

Legend of hazard:



Fire due to drought

Extreme events of heavy rain

Risk Assessment and Sustainable Protection of Cultural Heritage in Changing Environment

Identification

CASE STUDIES IDENTIFICATION

Climate change related topics of ProteCHt2save are based on the hazard terminology developed by the UNISDR (United Nations International Strategy for Disaster Reduction).

Following this terminology the origin of hydrometeorological hazards is either:

- > Atmospheric
- Hydrological
- > Oceanographic

Examples are

- Tropical cyclones
- Floods (including flash floods)
- Drought
- Heatwaves and cold spells
- Coastal storm surges

SELECTED PILOT SITES

Seven pilot sites with planned actions linked to climate change and variability associated with hydrometeorological and climate extremes are the centre of ProteCHt2save's work:

- Ferrara (IT) heavy rain
- Troja (CZ) flood
- Kaštela (HR) fire, heavy rain, sea flood
- Kocevje (SI) flood
- Krems (AT) flood

Vulnerability

BARRIERS AND CHALLENGES

Typical barriers which influence vulnerability of cultural heritage on different territorial levels (depending on the countries' specific legal regulations) are:

- Lack of appropriate procedures related to risk management and coordination of cultural heritage
- Lack of knowledge about cultural heritage assets (location, condition, values)
- Low resilience awareness
- Lack of historic environment resilience supporting approaches
- No transnational resilience management in extreme events

TYPICAL DISASTERS AND IMPACT

Extreme weather events in Central European countries vary in frequency, duration and magnitude among the considered countries and according to their geographical location.

The most commonly observed damages are to:

- > Site or landscape (i.e. erosion, earth deposition, tree damage)
- > Built heritage (i.e. roof, façade, sculptures and monuments damage)

Protection

PLANS & STRATEGIES

ProteCHt2save compiles the information on existing management plans and strategies in Europe dealing with the protection of cultural heritage on different levels:

- Strategies aimed at improving peparedness for cultural heritage as well as risk prevention and mitigation
- Strategies focusing on the response to disaster or emergency
- Strategies intended to return to preevent operations, also involving the repair and restoration of damaged cultural heritage assets

BEST PRACTICE

One of the major outputs of ProteCHt2save will be a handbook compilation featuring

- Best strategies
 - Best practices
 - Recommended rescue plans
 - Training exercises

CULTURAL HERITAGE RESCUE TEAMS

In each partner country Cultural Heritage Rescue Teams will be established. Based on the findings of the project these teams will enable rescue and treatment of cultural heritage in emergencies and take Central

- Pécs (HU) heavy rain
- Bielsko-Biala (PL) heavy rain
- Moveable heritage (i.e. furniture, objects of art, books)

European cooperation in the protection of our common heritage to the next level.



Sea flood in Kaštela (HR)



Water damage to cultural heritage (exercise Danube University Krems, AT)



Rescue drill (Danube University Krems, AT)

Dr. Anna Maria Kaiser Danube University Krems https://www.donau-uni.ac.at anna.kaiser@donau-uni.ac.at

Lead: Prof. Alessandra Bonazza, PhD

National Research Council of Italy, Institute for Atmospheric Sciences and Climate http://www.isac.cnr.it/

a.bonazza@isac.cnr.it

