

# Editorial

## Multi-level Climate Governance: The global system and selected sub-systems

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**T**HE PARIS AGREEMENT (UNFCCC, 2015) HAS INTRODUCED A NEW GLOBAL CLIMATE GOVERNANCE APPROACH, WHICH REFLECTS A SHIFT towards interest-driven, opportunity-based and more voluntary actions by combining bottom-up with top-down elements (Falkner, 2016). Interactive learning and experimentation at different levels of global governance have become highly important, and these complex global interactions are increasingly regarded not as obstacles but as opportunities for innovation and interactive learning (Sovacool, 2011). Global climate governance relates not only to the legal system of the climate regime but also to various public and private initiatives at different scales and across sectors. Scholars studying the complex multi-actor and multi-sector characteristics of the system have therefore begun to conceptualize global multi-level climate governance as an opportunity structure for the generation and diffusion of climate-related innovation.

The topic of this special issues is climate governance within a multi-level and multi-sectoral global system. The work argues that global climate governance today aims essentially to activate the dynamic potential of each level of the global governance system, the level of world regions as well as the level of provinces and local communities. Horizontal peer-to-peer learning between countries, cities and regions, as well as vertical up-scaling of best practice, has created a dynamic of change. The cross-sectoral approach has become important as far as the mobilizing of economic interests (e.g. in the construction sector) and the use of co-benefits is concerned. This special issue intends to offer a better understanding of the nature and variety of, and linkages between, initiatives taken and governance functions delivered within the broader ‘climate governance landscape’ (Betsill *et al.*, 2015). It analyses various climate governance activities in the European Union (EU), India and China through a systemic perspective. The EU may be regarded as the strongest regional sub-system of the global system, although the BRICS countries of China and India play a comparable role, as countries both with a similar scope and with explicit multi-level climate policy activities.

The systematic dimension of global climate governance is described in the introductory article ‘Multi-level climate governance as a global system’ by **Martin Jänicke**. The author analyses the potential of the global climate governance system, which is characterized by a multiplicity of access points and incentives for innovation and interactive learning. It is regarded as a ‘multi-impulse-system’, where the sum of even weak impulses from different parts of the system can play the role of a strong instrument. The global multi-level climate governance structure is also characterized by a specific global knowledge base and a global policy arena, allowing for climate-related agenda-setting and the mobilization of interests at each level. It is taken as an opportunity structure for ambitious innovation-based climate strategies based on interactive lesson-drawing from best practice. The lesson to be learned at all levels of the system is the potential for economic co-benefits related to the socio-technical system of clean-energy innovation and the global clean-energy market.

The following article, ‘The EU system of multi-level climate governance’, by **Martin Jänicke and Rainer Quitzow** provides an overview of the regional structure of the global climate governance system. The authors understand the EU as a system where ‘multi-level reinforcement’ has been observed several times and which can be considered as a leader by example in global climate governance. They point to the fact that the EU has the world’s highest share of green electricity and since 1990 has made the largest reduction to its greenhouse gas emissions. They attribute the EU’s relatively successful performance in climate and energy governance to two main factors: (1) multi-level reinforcement and (2) the mobilization of economic interests at different levels of governance through low-carbon industrial policy. While the multi-impulse system has fostered

interactive learning from best practice and provided an opportunity structure for innovation and its rapid diffusion, the economic co-benefits of climate protection have been successfully mobilized by a multi-sectoral approach. As a result, sub-national levels of governance are beginning to assume an increasingly important role in reinforcing climate and energy governance. This is illustrated by examples from pioneer countries (Denmark, UK, Germany), as well as laggards and waverers in the field of national climate and energy policy.

Similar to the EU, India has applied measures and policies to take advantage of the systemic opportunities offered by multi-level climate governance. Although India is a nation-state and not a supra-national body like the EU, it is also a federal state with an explicit multi-level climate governance approach. **Kirsten Jørgensen and Christian Wagner** explore the bilateral cooperation between the EU and India in their article 'Low carbon governance in multi-level structures: EU/India relations on energy and climate'. Since 2000, the EU, a leader in global climate politics, has been looking for alternative avenues through which to enforce climate policy relations with other countries across the world. Employing a multi-level governance lens, the work explores EU/India bilateral energy and climate relations, finding that there are strong opportunities for mutually beneficial cooperation on low carbon development. Although the various forms of cooperation between India's national government and states do offer room for linkages between the EU and India, the authors find that neither side has been able to unleash the stimulating and accelerating impact that multi-level reinforcement could have on their energy and climate relations.

Focusing on India's multi-level system, **Radhika Khosla and Ambuj Sagar** examine the implementation of emerging multi-level governance in the climate arena for effective low-carbon technology deployment in developing countries, drawing on India's experience of energy-efficient buildings. They state that compared to the strong bottom-up movement of climate-related policy innovations in Europe, the Indian approach is more top-down. They underline the role of national 'missions' under the country's climate action plan under India's national government as ambitious strategic approaches. These missions rely on the active involvement of sub-national governments, private actors and international institutions and address various climate-relevant sectors. Specifically, the authors analyse how the key dimensions underlying technological change (technology, finance, knowledge and policies) flow across multiple levels (international, national and sub-national) to shape technology availability and deployment. In doing so, they highlight issues and conditions associated with effective technology diffusion in developing countries and their implications for the UN Climate Convention's Technology Mechanism, such as the need for a more effective involvement at the local level.

Finally, **Miranda Schreurs** in her article 'Multi-level climate governance in China' argues that multi-level governance within China's authoritarian state acts both as a constraint to the central government's ambitious pollution control and climate change goals and as an opportunity, which is used to promote innovation and experimentation and to further central government ambitions. She argues that China's multi-tiered administrative system has provided opportunities for the government to introduce and test new policies and programmes at the regional level before expanding them to the national level. The article also shows that the dramatic reduction in coal consumption since 2013 was heavily influenced by the sub-national level, although the national government originally took the lead. A strong motive for sub-national participation in the Chinese climate policy process was the burden of heavy air pollution.

The articles in this special issue show that global climate policy occurs within a system of multi-level and multi-sectoral governance with each level having its own potential. It provides a stable and even irreversible opportunity structure that offers several mechanisms which help to reinforce and maintain progress and which are crucial for a global agreement. While this dynamic system of multi-level governance is most advanced in the EU compared to other world regions, the concept proves helpful in explaining bilateral and global climate governance agreements. For example, the EU and India have intensified their climate and energy relations despite their differing approaches to international climate treaties. These differences can in part be seen as a direct result of the EU's unique multi-level governance structure, which allows for pioneering behaviour and individual leadership, as well as the unique characteristics of the system, which offers the potential for horizontal and vertical interaction between European and Indian actors operating at various levels. The case of India also shows that while meaningful action on climate change requires coordination from the international to the national and local levels, successfully managing such multi-level governance to create on-the-ground impact is far from trivial. This has particular implications for how

international actors engage with their counterparts in developing countries. Overall, the contributions of this special issue underline the character of global climate governance as a ‘multi-impulse system’, a system with its own inherent logic and dynamics.

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