



Croatia - EFAS partner feedback for 2021 and short overview of recent development

VEPAR Project - Improvement of Non-Structural Measures of Flood Risk Management in the Republic of Croatia

PROJECT NUMBER: KK.05.2.1.07.0001

DURATION: 6 September 2019 – 5 September 2023

PARTNER: Hrvatske vode (Project applicant) and DHMZ (Project partner) will implement Project activities in partnership

TOTAL BUDGET: 28.214.939,71 € (85 %) EU and 4.979.107,00 € Croatia

GOAL: The purpose of the VEPAR project is to improve the non-structural flood risk management measures under the responsibility of the project beneficiaries, Hrvatske vode and DHMZ, which will achieve the targeted result of flood risk reduction in the Republic of Croatia, with other positive results related to the improvement in monitoring, analyses and finding optimal solutions for the integral and sustainable management of water, the aquatic environment and flood risks in the Republic of Croatia.

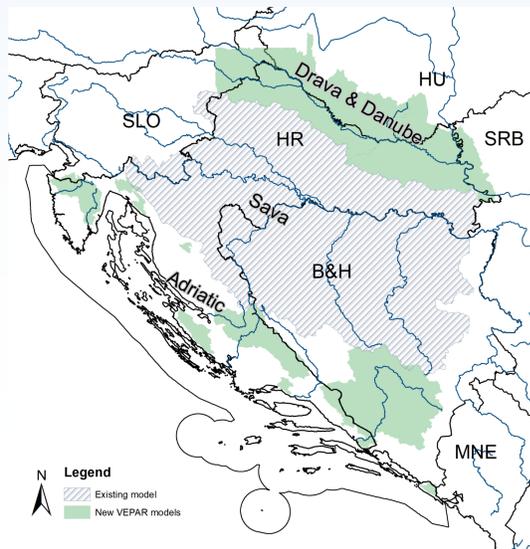


Figure 1.: Operational hydrological forecasting



Modernisation of the National Weather Observation Network in Croatia – METMONIC

PROJECT NUMBER: KK.06.2.1.02.0001

DURATION: October 2017 – June 2023

TOTAL BUDGET: 45.251.908,75 € = 85% EU + 15% HR

GOAL: The establishment of a modern and high quality system of automatic surface meteorological stations, meteorological-oceanographic buoys and remote measurement systems, including meteorological radars. In total, 450 modern automatic meteorological systems will provide traceable, reliable, high quality and timely information on the state of the atmosphere and the sea throughout the territory of the Republic of Croatia.



Figure 2.:
a) Installing a buoy
b) Installing a radar station
c) New radar coverage – web product

AIRQ – Expansion and Modernisation of the National Network for Continuous Air Quality Monitoring

PROJECT NUMBER: KK.06.2.1.02.0001

DURATION: May 2017 - December 2022

PARTNER: Institute for Medical Research and Occupational Health (IMI)

TOTAL BUDGET: 16.606.742,31 €, 85% EU 15% HR

GOAL: The implementation of the AIRQ project establishes a comprehensive system of measurement and control of air quality in Croatia in order to meet the European and national criteria for the environment and human health.

The purpose of the project “AIRQ – Expansion and Modernization of the National Network for Continuous Air Quality Monitoring” is to improve and optimize the system for managing and monitoring air quality in urban areas, zones and agglomerations. Lead beneficiary is Croatian meteorological and Hydrological Service (DHMZ) and the partner institution is the Institute for Medical Research and Occupational Health (IMI).



Figure 3.: Measuring stations locations



Figure 4.: Measuring station in Rijeka



EFAS formal notifications sent to Croatia during 2021

FLOOD NOTIF.	ISS. DATE TIME	FLOOD NOTIFICATION		
		FORMAL	PREDICTED PEAK	REAL PEAK
1	05.02.2021 12:05	Neretva (Adriatic Coast)	10.02.2021 60%>5 yr RP, 15%>20 yr RP	12.02.2021 Metković river gauge RP=2-5 yr
2	21.07.2021 13:23	Danube (Danube)	23.07.2021 100%>5 yr RP	24.07.2021 Batina & Ilok river gauges, RP cca 1.25 yr
3	31.10.2021 10:08	Neretva (Adriatic Coast)	05.11.2021 69%>5 yr RP, 31%>20 yr RP	06.11.2021 Metković river gauge RP<1.25 yr

Table 1 EFAS formal notifications for Croatia and realized records for 2021.

The **Neretva** river - one of the largest rivers of the eastern part of the Adriatic basin. 95% of its watershed is in Bosnia and Herzegovina where HE power-plants with large dams (higher than 150,5 metres) provide flood protection, power and water storage. Its total length is 225 km of which the last 20 km in Croatia.

The **Danube** river - Europe's second largest river basin, with a total area of 801,463 km² over 19 countries. Its total length is 2857 km of which 188 km in Croatia within its middle flow section. DHMZ developed and operationally run hydrological stage forecasts for waterways at Croatian part of Danube from 2018.



Figure 5.: The Neretva basin in Bosnia and Herzegovina (B&H) and Croatia (HR)



Figure 6.: The Danube basin and future 5 flood hydroforecasting locations in Croatia