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SPECIAL ISSUE

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LIMITS Special Issue on Durban Platform scenarios

Implementing climate policies in the major economies: an assessment of Durban Action platform architectures

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Motivation and Objectives

Against the little progress in international climate policymaking, the Durban Platform for Enhanced Action has opened up the possibility for formulating new climate policy frameworks. The Durban process emphasises the role of the major economies in contrast to the traditional divide between developing and developed countries. It calls for a new climate treaty to be agreed upon in 2015 and enter into force as early as 2020. However, aligning the incentives of different regions in pursuing climate policies remains a challenge and requires new thinking about the global and regional implications of innovative architectures.

This special issue aims at addressing these fundamental questions by focusing on the impacts of implementing energy and low carbon policies with specific reference to the major economies. We assess the feasibility and impacts of a set of coordinates policies which assume different levels of regional commitment in intermediate and long term energy and climate objectives. Six state of art integrated assessment models are used to explore the consequences of Durban platform scenarios for achieving 2C. The climate outcome of all scenarios is harmonized across models (for the first time in multi model ensamble) using the probabilistic version of the MAGICC6 climate model.

The results of the IAMs provide new insights on the feasibility of achieving 2C targets, in terms of emission pathways, technological transition and economic costs. Novel aspects such as the quantification of the investments needs and the impacts of climate policies on energy security represent original contributions to the literature.

This collection of papers provides a fundamental contribution to the undergoing IPCC 5th a.r. WGIII, where all the guest editors (as well 2 papers authors) appear as lead authors.

	Title	Authors
1	What does the 2°C target imply for a global climate agreement in 2020? The LIMITS study on Durban Platform action scenarios	Kriegler, Tavoni, Aboumahboub, Luderer, Calvin, De Maere, Krey, Riahi, Rosler, Schaeffer, van Vuuren
2	The distribution of the major economies' effort in the Durban platform scenarios	Tavoni, Kriegler, Aboumahboub, Calvin, De Meaere, Kober, Jewell, Lucas, Luderer, McCollum, Marangoni, Riahi and van Vuuren
3	Energy investments under climate policy: a comparison of global models	McCollum, Nagai, Riahi, Marangoni, Calvin, Pietzcker, van Vliet, van der Zwaan
4	Energy security of China, India, the EU and the US under long-term scenarios: Results from six IAMs	Jewell, Cherp, Vinichenko, Bauer, Kober, McCollum, van Vuuren, van der Zwaan
5	A multi-model analysis of post-2020 mitigation efforts of five major economies	van Sluisveld, Gernaat, Ashina, Calvin, Garg, Isaac, Lucas, Mouratiadou, Otto, Rao, Shukla, van Vliet, van Vuuren
6	A Cross-model Comparison of Global Long-term Technology Diffusion under a 2˚C Climate Change Control Target	van der Zwaan, Rösler, Kober, Aboumahboub, Calvin, Gernaat, Marangoni, McCollum
7	A multi-model analysis of the regional and sectoral roles of bioenergy in near-term and long-term carbon mitigation	Calvin, Wise, Klein , McCollum, Tavoni, van der Zwaan, van Vuuren
8	Regional Burden Sharing Regimes for reaching a global long-term 2˚C Climate Change Control Target	Kober, van der Zwaan, Rösler
9	On the regional distribution of climate mitigation costs: the impact of delayed cooperative action	Aboumahboub, Luderer, Kriegler, Leimbach, Bauer, Pehl, Baumstark
10	The clean energy R&D gap to 2C	Marangoni, Tavoni
11	Climate Policy in Practice: A Typology of Obstacles and Implications for Integrated Assessment Modeling	Staub-Kaminski, Zimmer, Jakob, Marschinski
12	A macroeconomic perspective on climate change mitigation: Meeting the financing challenge	Bowen, Campiglio, Tavoni