

Facts

KC-FU

Order no: MSB1598 – June 2020

Cascading Natural Hazards: Visualizing, Learning and Understanding (CAZULU)

The aim of CAZULU is to better understand, visualize and learn from cascading natural hazards of extreme weather (drought and/or long-term/intensive rainfall), flooding, erosion and landslide in Sweden? We hypothesize that understanding, visualizing and learning are key to dealing with multiple natural hazards, and thus we address how we can move from traditional hazard and risk maps into smart visualization to better understand and deal with multi - hazards events and their effects.

With a focus on international examples and case studies in the Göta Älv and Ångermannälv river valleys in Sweden, we take up the following questions: (i) Why do cascading natural events occur? (ii) How, where and when do they happen? (iii) What are the societal consequences of these events? (iv) How can we visualize the patterns and consequences of the cascading events? (v) What can we do to prevent them? (vi) How can we prioritize measures to deal with them and (vii) What can we learn from visualizing cascading natural events to become more resilient in Sweden?

CAZULU develops smart visualizing techniques to better understand, localize and manage these events and their effects. The project develops scenarios of potential cascading patterns of natural events that occur prior to a landslide and those that occur following a landslide in the case study areas. These scenarios are developed and tested together with high school students to develop the innovative visualization techniques and learning material.

More about CAZULU

CAZULU is an interdisciplinary research project coordinated by the Swedish Geotechnical Institute (SGI) in cooperation with Research Institutes of Sweden, RISE, to better understand, visualize and learn from multiple cascading natural events in Sweden.

CAZULU is a 5-year project running from 2019 until June 2023. The project is co-financed by MSB and Formas.

For more information, please contact:

Lisa Van Well
Project Coordinator, SGI
Lisa.vanwell@swedgeo.se

Arianit Kurti
Senior researcher
RISE Research Institutes of Sweden
Arianit.kurti@ri.se

Ulrika Postgård
Research coordinator at MSB's
Research & Evaluation Section
Ulrika.postgard@msb.se