

Vplivi podnebnih sprememb na prometno infrastrukturo

mag. Rok Fazarinc, univ. dipl. inž. grad.

Povzetek

V prispevku je predstavljen poplavni dogodek, ki se je zgodil 4. avgusta 2023 in je po intenziteti in obsegu bistveno presegel do sedaj znane poplavne dogodke na območju Republike Slovenije. Ocenjene povratne dobe dogodka na najbolj prizadetih območjih ob Meži, Savinji, Kamniški Bistrici, Savi in Sori presegajo 500 let. Pretoki poplavnih vod so bistveno preseglili vrednosti relativnega povečanja pretokov zaradi pričakovanih podnebnih sprememb glede na predvidene podnebne scenarije.

Večina prometne infrastrukture je načrtovana in izvedena na podlagi hidrološko – hidravličnih izhodišč z upoštevanjem krajših povratnih dob (20 ali 100 let) in in slabo definirano dodatno varnostno višino. Najbolj intenzivni procesi so se dogajali na hribovitem območju, kjer vzporedno z odtokom voda potekajo intenzivni procesi erozije, premeščanja plavin, plavljenja plavja in plazjenja.

Z namenom zmanjšanja ogroženosti pred navedenimi procesi so v prispevku predstavljeni posamezni pristopi za povečanje odpornosti, predlogi dodatnih analiz in preveritev odpornosti na dogodke, ki presegajo s predpisi določene okvire.

The impact of climate change on transport infrastructure

Abstract

The contribution delineates the flood event of August 4th 2023, whose intensity and extent significantly surpassed previously documented flood occurrences in the area of the Republic of Slovenia. he estimated return periods of the event in the most affected areas along the Meža, Savinja, Kamniška Bistrica, Sava, and Sora rivers exceed 500 years. The flow rates of floodwaters have significantly exceeded the expected values of relative flow increases due to climate change compared to predicted scenarios.

Most of the national transportation infrastructure is planned and designed based on hydrological-hydraulic studies, considering shorter return periods (20 or 100 years) and somewhat poorly defined additional safety margins. The most intense processes were observed in the mountainous area, where intense erosion, sediment transport, flooding of debris and landslides have occurred.

In order to reduce the risk regarding these processes, different approaches to increasing resilience, proposals for additional analyses and verification of resilience to events exceeding the regulatory frameworks are presented in the contribution.
