

Workshop Output WS 2.4.F

Title of workshop: Climate risk assessment: from climate impact research to adaptation planning.

Prepared by

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* Workshop participants that have submitted contributions to the workshop

General questions to please be answered in the workshop reporting

- 1) What was the focus of the workshop? Methodological issues and advancements or thematic issues (systems knowledge, transformation knowledge, target knowledge). Please check and fill in the matrix in the output section.

Methodological issues and advancements	Thematic issues		
	System knowledge	Transformation knowledge	Target Knowledge
x		x	

- 1) Which key points were discussed in the workshop as a whole? (This should be more a synthesis and not simply a summary of the key points in each presentation)

Question 1: Do we have enough understanding on climate related hazards, vulnerabilities and impacts in mountains to come up with mountain specific climate risk assessments? Where are the gaps?

- General:
 - o Lacking process understanding on the contribution of vulnerability factors to risk, in particular non-technical vulnerability factor (e.g. socio-economic vulnerability)
 - o Data scarcity and missing data on climate, hazards (including past events) vulnerability and exposure.
 - o Lacking scenarios on socio-economic aspects (e.g. population, buildings, ...) for projection of future vulnerability and exposure, which his often as important for the risk assessment as future climate
 - o How to deal with heterogeneity of local context, e.g. different forest owner and forest management practices
 - o Define the system borders relatively wide, include all relevant socio-economic aspects which contribute to the vulnerability of a system, e.g. livelihoods.
- Specific hazards / risks:
 - o Location of permafrost areas in the alps as input for risk assessment of dewing permafrost
 - o Data scarcity on climate and vulnerability data in tropical Andes

Question 2: How can climate risk assessments inform and support the adaptation process (planning, implementing, monitoring, evaluation)

- Involve stakeholders from the beginning in any climate risk analysis.
- Understand institutional context (who is responsible for what) to address and involve the suitable stakeholder
- Conduct a scenario analysis and confront stakeholder also with unexpected impacts of climate change and scenarios with high uncertainty.
- Consider the risk awareness and willingness to act in the design and implementation of a climate risk assessment
- Particular when working with indigenous people: make them aware of the slow-onset changes which they may have no experience with
- Controversy discussion: Inform about the costs of climate impacts and risk and compare that with the costs of adaptation (loss + damages, cost-benefit analysis).
- Stress and include more the aspect of awareness and self-responsibility when identifying adaptation options
- Think about existing legal, institutional or financial tools (e.g. regional plans, financial incentives) when designing adaptation. Mainstream climate adaptation into this tools (e.g. plan adaptation measures within a landscape plan or an agricultural development plan).
- Evaluate from a scientific point of view existing evaluation strategies

2) What is your opinion on the current state of knowledge concerning your topic(s) (focusing on mountain regions)? *Please check and fill in the matrix on the following page.*

Overall assessment of the state of:

What is your personal opinion on the current state of knowledge concerning the topic(s) addressed in your workshop. Please tick the appropriate field. Brief explanations are appreciated.

State of knowledge	Very good	Good	Poor	Very poor	Not appropriate	Comments
Global			x			<i>A general understanding of climate risks and root causes exist on global level and is reported by the IPCC</i>
Regional				x		<i>On a regional scale, climate information is widely available, but Vulnerability and Exposure factors are hardly understood and data is scarce</i>
Scattered case study-based knowledge		x				<i>The presentations demonstrated that for various case studies risk assessments have been conducted, often in the scope of adaptation planning.</i>
Knowledge about past states/trends			x			<i>Past trends for climate are usually well studied. Anyhow, often data about past events and in particular the impacts of past events is missing.</i>
Knowledge about current situation		x				<i>The current situation of climate related risks is often well monitored, at least in developed countries. In developing countries there is still a big gap even in monitoring the current situation.</i>
Knowledge about future states/trends/thresholds				x		<i>Only for climate future trends are available. What is missing are any scenarios on vulnerability and exposure, which are often as important as climate risk.</i>
Knowledge about the system				x		<i>The physical root causes for risk are partly well understood, particularly for well studied hazards such as avalanches, floods or landslides. In contrast, the role of vulnerability factors is hardly understood</i>
Knowledge about shaping pathways to more sustainable development (transformation knowledge)			x			<i>In general, there is a clear concept how to get from the understanding of risk to adaptation planning. A climate risk assessment is a standard element in adaptation planning.</i>
Knowledge about envisaged goals (target knowledge)		x				<i>The goal of most risk assessments is not scientific understanding but adaptation planning. Adaptation planning is a established request in national and international policies (e.g. National Adaptation Plan, ...)</i>

