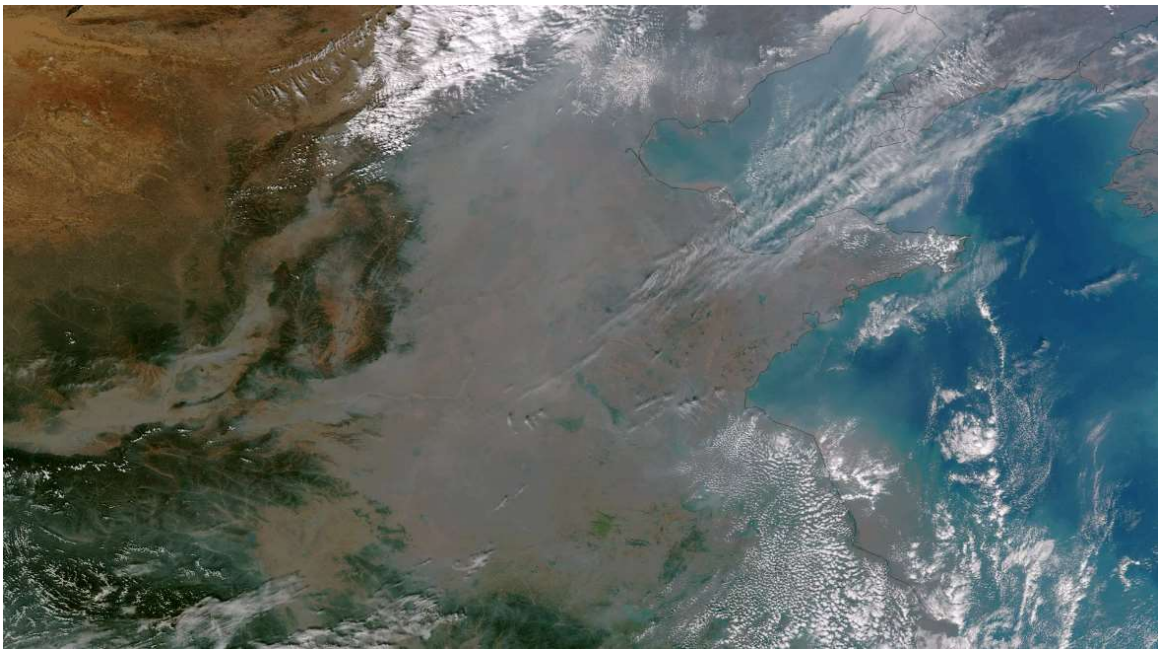

# BOOK OF ABSTRACTS

## International conference on transboundary catchment erosion and pollution problems

**19-24 July, 2023 | Belgrade, Serbia**

Универзитет у Београду

Russian Geographical Society · Founded in 1845

Faculty of Geography · Lomonosov Moscow State University

Универзитет у Бањој Луци · University of Banja Luka

WASWAC

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**Publisher**
Faculty of Geography, Lomonosov Moscow State University



**Printed online**
17.07.2023.

**ISBN**
978-5-89575-265-4


**Moscow, 2023.**

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## CONTENT

# TRANSBOUNDARY WATER AND SEDIMENT POLLUTION – ANALYSIS OF MONITORING RESULTS IN SERBIA

**Nebojša Veljković, Tamara Perunović Ćulić, Ljubiša Denić, Tatjana Dopuđa Glišić, Ivana Marić**

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**Keywords:** Danube river basin, transboundary profiles, sediment

## Abstract

The paper presents results of sediment and surface water quality as part of the monitoring carried out by the Environmental Protection Agency based on the annual program adopted by the Government of the Republic of Serbia. An analysis of sediment quality for the period 2012-2017 and water quality for the year 2021 was presented for transboundary profiles on rivers Danube (Bezdan – entrance profile, Radujevac – exit profile), Sava (Jamena – entrance profile) and Tisa (Martonos – entrance profile). Selection of the profile was made according to the representativeness criterion of obtaining an insight into possible impact of cross-border pollution in the Danube river basin. Aim of the analysis is to present a "historical record" of sediment quality, which with current water quality results on same profiles, indicates possible cause-and-effect relationships. International criteria based on an empirical approach were used for sediment quality assessment, regarding laboratory data like the responses of benthic organisms to exposure to polluted sediment. The following criteria indicating the mean and extreme value of the negative effect on active invertebrates were used: severe effect level (SEL), probable effects level (PEL), effect range median (ERM), toxic effect threshold (TET). For assessment of sediment pollution in terms of the content of heavy metals, recommended values "Quality target" by the International Commission for the Protection of the Danube River (ICPDR) were used, and in terms of the content of organic micro pollutants maximum permissible values according to Serbian regulations. In the final considerations, a recommendation was made to innovate the sediment quality study for a new period 2018-2022, initiating the definition of quality standards for treated sediments, which will expand existing regulations governing the area of landfills and waste, taking into account specific properties of material dredged from the river bottom.