

Project

The project focuses on developing technical and human capacity of the NMHSs, enhancing the information management and sharing systems, improving the cooperation with national civil protection and disaster management agencies, as well as the cross-border cooperation. It is intended to fill qualifications gaps related to inadequate hydrometeorological monitoring, technical and human resources, insufficient regional cooperation and data sharing.

The project will provide a number of training events and workshops for experts from IPA beneficiaries to enhance their capacity in monitoring and forecasting hazardous hydrometeorological phenomena. Special events are foreseen to bring together key players at national level in Disaster Risk Management and Response, Civil Protection and Planning, to explore ways to enhance the cooperation between NMHSs and the relevant institutions and end-users. It is anticipated that these actions will lead to better incorporation of DRR into policies, planning and legislation for development, resource management and sector management.

Expected Results

- Improved information and dissemination in support of Early Warning Systems and Risk Assessment for weather, water and climate-related hazards;
- Improved cooperation and coordination between NMHSs and civil protection and disaster management agencies;
- Improved cross-border cooperation and relations between countries, contributing to peace-building;
- Integration of SEE countries into the European Meteorological Infrastructure (e.g., ECMWF, EUMETNET, EUMETSAT);
- Enhanced human capacity to produce higher quality products and services in support of DRR;
- Improved quality of monitoring data through implementation of WMO standards for maintenance and calibration of hydrometeorological instruments.

Partners

UN Partners:



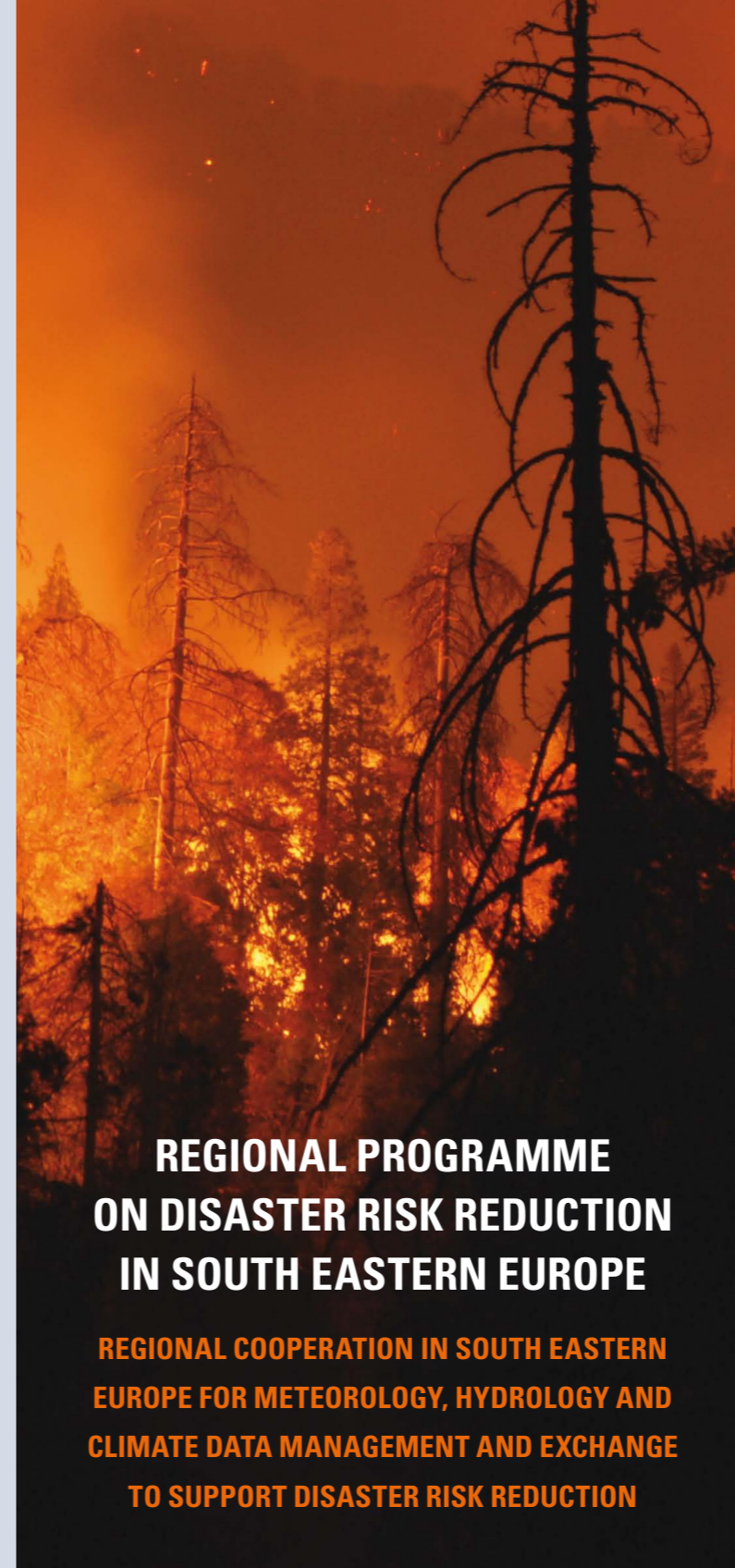
European Meteorological Partners:



Other Project Partners:



NMHSs of
IPA beneficiaries



REGIONAL PROGRAMME ON DISASTER RISK REDUCTION IN SOUTH EASTERN EUROPE

REGIONAL COOPERATION IN SOUTH EASTERN
EUROPE FOR METEOROLOGY, HYDROLOGY AND
CLIMATE DATA MANAGEMENT AND EXCHANGE
TO SUPPORT DISASTER RISK REDUCTION

Objectives

This project aims at reducing the vulnerability of South-eastern European countries to natural hazards such as drought, flood and forest fires. In recent years, these hazards have resulted in disasters with large economic and humanitarian impact.

