

Flood Protection Policies and Climate Change Adaptation in Austria, Germany and Switzerland (*Flood-Adapt*)



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Despite uncertainties about the exact impacts of climate change, many experts (including the IPCC) emphasise that “climate change contributes to an increase in the likelihood and adverse impacts of flood events” (European Union, 2007) and that flood risk management should address climate change adaptation proactively.

The Research Project Flood-Adapt

Flood-Adapt analyses how climate change adaptation is integrated in flood risk policies at and across federal and regional levels in Austria, Germany and Switzerland. We will analyze and compare the three countries because the degree to which their public authorities have mainstreamed adaptation concerns in flood protection policies varies considerably - despite similarities in terms of political systems (all three federal), topographies, and flood risks.

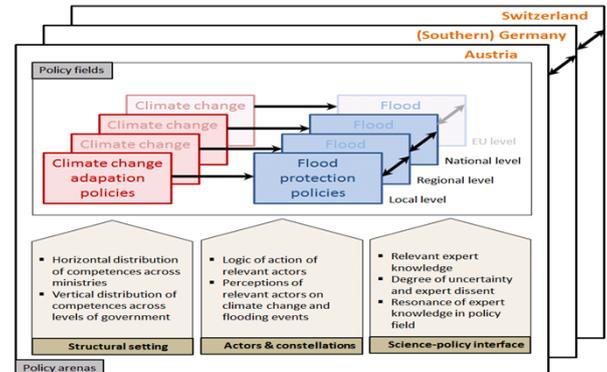
Two major challenges stand out in improving flood protection in the wake of climate change, and these two challenges guide the Flood-Adapt project:

- The impacts of climate change on future flooding events in Europe are highly uncertain and vary considerably between regions. Currently, most scientists agree that socio-economic changes (such as land use change) are more important than climatic ones.
- Therefore, adapting flood protection to climate change is usually overshadowed by adapting to socio-economic changes. Furthermore, respective policy changes are usually part of a more profound policy change (or even a paradigm shift) away from structural flood defence towards multi-sectoral/integrated flood risk management.

Project Steps



<u>Research Focus #1: Science-Policy Interface</u>	<u>Research Focus #2: Flood Policy Change</u>	<u>Cross-case Comparison</u>
<p>How does science inform flood protection in Austria, Germany and Switzerland and how do both, scientists and policy-makers, deal with uncertainties regarding climate change impacts and socio-economic developments?</p> <ul style="list-style-type: none"> • What is the state of scientific knowledge on the linkage between climate change and flooding events (including regional variation) in the three countries? • How are scientific findings transferred into the policy-domain? How do scientists and policy-makers interact? • How do policy-makers deal with scientific uncertainties? • Under what circumstances are they prepared to adhere to the precautionary principle and adapt current policies to possible future changes despite of uncertainties? 	<p>How do the three countries currently pursue flood protection and how do they aim to adapt it to future socio-economic developments and climate change impacts?</p> <ul style="list-style-type: none"> • How do governments currently pursue flood protection? What are their main approaches and policy paradigms? Are these approaches/paradigms implemented as intended? • What role does adaptation to climate change and to socio-economic developments play in flood protection? • How do the three countries aim to make flood protection more effective in the future, given that uncertainties and regional variations of climate change impacts and socio-economic developments are considerable? 	<p>What similarities and differences did we find between the three countries regarding both foci and how can they be explained?</p> <ul style="list-style-type: none"> • How different are flood protection policies in the three countries? Are differences restricted to strategies/action plans or do they also reach into actual flood protection projects? • Why are they different? Are policy differences based on science or on different politics? What role does climate change adaptation play? • What factors explain how policy makers frame the linkage between flood protection and climate change adaptation? What determines whether they follow the precautionary principle or the uncertainties argument?



Project Goals

1. Develop a conceptual framework and methodological approach to analyse the integration of climate change adaptation into flood policies from a comparative perspective.
2. Provide a systematic comparative analysis of how governments currently pursue flood protection and how they aim to adapt it to uncertain future developments.
3. Better understand what factors determine the degree to which possible climate change impacts are mainstreamed into flood protection policies and how adaptation measures are integrated.
4. Enhance reflexivity and learning among adaptation and flood protection policy makers.