



## Leverage Points: Aiming to Embed TD Case Studies within a Broader Research Project

The Leverage Points project addresses the underlying, foundational issues of how complex social-ecological systems can be transformed via Leverage Points. Leverage Points are places in complex systems where a small shift can lead to fundamental changes in the system as a whole (Meadows, 1999). We examine Leverage Points relating to institutional structures (ReStructure), human-environment connections (ReConnect), and knowledge creation and use (ReThink). The project is being conducted by a team of 8 professors and junior professors, 5 post-docs, and 9 PhD students.

We examine Leverage Points in two case study systems (Lower Saxony, Germany; and Transylvania, Romania) across three levels of analysis that centre on place-based transdisciplinary case studies:



Conceptual Level: Develop a systems based conceptual framework for socio-ecological change.



Empirical Level: Detailed, multi dimensional regional analyses.



Transdisciplinary Cases: Deep, participatory, place-based case studies.

**In this poster, we reflect on how the TD cases are embedded within the project, and identify challenges and opportunities for further embedding over the final 18 months of the project**

## How are TD Cases Embedded within the Project?

Every researcher has a number of research questions (RQs) that they seek to answer in the project. We can consider how the TD cases are embedded in the Leverage Points project by examining how these questions relate to the TD case.

We explored their relation in terms of **location** – do they study the case study location (TD), a different place (Place), or the ‘system’ more generally (System)?; and in terms of the **direction of learning** – do they learn from the case (From), with the case (With), or do they provide knowledge to feed into the case (Into)? And is this by design (Design) or just that it possibly could (Possible)?

Based on this exercise, we are able to ask ourselves a number of questions as a project team.

**If the TD cases are to be central to the project, where do we want the darker colours to be?**

Knowledge generated here is mainly by the post docs responsible for implementing the case. **Do we need to share this responsibility more broadly?**

	TD	Place	System
With	How are nature connections with specific places formed?		
From		What role does knowledge play in the outcomes of decision making?	
Into design		Undefined – food councils; focusing on core topic emerging from research	
Into possible		How socially acceptable are renewable energy schemes?	Systematic review of policy decline and failure

No/few RQs
Some RQs
Many RQs

We have fewest questions directly engaging with the TD cases, or learning with the case studies. **How does our research really respond to the needs of the cases?**

Knowledge generated here is potentially useful to the cases. **How do we tie it into the cases?**

## What Challenges do we Face in the Final 18 Months?

**We asked the researchers what challenges they perceived in engaging with the case studies**

Researchers are frustrated that they could not originally design their research questions around the case studies - they had to submit their research proposals before the cases were fully defined. Now, it is difficult to adjust individual projects to fit to the cases.

Researchers feel overwhelmed by the volume of work they have to do for their own research and project activities. Contributing to the case studies can seem like an additional commitment.

Researchers experience confusion about how much they should focus on their individual work, and how much on the cases. This may come from their supervisors; there is commitment to the cases being central to the project, but pressure to meet the professor’s research interests.

## How do we Create Spaces for Collaboration in the Final 18 Months?

We have an intention to cooperate across the project, but a predominant culture of individual research. The project has not yet matured into a deeper collaboration. **So how do we foster a space for this to occur? How do we promote reflexivity, reflectivity and an iterative, discursive approach?**

Directly engage professors as the link between projects and cases.

Encourage full-team engagement in case study activities, and explicitly discuss their roles.

**Please, add your thoughts and suggestions here:**