

Course M.Sc. Renewable Energy Engineering and Management			
Availability to other courses This module is offered as elective to the MSc programmes MEG, MSc. Geographie des Globalen Wandels; MSc. Environmental Sciences			Instruction Language English
Module No. 93936	Module name Global Sustainability Transformations in Local Contexts		Semester/return 3 rd Sem. / annual
Workload/presence 5 ECTS-P (150h/60h)	Prerequisite module(s) ---	Follow-up module(s) ---	No. of participants Max. 25
Teaching form Lectures, group work, presentations	Examination form Essay (indiv., 2000 words), case study (group, 3000 words), present. (group, 15 min.)	Start date 29.06.2020	Location Tba.
Module coordinator: Jun.-Prof. Dr. Cathrin Zengerling, Dr. Benedikt Schmid			
Additional teaching staff Guests tba			
Syllabus <p>Cities consume about 75% of global energy and material flows and are home to more than half of the global population – with a rising tendency. They are an increasingly visible actor in emerging polycentric environmental governance, engage in international legal regimes such as the Paris Agreement and transnational municipal networks (TMNs). Infrastructures and lifestyles in local systems are crucial for people's well-being within planetary boundaries. Many processes of sustainability transformations around energy, mobility, food, housing, and consumer goods are rooted in local systems. They offer room for experiments and niches and allow for first steps in diffusion and upscaling. Local governments can be closer to people and more responsive to specific local needs and conditions than higher levels of government. Local economies play a key role in value creation and capture.</p> <p>In this module, students learn about cities and municipalities as actors in an emerging system of polycentric environmental governance. They gain knowledge on the role of local governments within the Paris Agreement, TMNs as well as national state hierarchies in different legal systems and the respective local scope of action. We explore different modes of governing processes of transformation across different sectors (energy, mobility, food, housing and others) as well as scales (neighbourhood, city, translocal) in international case studies in the global north and south. The key forms of local decision-making (including referendums), formal as well as informal steering instruments including land use plans, urban development contracts and climate action plans are introduced. Students also get insights into the relationship and forms of cooperation between urban and (surrounding) rural areas in the context of the (energy) transition. With regard to local and community economies, students learn about (re)municipalisation, eco-social enterprises and community initiatives. We discuss alternative forms of ownership such as cooperatives and sharing schemes, in particular in the context of alternative economies and degrowth.</p> <p>The course is taught in an interactive manner. We will kick off our joint work with an explorative zero carbon walk in a Freiburg neighbourhood. Throughout the course, we present and discuss international case studies and students get the chance to deepen their knowledge in their main fields of interest. The course also encompasses an excursion to the new low carbon urban development project Dietenbach and discussions with representatives of the urban planning department.</p>			

Learning goals and qualifications

In this module students:

- develop a critical understanding of contemporary processes of urban sustainability transformations with a main focus on the sectors of energy, mobility, housing and food,
- understand the role of cities in emerging polycentric environmental governance, varying local scopes of action and key formal and informal steering instruments of urban governance
- discuss and reflect upon the role of law and planning in urban sustainability transformations,
- analyse academic publications, legal and policy documents and other planning-related materials,
- apply their knowledge to case studies of contemporary urban transformation processes in their field of interest
- compare, contrast and transfer their knowledge to other cases.

Classification of cognitive skills following Anderson & Bloom (2001):

1 = *Remember*: retrieving relevant knowledge from long term memory; 2 = *Understand*: determining the meaning of instructional messages (interpreting, exemplifying, summarizing ...); 3 = *Apply*: carrying out or using a procedure in a given situation; 4 = *Analyze*: breaking material into its constituent parts and detecting how the parts relate to one another and to an overall structure or purpose; 5 = *Evaluate*: making judgment based on criteria and standards; 6 = *Create*: putting elements together to form a novel, coherent whole or make an original product.

Recommended reading

Kraas, F., Leggewie, C., Lemke, P., Matthies, E., Messner, D., Nakicenovic, N., ... & Butsch, C. (2016). *Humanity on the move: Unlocking the transformative power of cities*. WBGU-German Advisory Council on Global Change.

Reading material will be provided during the course via the e-learning platform ILIAS.

Course prerequisites

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