

MOSAIC

Managing protective forests facing climate change compound events

**SUPPORT BY THE EUROPEAN UNION
THROUGH THE INTERREG ALPINE SPACE PROGRAMME: € 1,758,624**

Climate change (CC) is undeniably responsible for the increase in climate-related disasters affecting Alpine communities. These phenomena are often the result of compound events, a combination of multiple climate-related hazards that contribute to socio-ecological risks. One of the key drivers of the increased vulnerability are changes in forest ecosystems.

Forests provide essential ecosystem services that support human well-being and play a critical role in the mitigation of CC, but their health and stability are also threatened by CC.

MOSAIC objective

Promoting climate change adaptation and disaster risk prevention, resilience, taking into account eco-system based approaches

MOSAIC focuses on hazard-resilient and sustainable protective forest management coping with climate changes' multiple dimensions, which is essential for managing climate-related risks. In order to support regional and Alpine climate action plans, the project aims to collect, harmonize and share data, models on Alpine climate-related disasters and trends. The project partners strive to raise awareness among foresters, risk managers, decision makers and the public through an Alpine network of forest living labs.

HOW?

MOSAIC is structured in 3 distinct work packages:

DOJO: Data mining and prOJection of climate change effects on the Alpine Space forests












NAZCA: NaturAl haZards modelling platform for analysing climatechange Compound events on AS protective forests

FORCE: Forest labs fOr Raising awareness on resilienCe of protectivE forest coping with climate change adaptation

Its consortium consists of **12 partners** from the **6 Alpine Space countries**, with different but complementary fields of expertise (forest management, modelling, natural hazard prevention,...) and sectors (researchers, managers, service providers) with national or regional implementation.

MOSAIC is an **action-research project** that relies on project partners recognized for their applied research activities and involvement in the **science-decision-action triptych**.

Duration : 2022-2025

- Lead partner:**
-  FR INRAE - National Research Institute for Agriculture, Food and the Environment, Grenoble
- Project partners:**
-  AT BFW, Federal Research and Training Centre for Forests, Natural Hazards and Landscape, Department of Natural Hazards
 -  AT IIASA, International Institute for Applied Systems Analysis, AFE/BNR
 -  CH HAFL, Bern University of Applied Sciences
 -  CH CERC, Swiss Federal Institute for Forest, Snow and Landscape Research
 -  DE UGOE, University of Göttingen
 -  IT DISAFA, University of Torino
 -  IT TESAF, University of Padova
 -  IT DPC/SPL, Veneto Region, Civil Protection, Safety and Local Police Department
 -  FR ONF, Forests National Office
 -  SI SFS, Slovenia Forest Service
 -  SI UL, University of Ljubljana

Website: <https://www.alpine-space.eu/project/mosaic/>

MOSAIC WILL PROVIDE:

- Comprehensive stocktaking and assessment of spatially explicit past and projected climate (2050-2100 according to IPCC scenarios) and climate-related disaster data for the AS, made accessible via a webGIS atlas.
- A platform offering natural hazard and risk models upgraded for integrating the consequences of climate change on AS forests and on their ability to efficiently protect against natural hazards.
- Provision of data, experience and knowledge to support the definition of a Joint Alpine scheme for implementing an integrated and adaptive management of Alpine forests with protective functions that are coping with climate change impacts.

Photography by: S. de Danieli

