

PROJECT NEWSLETTER

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Let's remind you what the X-RISK-CC project is about

The X-RISK-CC PROJECT, is a collaborative initiative aimed at addressing the challenges posed by extreme weather events in the context of climate change. Led by a consortium of partners across the Alpine space region, the project focuses on enhancing preparedness, risk management, and resilience to mitigate the impacts of floods, droughts, windstorms, landslides, and other extreme weather phenomena. Through innovative approaches, scientific research, and stakeholder engagement, X-RISK-CC seeks to develop effective strategies and solutions to safeguard communities, infrastructure, and ecosystems in the face of a changing climate.



WHAT IS NEW IN PILOT AREAS

Arly catchment area aims to join integrated risk management efforts

After a workshop in early 2024, a second meeting was held with the Arly catchment area and PARN to discuss new recommendations regarding future concurrent risks. The Arly catchment area aims to join the GIRN (Integrated Natural Risk Management) initiative, led by the PARN research centre (Alpine Pole for Natural Risk Prevention), to improve their risk management system in the face of climate change. A regional event allowed them to explain their decision to institutional and financial partners as well as other local authorities that may be concerned with extreme weather conditions. A workshop conducted in late 2024 clarified future risks expected by 2040 through scenario planning.



*Val
d'Arly,
France*



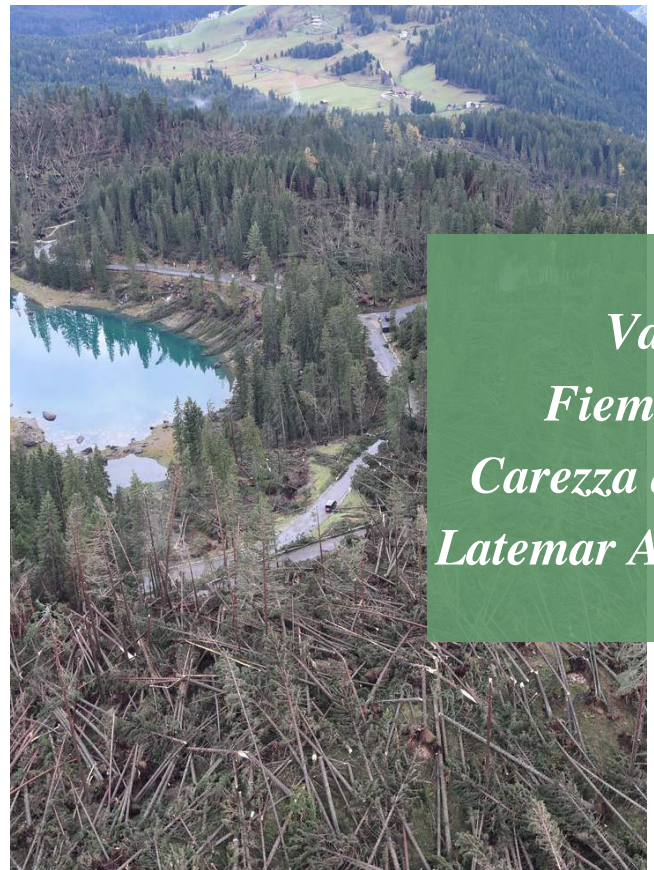
*Garmisch-
Partenkirchen*

New risk management measures planned for landslide hazards

In the beginning of summer 2024, Garmisch-Partenkirchen was affected by prolonged, heavy precipitation. As a consequence, eight large landslides in the Ferchenbach catchment have been reactivated, increasing the potential of secondary hazards like river blockage and enhanced sediment supply to the river. Representatives from Garmisch-Partenkirchen and TUM (Technical University of Munich) have exchanged on possibilities for landslide early warning systems in order to complement risk management measures in the area. In the next workshop with local stakeholders, they will also discuss how Garmisch-Partenkirchen can prepare for future scenarios of increased sediment load and its effect on downstream infrastructure.

Until now 2024 has been very rainy and hot in Trentino

The first 10 months of 2024 were exceptionally rainy, with record values for most provincial weather stations. At Trento Laste station, operational since 1921, rainfall had already reached 1,288 mm by October 18, this surpasses the previous record set in 2014. For reference, an average of 783 mm has been recorded at this time of year in the past 103 years. The driest year was 2003 with only 435 mm. Exactly as observed at global average level, the average temperature has also been very high until now, only beaten by 2022 and 2023, confirming the general and widespread warming trend induced by climate change in the region.



Val di Fiemme, Carezza and Latemar Area



New guidelines for the evaluation of the avalanche risk after storm Vaia

As part of X-RISK-CC activities, areas severely affected by complete deforestation due to the Vaia storm were analysed. The loss of the forest's protective function exposed infrastructure and settlements to new or increased risks of rock falls, landslides and/or avalanches. These areas, labelled in the provincial Hazard Synthesis Map as "areas to further investigate" for avalanche risk, require specific studies prior to any intervention. Field studies in ten pilot areas led to the issuing of new dedicated guidelines for technicians, which will support the re-evaluation of the avalanche risk and its management in the areas hit by Vaia, taking into account forestry interventions and natural changes.

Improving risk management and preparedness in South Tyrol

Under the X-RISK-CC framework, Eurac Research and AFBS (Civil Protection Agency, Autonomous Province of Bolzano) are identifying potential improvements in risk management in South Tyrol based on the analysis of past and future extreme events.

Workshops with local experts focused on the management of past events and revealed the need for a nowcasting tool providing short-term high-resolution weather forecasts, which would enhance preparation and enable real-time responses to hazards. To address this, AFBS is launching an initiative to develop such a tool for South Tyrol.

Additionally, the need for a stronger link between the preparation and response phases has been identified. To address this, province-wide workshops are planned in municipalities to update contingency plans and strengthen coordination between local authorities and the provincial administration.

Eurac Research also developed climate risk storylines for the pilot areas helping risk managers understand how climate change might shape future weather extremes and their consequences. Based on these scenarios, local workshops will be held by the end of 2024 to assess necessary future measures and tailored action plans will be created.



*Wipptal
&
Stubaital*



Testing a specific hydrological forecast in Gorenjska – Sora catchment

As part of the project, Slovenian partners are enhancing cooperation between the national hydrological service and municipal civil protection units. By incorporating feedback and addressing the specific needs of Civil Protection teams from the municipalities of Škofja Loka, Železniki, Gorenja Vas - Poljane, Žiri, and Medvode, they are developing innovative communication methods and more efficient data access. These advancements are crucial for quick and effective action during flood events.

One key initiative is the creation of a dedicated hydrological forecast for the Sora catchment. On Sunday, September 8, 2024, they successfully conducted their first test notification. This system informs key Civil Protection representatives about the likelihood of high-water levels being exceeded at hydrological stations or the risk of heavy rainfall across the basin. Forecasts are available in three critical timeframes ahead of a potential flood: 0 to 24 hours, 24 to 48 hours, and 48 to 72 hours, providing timely and reliable information for emergency preparedness and response.

4th project partner meeting in Škofja Loka, Slovenia with a field-oriented focus



On the 9th and 10th of October 2024, the Sora Development Agency and Slovenian Environment Agency, hosted the 4th project partner meeting in Škofja Loka, Slovenia. During the meeting, we reviewed the activities carried out so far. We concluded with an analysis of past and future extreme weather events. The partner meeting was enriched with two field visits. Click [here](#) to learn more about our activities during our visit in Slovenia. Currently we are preparing risk assessments and planning the second workshops for key stakeholders involved in extreme weather events.



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