Natural hazards are unavoidable, but a good knowledge of the hydrometeorological hazards and the associated risks, combined with a system for timely and accurate predictions of weather and climate extremes can lead to better preparedness and mitigation of the negative impacts of the disasters through reducing losses in infrastructure, property and human lives.

The project focuses on building the national and regional capacity of the National Meteorological and Hydrological Services (NMHS) in the provision of reliable weather, water and climate products and services. This includes hazard analysis to support risk assessment, forecasts and warnings with adequate lead time to support the Disaster Risk Reduction (DRR) activities of the IPA beneficiary countries and the region as a whole. Building better cooperation between the NMHSs, as the providers of hydrometeorological information and services, and the agencies responsible for civil protection and emergency response, as well as, with the main economic sectors, is a primary objective.

The project is also intended to underpin a regional approach to DRR by enhancing the interoperability of the national systems and the cross-border exchange of information related to hydrometeorological hazards.



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Releasing water on fire

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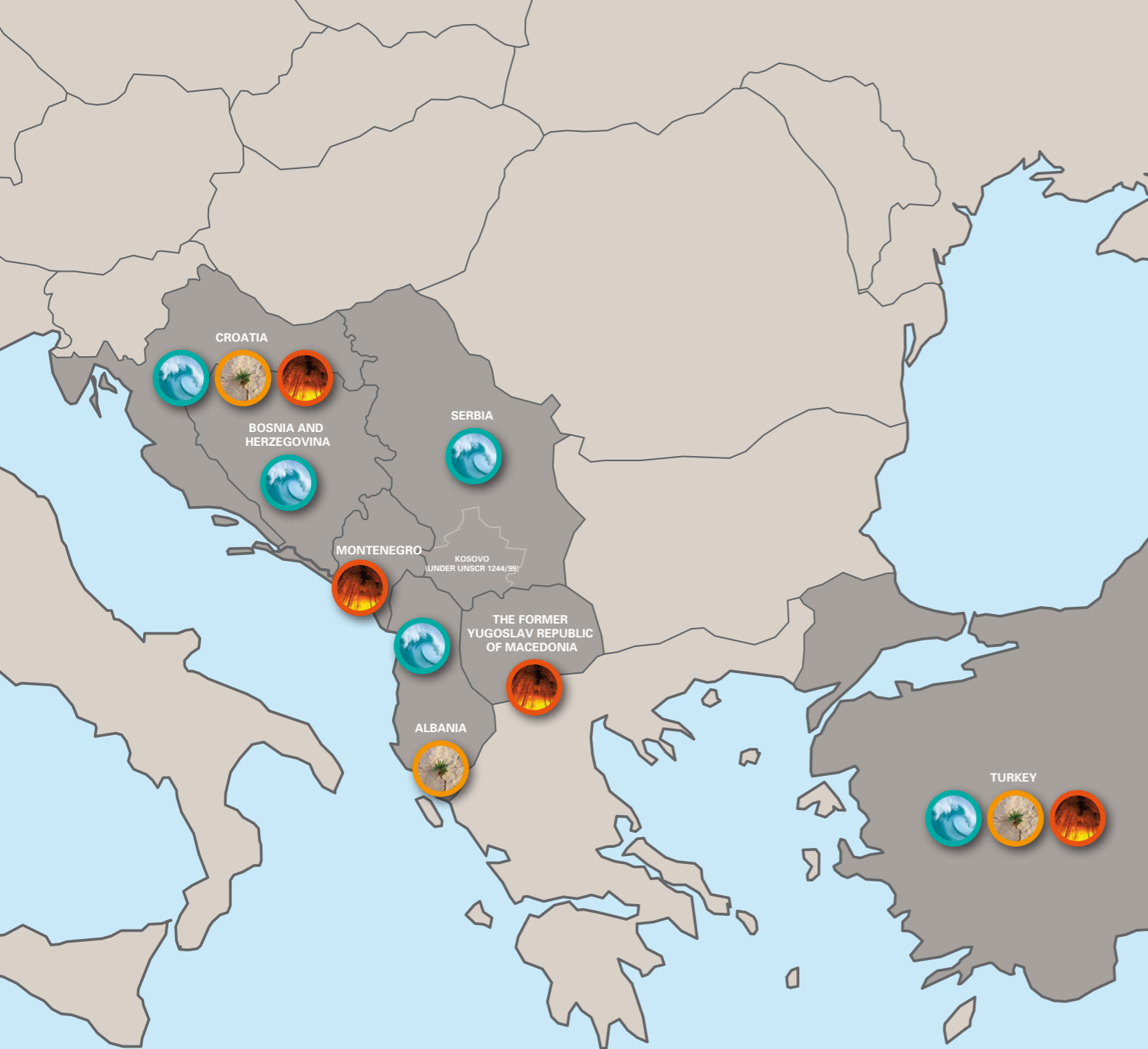
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FLOODS **DROUGHTS** **FOREST FIRES**

