

Adaptation Laboratories

The potential for radical realignment of adaptation paradigms

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Introduction

In climate change adaptation research, interest in the creation of ‘laboratory’-like spaces has grown recently (IIED, 2011). These are more akin to collaborative innovation endeavours rather than literal scientific laboratories (Evans and Karvonen, 2014). Labs may offer important opportunities for ensuring that climate change adaptation activities are more legitimate and relevant to local priorities.

The notion of safe spaces (Pereira, et al., 2015) has inspired a conceptual framework that has the potential to open up the way laboratories are framed in adaptation discussions, linking policy, research and practice, and thus enhancing adaptation action.

Adaptation laboratories - opportunities and limitations

Through a literature review we have identified the following interesting features in current Adaptation Laboratories:

- The project Action Research on Community Adaptation in Bangladesh (ARCAB), is enabling long term learning and experiments on community-based climate change adaptation (IIED, 2011).
- Projects as experiments can work better when designed in smaller components, more qualitative and less expert-driven, with incremental planning processes (Reed et al., 2015).
- Labs can reinforce spatial patterns of resource allocation depending on who is selected for the lab and who falls outside of it (Evans and Karvonen, 2014).
- A sensitivity to power relations, which are implicated in preventing alternative adaptation visions, is a strong enabler for adaptation actions to succeed.
- Adaptation labs can be shaped by external social forces such as policy contexts and economic incentives. External forces can impact the transformative potential of the changes generated, as well as the potential for upscaling and continuity.
- There needs to be greater focus on the opportunities for social learning and the incorporation of diverse perspectives and knowledge structures as part of lab environments.

Principles of the safe space	Linkages with climate adaptation context	Key practical considerations
Emancipation and empowerment: An emancipatory space in which diverse social actors can freely express different views.	Power as a force for good within climate change adaptation. How climate adaptation interventions create conditions for vulnerable groups to participate meaningfully.	Frames of power explicitly recognised and the key dimensions dealt with (e.g. recognition, fear of losing power). Pathways for upscaling changes, taking account of external constraints are identified.
Ensuring reflexivity: Broadening reflexive processes of engagement with the definition of sustainability problems.	Reflexivity is about how climate adaptation problems are defined, who is doing the defining, and what are the prescriptions for action.	Consideration of different knowledges informing adaptation action (expert, non-expert) as well as culturally-driven adaptation priorities. Increasing reflexivity can function as a basis for broader trust building strategies.
Knowledge co-creation: Active knowledge co-creation through deep dialogue and interaction with different stakeholders and across disciplines.	Goal is co-creation of adaptation visions where people’s risk priorities and adaptive capabilities are foregrounded Increase space for cognitive and experiential diversity in the design of climate adaptation interventions.	Consideration of who is doing the co-creating? How are knowledge brokers and beneficiaries identified? Timing is important. Identifying good windows of opportunity for enabling and accelerating knowledge co-creation.
Transformative learning: Enable learning on how to alter thinking, practice and social organization for adaptation.	Transformative learning for climate change adaptation with high uncertainty for the specific low-level scenarios.	Fixed norms are a potential barrier to alter thinking and practice. Transformative learning requires a setting in which failure and surprise events are taken as learning opportunities.
Nurturing innovations: Niche creation and management for harnessing ideas and capabilities for adaptation.	Adaptation laboratories are not just about collaboration but also about the creation of innovative solutions.	Innovations emerge naturally from the adaptation laboratory.

Box 1: Resilience provision of Ecosystem Services and Environmental Virtual Observatories in remote mountain environments - Mountain EVO

The EVO example shows the value of creating a transdisciplinary interaction lab-like environment both facilitating outside interventions and emergent priorities and learning goals from CC-affected groups. Through creating a safe space for multi-stakeholder dialogue the research team was able to co-create information platforms for climate adaptation with the communities, instead of adopting a more top-down approach where the EVOs are designed by scientists and then transferred to local contexts.

Key features:

- EVOs often comprise web-based information sharing technologies
- Represent virtual learning spaces focused on environmental changes and drivers;
- So far, the focus has been in remote mountain natural resource dependent communities (Nepal, Peru, Kyrgyzstan and Ethiopia);
- Citizen science approach to data collection ensuring process reflects local priorities;
- Multiple actors involved in use and collection of information.



Engagement with agro-pastoral communities in Mustang, Nepal in the design of EVOs (photo by Praju Gurung, copyright Mountain EVO project) <http://paramo.cc.ic.ac.uk/espa/>

Rethinking Adaptation Labs

Our aim is to unlock adaptation labs’ potential to help create the necessary enabling conditions for inclusive climate adaptation. Adaptation laboratories are therefore re-focused towards the co-creation of ideas and social innovations supporting climate change adaptation action. We draw from our experience on a ‘labs-like’ project focusing on environmental sustainability of climate-sensitive mountain systems (See Box 1).

The table presents a framework of safe spaces in relation to climate change adaptation as well as practical design considerations, where safe spaces are centred around the five key principles of; emancipation, reflexivity, knowledge co-creation, transformative learning and nurturing of innovations.

Conclusion/ future implications

Focusing on alternative visions and people's risk priorities entails rethinking the boundaries of labs as they relate to existing social practices, institutions and social relations. In a sense then, labs are about the creation of temporarily privileged spaces that allow for crucial social processes to unfold. Once such alternative systems take hold, the external interventions that maintain a barrier to existing social relations can be removed.

References

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