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Carbon flows, financial markets and climate change mitigation

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ABSTRACT

After initial debates and controversies, from the late 1980s onwards market instruments became fully accepted in environmental governance. However, with their inclusion in transnational and global environmental governance, market institutions seem to be in for a new round of discussions. Transnational carbon markets stand out in these debates, especially since the recent financial crisis made the world aware of the vulnerability of global financial markets. This paper uses a sociology of flows perspective to review current debates on the emerging global carbon markets as new – initially state-created – institutions to mitigate climate change. Do carbon markets aim primarily at climate change mitigation or mainly at financial gains? Who controls the functioning and outcome of these transnational carbon markets? And is there a risk of a global carbon market crisis, not unlike the global financial crisis? The paper concludes that current discussions and decisions on carbon market architectures are conducive for the future role of carbon markets in climate change mitigation. States are just one of the many actors shaping carbon markets and thus managing carbon flows.

1. Introduction

Since at least the mid-1990s, climate change is dominating the environmental agendas, first especially in developed countries but by now around the world. A wide variety of strategies and measures are proposed and implemented to mitigate climate change, at different scales. Many of these measures and strategies have a clear nation-state focus, as nation-states still must be regarded

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main actors, institutions and platforms for designing and implementing climate change mitigation. But new institutions, less strongly related to nation-states, are emerging. The design and implementation of carbon markets – the subject of this paper – is arguably one of the most far-reaching new institutions to handle climate change.

The use of economic and market institutions in environmental protection predates carbon markets and has a history of over 30 years. Experimenting with economic and market mechanisms, dynamics and institutions in modern environmental policy and governance was motivated by what has become known as state-failure (Jänicke, 1986): the shortcomings of the state in the provision of collective environmental goods. State failures related to, among others, high costs, low effectiveness, lack of forcing technological innovation, and low legitimacy. In the 1970s and 1980s many developed states started to implement environmental taxes, charges, and deposit-and-return systems. Later, this widened to the introduction of payments for environmental services and tradable emission rights. At least until the mid-1990s most market-based strategies, measures and institutions – also with respect to climate change – were organized and set by the nation-state and hardly crossed national boundaries. However, in entering the new millennium this seems to have changed dramatically. The emergence of transnational carbon markets forms perhaps the best evidence that market institutions in climate change mitigation (i) are no longer restricted to what Beck (2005) calls the 'nation-state container', and (ii) have gained in importance. Various carbon markets have been developed over the past decade and these are becoming increasingly interlinked. Globally, the 2010 value of the various carbon markets was $142 billion, more than double their 2007 value. The U.S. Commodity Futures Trading Commission believes carbon derivatives could become the most important commodity market ever; it "estimates that the carbon derivative market could be worth $2 trillion USD by 2017" (as cited in IATP (Institute for Agriculture and Trade Policy), 2009: 3). Hence, we are witnessing the design and implementation of a major new economic institution to mitigate global climate change. Newell and Paterson (2009: 80) rightly conclude that "climate politics are increasingly constructed by, through and for markets". But global market institutions in climate change mitigation are not undisputed, and debates amplified when the recent financial crisis made the world aware of the vulnerability of global financial markets.

Against this background, the main objective of this paper is to analyse emerging global carbon markets as new institutions to mitigate climate change. The paper focuses on three questions: Who is in charge of the development and implementation of transnational carbon markets? Can carbon markets be considered an instrument for mitigating climate change, or have they transformed into merely institutions for financial gain? And can carbon markets become equally vulnerable to system (near-)collapse as financial markets? The paper starts by developing a perspective instrumental for the analysis of carbon markets as climate change mitigation institutions. Subsequently, the current state of affairs with respect to global carbon markets is introduced, as well as the debates and critical issues surrounding them. Finally, to find answers to the questions formulated above, the issue of governability of carbon markets is addressed, drawing upon analogies with financial markets in particular.

2. Analysing carbon markets: flows and networks

Initially, market instruments and institutions in national environmental governance were looked upon suspiciously, especially following analyses of market failure as being the root cause of modern environmental problems (e.g. Schnaiberg, 1980). But during the 1980s and 1990s fundamental debates and controversies on and opposition against market institutions in national environmental and climate change governance pacified to some extent. The strong emergence of ecological modernization ideas and models, articulating the role of markets and economic/financial/private actors in environmental and climate governance, changed the focus of debate: the question was no longer whether, but how, where and to what extent markets and economic actors can best contribute to sustainability (e.g. Mol et al., 2009). This research programme further widened in governance studies (e.g. Kooiman, 2003; Treib et al., 2007) around themes of private governance, public–private partnerships, non-state market-based governance, and the like.