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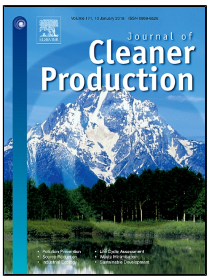

Competences of local and regional urban governance actors to support low-carbon transitions: Development of a framework and its application to a case-study

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Competences of local and regional urban governance actors to support low-carbon transitions: Development of a framework and its application to a case-study

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Abstract

Urban areas, being responsible for large shares of global greenhouse gas emissions, are important arenas for achieving global decarbonisation. However, the systemic challenge of decarbonisation requires deep structural changes – transitions – that take place across multiple scales and along entire value chains. We argue in this article that understanding the role of urban areas for global decarbonisation therefore requires consideration of their context and analysis of urban areas' contributions to transitions that extend past the individual urban area. We develop an analytical framework that proposes three principal ways urban areas contribute to low-carbon transitions and ten competences that regional and local governance actors have to support them. We apply this framework to the Cologne metropolitan area in Germany to demonstrate the ability of our framework to relate urban-scale activities to more encompassing low-carbon transitions. The paper concludes with future research possibilities.

Key words: urban transformation; structural change; multi-level perspective; framework; Cologne

1 Introduction

Urban areas are key engines of economic development and account for a disproportionately large share of countries' per capita gross domestic product (GDP) (Hammer et al., 2011; UN-Habitat, 2015; World Bank, 2010). The high level of economic activity in urban areas also produces negative externalities. In particular, cities are responsible for three-quarters of global greenhouse gas (GHG) emissions (IPCC, 2014; World Bank, 2010; Rosenzweig et al., 2010). For this reason, various studies have highlighted the importance of urban areas for mitigating climate change (e.g. Seto et al., 2014; OECD, 2010a). Bulkeley (2010) has examined the history and development of urban climate governance. She concludes that after two decades of policy interventions at the city level, a gap remains between rhetoric and action.