- In the **mountainous regions**, flash floods are frequently caused by heavy rainfall.
- Large floods occurred during the last three years in **Albania, Croatia and Serbia**.
- 290 100 people in **Bosnia and Herzegovina** were affected by flooding over the course of 6 years (1999-2005).
- Drought and drought-related hazards are severe in **all SEE countries**.
- In **Albania** 3 200 000 people were affected by droughts between 1967 and 2005.
- Droughts caused an estimated damage of 330 000 000 USD in **Croatia** from 1996 to 2006.
- Annual precipitation is projected to drop by up to 12% (a decrease of 50% may occur during summer months).
- **All SEE countries** are highly vulnerable to extreme temperature and prone to fire-related hazards.
- Wild fires in **FYR Macedonia** caused 13 563 000 USD damages between 1993 and 2006.
- Approximately 60% of **Turkey's** forest area is located in fire sensitive areas (European Forest Fire Information System)
- Between 1990 and 1997, an area of 10 000 ha in **Croatia** was burnt. (GFMC)

Achievements

Institutional Framework

The National Policy Dialogues (NPD) conducted at each IPA beneficiary country brought together key stakeholders at national level in Disaster Risk Management and Civil Protection and developed recommendations to the respective Governments for enhancing the national systems for preventing and mitigating the impact of natural hazards. NPDs helped in highlighting the role of the NMHS in Disaster Risk Management and in development of National Disaster Risk Reduction (DRR) Platforms and Early Warning Systems. Furthermore, regional cooperation and coordination in DRR have been promoted through a series of events, resulting in drafting a regional DRR road map.

Risk Assessment

Floods and droughts have been identified as two major hydrometeorological and climate related hazards posing significant risks in the region. Regional workshops have been carried out to improve technical capacity for flood and drought risk assessment across several impacted sectors including agriculture and water resource management. Experts from NMHSs, ministries of agriculture, water management agencies and other relevant institutions have been trained on floods and droughts data, databases, metadata, mapping and analysis tools to support flood and drought risk assessment. Self-assessment capacities have been developed in order to evaluate the existing national systems for flood and drought risk assessment. Based on these assessments, concrete project proposals for capacity development of the NMHSs, together with other ministries and technical agencies, have been developed. A regional proposal on hazard risk assessment has also been prepared.

Integration to European Meteorological Infrastructure

The integration into the European Meteorological Infrastructure is a major driving force in developing the capacities of the NMHSs to produce improved products and services in support of Disaster Risk Reduction. All targeted countries made significant progress in understanding the roles and functions of the regional organizations and several countries succeeded in their applications for membership in ECMWF and EUMETNET. The integration of the IPA countries to the European Meteoalarm system has been progressed through implementing the Meteoalarm requirements at national level. The integration to the international Meteoalarm web service is forthcoming.

Introducing the Climate Change Adaptation into the regional DRM Agenda

The South-East European Climate Outlook Forum (SEECOF) helped sub-regions to develop strong and sustainable working mechanisms to prepare seasonal weather outlooks through the collaboration of climate experts from many countries under the leadership of the South-East European Virtual Climate Change centre (SEEVCCC). The identification of the needs of sectors like water management, energy and disaster risk management has been initiated and the awareness of the users in the benefits of seasonal forecasting in their operational planning has been raised. The overall capacity in utilizing and downscaling of products provided by leading long-range forecasting centres has been significantly improved.

Capacity Building

State-of-the-art software for processing hydrometeorological data (METVIEW-4 from ECMWF), provided to several IPA beneficiary countries, raised significantly their capacity to utilize data and products from leading forecasting centres and produce high quality local products, leading to the improvement of accuracy and timelines of warnings for hazardous phenomena. Regular calibration and maintenance of the observing instruments was improved in cooperation with the WMO Regional Instrument Centre (Slovenia). The secondment of experts to the Regional Drought Management Centre (Slovenia) contributed to strengthening its methodological and capacity building functions. The excellent collaboration with EUMETSAT provided for filling a long-lasting gap in receiving and utilizing satellite information in monitoring and forecasting of hydrometeorological hazards.

The project succeeded in its aim to build capacity by providing ten high-quality training events on different subjects related to Disaster Risk Reduction. More than 220 experts and officials actively participated in the training seminars and workshops organized by WMO in collaboration with UNDP, UN ISDR, ECMWF, EUMETNET, EUMETSAT, the Regional Drought Management Centre, and the Regional Instrument Centre



RASTKO RADIVOJEVIC
Flooding at the river Tamis in Pancevo, Serbia