

Hazard and risk analyses

Between 1972 and 2015, floods, mudflows, landslides and rockslides caused around 300 million Swiss francs of damage annually in Switzerland. An understanding of the potential hazards must be gained, in order to effectively protect densely populated areas. Comprehensive hazard maps have been created for Switzerland for this purpose. Risk analyses evaluate the financial impacts of these hazards and allow an efficient use of financial resources for protective measures. They also enable authorities to take account of the hazards and develop their spatial plans accordingly.

Keeping hazard maps up to date is an ongoing process. Towards this end, we offer the following services:

- Reviewing of hazard maps. Plausibility checks of the assumptions made and comparison with flood events.
- Updating of hazard maps. All work steps (hydrology - weak point analyses - 1D and 2D modelling of floods - verification in the field - maps and documentation)
- Project management on behalf of authorities. Management of the tendering process, technical and administrative support for hazard map projects

We offer the following services pertaining to risk analyses in the natural hazards sector:

- Risk analyses. Event and impact analyses, identification of the risks (people, property and consequential damages), evaluation of the risks
- Risk-based action planning. Recommendations on how to deal with risks, cost-effectiveness analyses for protective structures
- Development concepts. Risk-oriented spatial planning