Biosphere Reserves (BR) as Engines of Sustainability Transitions?

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Goal: Analysis and discussion of the interplay between Biosphere Reserves and novelties ((innovations, grassroots initiatives) in the context of Sustainability Transitions in two rural case studies with a Social Network approach

Introduction

- the '**great acceleration**' continues and jeopardizes the resilience of the whole earth system
- radical, multidimensional societal changes (= **sustainability transitions**), deemed necessary
- **novelties developed in niches** contest and potentially reconfigure the existing **regime**

BR and Sustainability Transition

- **protected areas with 3 zones**
- **world network (WNBR)** of 701 BR in 124 countries
- Ambition to be **'model regions' for sustainable development**

How do regional novelties relate to sustainability transitions?

- different **types of innovations** (e.g. products, process, social)
- Mostly **new-to-the-region**
- majority **stays in own expertise**
- not really **radical**
- **multi- level**, increasingly **rural-urban linkages**

General Findings

MAB and WNBR a **global niche for new human-environment relations**

for a transition to an eco-economy

Hybrid actors between niche and regime build bridges or act as mediators

- **rural mountain areas** usually not considered as innovative because of **locational disadvantages**
- important for **conservation, access to ecosystem services,....**
- rural between **development, transition** and **conservation**

- seek to establish a dialogue between different actors and foster **innovations and sustainability transitions**
- exchange of good practice within the network

- **eco-economy** in the case studies: endogeneity, sustainability (cross-sector, short value chains, ...)
- **sustaineers** (sustainability pioneers): strong **social and cognitive proximity** to 'deep ecology' and BR
- '**conventional innovators**': sustainability as marked niche, **strategic alliances** with BR

Role of studied BR for novelties

- projects, shielding and nurturing
- provides 'institutional thickness'
- platform for new ideas
- unimportance of WNBR for locals

Figure 1: Biosphere Reserves and the MAB as a global niche.
Source: Own illustration 2019 adapted from Geels and Raven 2006

Figure 2: Multi-level embeddedness of innovations (red circles) in the regional network (grey); the size of the circles represents the betweenness centrality of an actor.
Source: Own illustration 2019 based on Geels (2002) and Ermann et al. (2018)

Ways these BR accelerate progress towards sustainability

Connect

Coordinate

Upscale

Copying
(e.g. projects)