Harvesting energy: People’s place-based perspective on mitigating climate change with renewable energy technologies

Diana Süßer MSc. and Dr. Martin Döring
Institute of Coastal Research, Human Dimensions of Coastal Areas and University of Hamburg, Institute of Geography, Germany

Motivation: Climate change and energy transition

Discussions on mitigating climate change revolve around the question of how to enable a low-carbon energy transition based on renewable energy technologies (RETs) such as wind and solar energy. Communities and individuals have increasingly been recognised in public and policy for making an important contribution to sustainable energy transition.

To improve local energy transition, a better understanding is needed of how people’s place attachment and meanings, and understandings of climate change shape innovation processes.

Theoretical background: Local entrepreneurship and community renewable energy

In the context of our study, local entrepreneurship involves the identification, evaluation and exploitation of opportunities by local individuals for community-based renewable energy.

Place is conceptually understood as an area of engagement and as a source for innovative activities that initiate and support processes of innovation diffusion. Entrepreneurs are conceived as innovators, change agents and/or leaders who contribute to shaping places and transforming local communities.

Results: From harvesting fields to harvesting energy

Grounded entrepreneur: Identification with the place “I do have the advantage that I am farmer by myself [...] and grounded so to say.” [Interview_R_#8]

Economic entrepreneur: Creation of local profit “...we recognise renewable energy is the future, also an economic future.” [Interview_R_#7]

Collaborative entrepreneur: Public participation “…the interest in operating collectively renewable energy in form of wind farms for more than 20 years. (R_#7:35-36)” [Interview_R_#15]

Communicating entrepreneur: Exchange, information, education “Yes, that it is transparent and understandable, what we want, and no mistrust arises.” [Interview_R_#8]

Innovative entrepreneur: Challenging and visionary individual “We are a bit proud here in the North that we are the innovators [...] We have built the first community wind parks.” [Interview_R_#8]

Change-making entrepreneur: Changer and distributor “And you can change something. I think that if I wouldn’t have started with solar energy here, it had started later.” [Interview_R_#15]

Networking entrepreneur: Social dialogue and integration “We have founded the federal association for wind energy here, the special interest group.” [Interview_R_#8]

Political entrepreneur: Strategic management “But he has another view point on many things. The farmer is transformed into a political agent.” [Interview_R_#8]

8 important characteristics of local entrepreneurs

Case study and methods: Interviews in a coastal municipality in Germany

Our research is based on qualitative interviews undertaken with 15 inhabitants of the coastal municipality of Reußenköge in North Frisia, Germany. Reußenköge is a low-lying coastal area characterised by a landscape of dikes.

Over the last two centuries, it developed from an average agricultural into a so-called ‘model-region’ for renewable energy. Nowadays, community-owned wind parks harvest wind and mainly privately-owned solar installations harvest sun’s rays to generate electricity and local economic profit.

Conclusion: Importance of investigating local perspectives of innovation processes

Place, climate change and entrepreneurs proved to be relevant analytical units for investigating the process of the local implementation of RETs.

The qualitative approach enabled us to empirically analyse the multifaceted interplay between place, climate change and local entrepreneurs.

We were able to identify 8 placed-based entrepreneurial characteristics promoting the local implementation of RETs in the municipality of Reußenköge.

The placed-based perspective proved to be important for a better understanding of local innovation processes and sustainable energy transition.