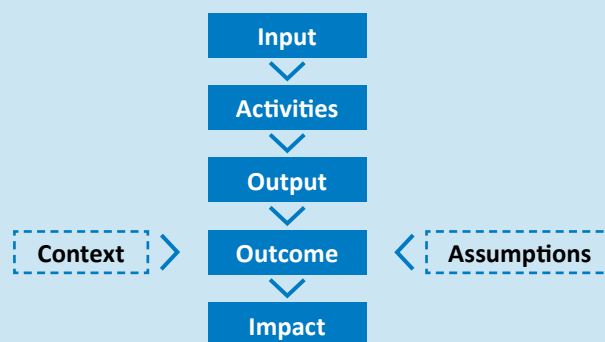


Unpacking climate impact CHAINS (UNCHAIN)

How do local authorities, businesses and residents, as well as sub-national and national authorities, NGOs and transnational organisations, make decisions on climate change adaptation? The UNCHAIN project aims to improve the climate change risk assessment framework to enable local actors to make informed decisions and take action to adapt to climate change. The research approach is based on the existing concepts of the impact chain and insights from the practice of co-production of knowledge. To support climate change adaptation capacity building, UNCHAIN has involved a wide range of actors.

Key Findings

- To drive future advancements in assessment results, it is crucial to involve stakeholders in the process to leverage their combined knowledge, experience, and data.
- Applying the Impact Chain framework can promote a more sustainable and transformative adaptation by means of integrating discussions about various adaptation pathways into the participatory Impact Chain development process.
- Even though co-production processes have proven to be effective for identifying needs and relevant indicators, the final users of climate risk assessments should bear in mind that the results might be biased by their own subjective judgement.
- The outcome of analysing climate risks can vary widely depending on which socio-economic assumptions are used as a basis for the expected societal development. Therefore, socioeconomic scenarios should be systematically integrated into climate risk assessments.
- Any climate risk assessment is affected by large uncertainties at different levels. While this can be unavoidable, it is important to characterize and as far as possible quantify the various uncertainties involved. At the same time, identifying the uncertainties must not lead to inaction when it comes to adaptation. Thus it is crucial to move from the current predict-then-act towards a new reflect-then-act



A guiding framework for the evaluation.

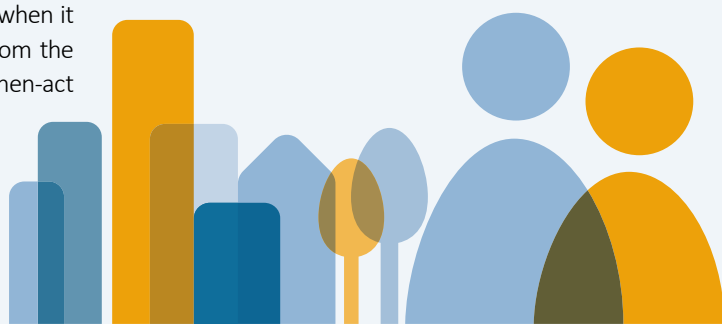
modus operandi in climate change adaptation. This is particularly important when moving from incremental towards more transformational types of climate change adaptation.

- Transboundary climate risks can - namely the adverse effects of climate change impacts or adaptation measures that cross borders - be successfully illustrated using the impact chain framework, albeit not as instrumentally as for the conventional local forms of climate risk.

Reflect-then-act methodology to find resilient climate solutions

UNCHAIN emphasises the involvement of stakeholders in the climate risk assessment process to design solutions that reflect their needs and perspectives, address social vulnerability and ensure equitable adaptation. Instead of the traditional predict-then-act approach, it promotes a flexible reflect-then-act methodology that embraces uncertainty.

It also advocates the systematic inclusion of socio-economic scenarios alongside climate change scenarios for a comprehensive risk analysis. To effectively identify transboundary climate risks, investment in methodological innovation, data collection and decision support tools is essential.



These resources empower stakeholders to make informed decisions to mitigate climate challenges. By following these principles and working with stakeholders, we can develop inclusive, adaptive and resilient climate solutions.

Addressing transboundary climate risks with innovative methods

International actors need to invest in innovative methodologies, data collection and decision support tools to address transboundary climate risks and promote cross-jurisdictional cooperation in adaptation planning. The issue of risk ownership for transboundary climate risks should be carefully analysed and clarified to ensure an effective response.

Collaborate more effectively with stakeholders

Stakeholder collaboration has benefits for researchers and stakeholders, but challenges remain in adopting a flexible, iterative co-production approach. To overcome these challenges, co-production processes require thoughtful design, facilitation and ongoing reflection. Joint iterative learning can be facilitated through a theory of change and a tailored monitoring, evaluation and learning framework.

To better understand climate risks and adaptation options, it's recommended to use the impact chain framework and to improve this framework by more systematic involvement of users, placing greater emphasis on decisionmaking under uncertainty, and including transboundary climate risks.

About AXIS

The ERA-NET Consortium AXIS (Assessment of Cross(X) - sectoral climate Impacts and pathways for Sustainable transformation) aims to promote cross-boundary, cross-community research with the overall goal to improve coherence, integration and robustness of climate impact research and connect it to societal needs. To this effect, AXIS aims to overcome boundaries between science communities through inter- or transdisciplinary research projects. <https://jpi-climate.eu/programme/axis>

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<https://www.vestforsk.no/en/project/unpacking-climate-impact-chains-new-generation-action-and-user-oriented-climate-change-risk>

