

# Sustainable Energy Transitions in (West) African countries

**Thematic focus:** Most African countries have considerable renewable energy potentials and some have identified renewable energy as a strategic industry for promoting green economic development (Gallagher 2013). There is an array of scholarly work on energy sector reforms (Prasad 2008) and access of poor households to energy in Africa (Davis 1998; Madubansi & Shackleton 2006). However, a majority of research has been conducted in Southern Africa (Aylett 2010; Baker et al. 2014; Swilling 2014; Swilling et al. 2015; Power et al. 2016), and Eastern Africa (Murphy 2001; Simelane et al. 2011).

In some western countries, policies have been launched to allow for so called 'energy transitions' with ambitious sustainability targets. With the shift to 'energy transitions' the analytical focus has moved away from narrowly technical or economic studies to broader analyses of fundamental socio-technical processes of change (Baker et al. 2014; Newell & Bulkeley 2016; Power et al. 2016). A sustainable energy transition can be understood as a set of deep structural changes in energy systems, "that involves co-evolving markets, networks, institutions, technologies, policies, individual behavior and autonomous trends" (Verbong & Loorbach 2012: 7).

In this context, one interesting question is what the key structural drivers of sustainability transitions are, to what extent they are context-dependent, and what can be learned from cross-country comparisons. Some recent work on energy transitions in Africa (Newell & Bulkeley 2016; Power et al. 2016) has e.g. pointed out, that changes in the national, regional and local energy systems in many African countries need to be understood in the context of trans-national dynamics such as a growing involvement of actors from rising economies (especially China and India).

**Background:** The chair group of Sustainability Governance is part of the recently launched "*Maria Sibylla Merian Institute for Advanced Studies in Africa*" (MIASA, [www.mias-africa.org](http://www.mias-africa.org)) in Ghana. In this context, we are collecting information and are starting to build up a researcher network on the topic of (sustainable) energy transitions in (West) Africa.

**Possible thesis topics** could, for example, focus on:

- Identifying key actors and key drivers of change in the energy system of a (West) African country;
- Comparing system dynamics in two (West) African countries of similar starting conditions regarding, *inter alia*, energy policies, infrastructure, industry, energy users, discourses etc.;
- Exploring what is meant by "Sustainable Energy Transitions" in different Global South contexts;
- Exploring what sources of local knowledge and alternative epistemologies could be employed to promote truly emancipatory transformation of energy systems;
- etc.

**Theory and methods:** various types of policy and/or transition theories; document analysis; interviews

## References:

- Newell, Peter & Bulkeley, Harriet (2016): Landscape for change? International climate policy and energy transitions: evidence from sub-Saharan Africa. *Climate Policy*, online first.
- Power, Marcus, Newell, Peter, Baker, Lucy, Bulkeley, Harriet, Kirshner, Joshua & Smith, Adrian (2016): The political economy of energy transitions in Mozambique and South Africa: The role of the Rising Powers. *Energy Research & Social Science*, 17, 10-19.

**Starting date:** as soon as possible

**For how many students this topic is available:** several

**Supervisors:** [Philipp Späth](#) or [Michael Pregernig](#)