.g.
 - the sedimentation rate in reservoirs located on the main tributaries;
 - geomorphological processes and their consequences in the areas where the phenomena of erosion-transport-accumulation of sediments occurs;
 - legislative issues regarding land property;
 - changes in land-use that impact erosion into water bodies.
- Some measures were discussed for Romania:
 - To improve navigation conditions, a “bed stabilization” may be useful if a 8-10 m depth is required in the navigable channel. The sediment can be relocated.
 - First experiences with flushing showed only minimal improvements, since the transport of sediment is dependent on factors such as material composition, size of reservoir and slope.

- Measures in forestry and agriculture to reduce fine sediment erosion are not implemented widely.



Further results and recommendations from this workshop will be made available in the *Catalogue of Measures* as well as in the *Report on sustainable, practical measures and recommendations to improve the Danube River sediment management*.

You can download the presentations here:

- [Presentations "International Stakeholders Workshop on Sediment Management Measures"](#)

You can find more pictures of the International Stakeholder Workshop on Sediment Management Measures in the [gallery](#).