



SUSTAINABILITY TRANSITIONS IN ENERGY-RELATED INDUSTRIES: MANY PIONEERS – BUT WHERE ARE THE FOLLOWERS?

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Presenters: Giuseppina Siciliano, Aisha Al-Sarihi

What comes to your mind when you imagine the energy sector in Costa Rica? I encourage you to not open Google and brows statistics – close your eyes and imagine what it might look like. So, what do you see? Frauke Urban, Giuseppina Siciliano, Alonso Villalobos, and Anh Dang Nguyen took a close look at energy-related industries in Costa Rica and Vietnam. With about 98% of Costa Rica’s electricity coming from renewable energy sources, Costa Rica is considered the “green republic” of Central America. Notably, a sustainable development strategy was introduced as early as 1988, indicating the historical embeddedness of sustainable policies. As Giuseppina Siciliano explained, the small Central American country takes pride in its label as the green republic – thus, a continuation of this green path is a matter of reputation.

Vietnam, on the other hand, is sourcing around 40% of the country’s electricity from hydropower, the remaining share stemming from fossil fuels. On its path to a sustainability transition of energy-related industries, the South-East Asian country implements a Green Growth Strategy. Vietnam aims at the reduction of greenhouse gas emissions, the promotion of renewable energy, an increase of energy efficiency and the introduction of carbon trading. Sustainable policies are much less historically embedded, and the country’s autocratic political system does not allow for an active interplay with civil society. Further, decision-making processes are centralized at the state-level.

Let’s change venues one last time: I encourage you to imagine the energy landscape of the Gulf Arab States. It might not be surprising that the energy landscape in the Golf Arab States differs greatly from the ones in Costa Rica and Vietnam: Varying in between countries and years, the export of fossil fuels account for around 45 to 90% of the countries’ GDPs. The share of renewable energy in total electricity capacity ranges from 0.1% in Oman and Bahrain to 2% in the United Arab Emirates. Still, Aisha Al-Sarihi’s and Judith A. Cherni’s research portrays Oman’s motivation to adapt renewable energy technologies: A lack of economic diversification, the call for a sustainable development of the energy sector, and a rising energy demand fuel the support of renewable energy projects. Yet again, these projects depend on the favor of centralized, top-down decisions.

The presentations highlighted the multifacetedness and complexity, historical development, and institutional and social embeddedness of the energy sector. Sustainability-oriented actions for the energy sector are happening around the globe. But countries face significant challenges in the diffusion of a transition, both institutional and social. Centralization and top-down decision-making processes create barriers for many parts of civil society striving for an implementation of renewable energy technologies. Finally, growing energy demand is the central challenge that is yet to be overcome by all countries presented.