

Workshop Output Form TT 3.4.A

Title of workshop: Towards a Mountain Resilience Report: Regenerating mountain systems by Systemic Innovation

Prepared by

Moderators	Tobias Luthe, Romano Wyss
Participants*	Open Think Tank – about 20 Participants

* 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	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)

Main aims:

Grow a **bottom-up actively engaged movement** to gather and synthesize needed “global/comparative” data, and link with local case-specific data (relational processes in-situ/real-world labs) to understand, incubate and accelerate systemic innovation in mountain regions – focused on **output and doing**.

Cooperate in **new working modes**: scientists, designers, engineers, activists, local inhabitants, interest groups, industry, policy and politics, open source data, crowd science,..

1. Benefits of knowledge systems on mountain resilience

Goals and objectives, usage and output, What for and why?

Relevant resilience indicators

Integration of stakeholders and communities

2. Indicators and data collection

Existing quantitative «large scale» and modeling data (ecological/social/economic)

Open source, digitalization, citizen science

«New» type of «real-world» data on socio-cultural-economic processes, observations and experiments «in situ»

Linking to existing initiatives and (data) networks

3. Do-ability & next steps

system boundaries, review paper IPCC, funding opportunities, core group, timeline

- 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>Systemic Design/Innovation on pressing sust. challenges in mtns is a new angle and very underrepresented spec. in science, and as well for mountains. More happens e.g. in large cities</i>
Regional		x	x	x		<i>Specific to different mountain regions</i>
Scattered case study-based knowledge			x	x		<i>Lacking on systemic innovation – or not documented</i>
Knowledge about past states/trends					x	
Knowledge about current situation			x			<i>We don't know much about the readiness/preparedness in different places</i>
Knowledge about future states/trends/thresholds		x	x	x		<i>We know much about the "ideal" regenerative solution – but very little on how to get there</i>
Knowledge about the system		x				<i>We know a lot about the theory and the concept – but we don't get it done</i>
Knowledge about shaping pathways to more sustainable development (transformation knowledge)			x			<i>We know a lot about it – but we don't get it done</i>
Knowledge about envisaged goals (target knowledge)			x			<i>Goals are set, but the way there is not!</i>

Ideas for questions to potentially be answered by the moderators after the workshop in the reporting (please delete what is not useful):

- 1) Were there any new insights and/or findings presented? If yes, which ones?
There were some new angles expressed to approach an MRR, such as thinking beyond a “classic 300 pages monograph” towards an array of flexible modules fit to the specifics of different mountain places, and to the users or recipients. Such as short instructional videos, the medium for young people to accept, done by “role models” - for young people as well by young people. From and for locals, and as well from and for globally relevant systemic innovation challenges.
- 2) What was the main message/consensus of your workshop?
High interest – complex challenge – very relevant – interesting start – need more time – need very different skillsets, methods and approaches – let’s do it. But we need to work differently for a different type of problem. A complex dynamic problem requires systemic approaches that are also “organic”.
- 3) Were major uncertainty issues identified and discussed? If yes, which ones?
Present academics often find it unusual and difficult to practice design thinking – to start with the solution, to envision beyond current experience. This led to some uncertainties and feeling the lack of more structure, more concepts.
- 4) Was there any significant controversy (if so, what?) that requires new data (or further exploration of existing data) to resolve the issue? (explain)
For example, the geographical context for what a MRR should relate to; the target group (which is “everyone” since this is a systemic innovation question)
- 5) Were new research questions raised? If yes, would working on these questions need to involve other disciplines (which ones)?
By design, the here envisioned MRR is systemic and inter-/transdisciplinary
- 6) Did the workshop identify research topics (e.g. environmental drivers other than climate) that are, in your opinion, currently greatly underrepresented in mountain research, but should urgently be addressed?
It proved that we need to become better in collaborating across “work and thought cultures”, i.e. academics who are trained to describe and monitor and identify problems, but not to solve them. The more complex and urgent the challenges become, the more relevant it is to employ new ways to solve these problems. In here, we would need to bring together academics, designers, engineers, activists, artists, local people from mountain communities, and alike. So new working modes for new challenges and complexities of systemic nature.

Further Comments