Climate-smart agroforestry

Climate-smart agriculture (CSA) is an integrated landscape management approach promoted by multilateral organizations to address the challenges of food security and climate protection.

It promises more holistic and integrated management of landscapes while reducing emissions, increasing productivity, and enhancing the resilience of local communities.

Agricultural production often leads directly or indirectly to the deforestation of tropical rainforests. To overcome this land-related conflict, climate-smart agroforestry is a specific form of CSA that aims for forest-related conservation agriculture.

As a sustainable land-use system that combines food crops and trees, agroforestry corresponds to forest protection and food security challenges.

In our research, we seek to investigate existing local climate-smart agroforestry initiatives concerning their potentials and limits in terms of institutionalization.

Research question

Under what conditions does climate change mitigation become politically institutionalized in the high-carbon intensive sectors of energy and agriculture at the subnational governmental level of democratic emerging economies?

Solar power

Solar power refers to electrical energy converted from sunlight. It can be generated by photovoltaic systems or by using concentrated solar power (in solar thermal power plants). Photovoltaics is the globally most widespread form of solar power generation.

Solar power is generally less environmentally and socially harmful to local communities than other alternative energy sources such as hydropower and biofuels.

Due to the wide availability of sunlight, especially in tropical and subtropical countries, solar power is crucial for low-carbon transformations.

The adoption of solar power is increasing all around the world. Costs have decreased significantly, and technologies have become available to more and more regions over time. However, in many countries with vast potential, solar power remains underutilized.

In our research, we seek to investigate existing local solar power initiatives concerning their potential and limits in terms of institutionalization.

Institutionalizing Low Carbon Development
INLOCADE

How to sustain climate mitigation efforts in the Global South

Universität Potsdam

TECHNISCHE UNIVERSITÄT DARMSTADT

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What we do

How can specific climate mitigation efforts trigger broader societal transformations?

All around the world, thousands of governance experiments initiated by state and non-state actors aim to reduce greenhouse gas emissions. At the same time, there exists a need for ambitious, inter-sectoral, and all-encompassing, societal low-carbon transformations to prevent us from dangerous human-made climate change.

Institutionalizing Low Carbon Development (INLOCADE) seeks to understand better how we can bridge the gap between very specific and practically-oriented governance experiments and broader societal transformations.

We analyze the processes, structures, and relevant actors for the political institutionalization of climate change mitigation in the high-carbon intensive sectors of agriculture and energy.

Our research focuses on the sub-national level in four emerging economies: Brazil, India, Indonesia, and South Africa.

Why it matters

Emerging economies like Brazil, India, Indonesia, and South Africa have witnessed enormous economic and human development over the last decades. Their success was, however, often accompanied by environmental destruction and societal conflicts. Achieving economic progress while at the same time securing social values and protecting the environment represents a significant challenge for the future.

At the global level, the fight against climate change and the successful implementation of the Paris Agreement very much hinge on developments in emerging economies like those at the center of the INLOCADE project.

Fostering low carbon development through the institutionalization of climate mitigation efforts represents critical challenges in the global fight against the climate crisis. Therefore, INLOCADE analyzes the processes and conditions for the political institutionalization of climate change mitigation.

We aim to understand why the political institutionalization of climate change mitigation moves at different speeds, and why in some cases there has been little progress or even a reversal of past achievements.

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