



**Proposal
of a Research Project**

**„Re-thinking the Efficacy of International Climate
Agreements Post COP15”**

RECAP15

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1. Topic and Problem Statement

The Copenhagen negotiations of the 15th Conference of the Parties (COP15) have failed. And even in the sequel of Cancun's COP16 there was no significant breakthrough. Although many countries continued to seek for a comprehensive agreement Cancun's deal leaves open the question of whether any of its measures, including emission cuts, will be legally binding. Again, a continuation and deepening of the top-down Kyoto framework was rejected. Rather the principles of national sovereignty and voluntary assent were reinforced.

As the top-down attempt was not successful, there seems to remain no other way than to pursue a bottom-up approach in international climate politics – at least in the short run up to 2020. Partial cooperation is the most likely outcome of such bottom-up negotiations. Climate politics after COP16, therefore, will look fragmented, both in the scope of coverage as well as in the structure of instruments applied in different countries and in different sectors. Therefore, it has become quite unlikely that a global peak of greenhouse gas emissions will be attained by 2020. A 'Peak & Trade' policy (Wicke et al. 2010), which has frequently been advocated for as a first-best solution from an economic viewpoint, seems unachievable because it is openly rejected by important players such as the U.S. and Australia as well as important emerging economies such as India, China and Brazil. Scenarios of climate change beyond the 2°C-threshold (in 2100) are becoming more realistic, making a coordinated approach towards adaptation nationally and internationally even more important. The adverse effects of carbon leakage and, as a response, unilateral interventionist policies into world trade are also looming at the horizon. Linking issues of climate change mitigation with issues of free trade, energy security, and financial and/or technological transfers are important strategies to overcome the current deadlock in international climate negotiations.

This disappointing outcome of international climate negotiations has been expected by prominent economists (e.g. Barrett 2003, Victor 2001), based on a rational expectations theory of international bargaining and on a rich set of case studies of (failed) international environmental agreements (Barrett 2005). However, this therefore well-founded pessimism with respect to the success of global cooperation has been largely ignored by international policy makers, including the Stern Review (2006, Chap. 21, 451-453; only three pages devoted to economic approaches) – one reason being that constructive policy proposals to re-structure international policy to achieve greater efficacy of negotiations are usually made purely ad hoc and are not systematically reflected against the background of economic theory and international legal reasoning. Rather than advancing and re-shaping international climate politics, economic critique of

climate policy was sometimes even misperceived as some kind of climate sceptics'-thinking trying to deny the necessity of serious efforts for greenhouse gas abatement. In contrast, our approach of re-thinking climate negotiations after Copenhagen and, more recently, after Cancun aims at a rigorous analysis of architectures of Post-Kyoto (sub-global alliances, fragmented, multi-layer politics, etc.) within economic theory and international legal reasoning. In this way we want to arrive at recommendations and concrete institutional suggestions how to make international climate policy more effective and efficient within this 2nd- and nth-best framework based on sound economic intuition.

This requires a joint multi-year effort within a network of young and senior researchers with a strong economic and policy background. It also needs a structural collaboration and exchange among economists and political decision makers, and an early-on training of economic thinking of young researchers for policy advice in research institutes which are deeply rooted in these practices such as UFZ (Helmholtz Centre for Environmental Research, Leipzig) and CSC (Climate Service Centre, Hamburg).

2. Research Objectives

The overarching research objectives of this proposal are:

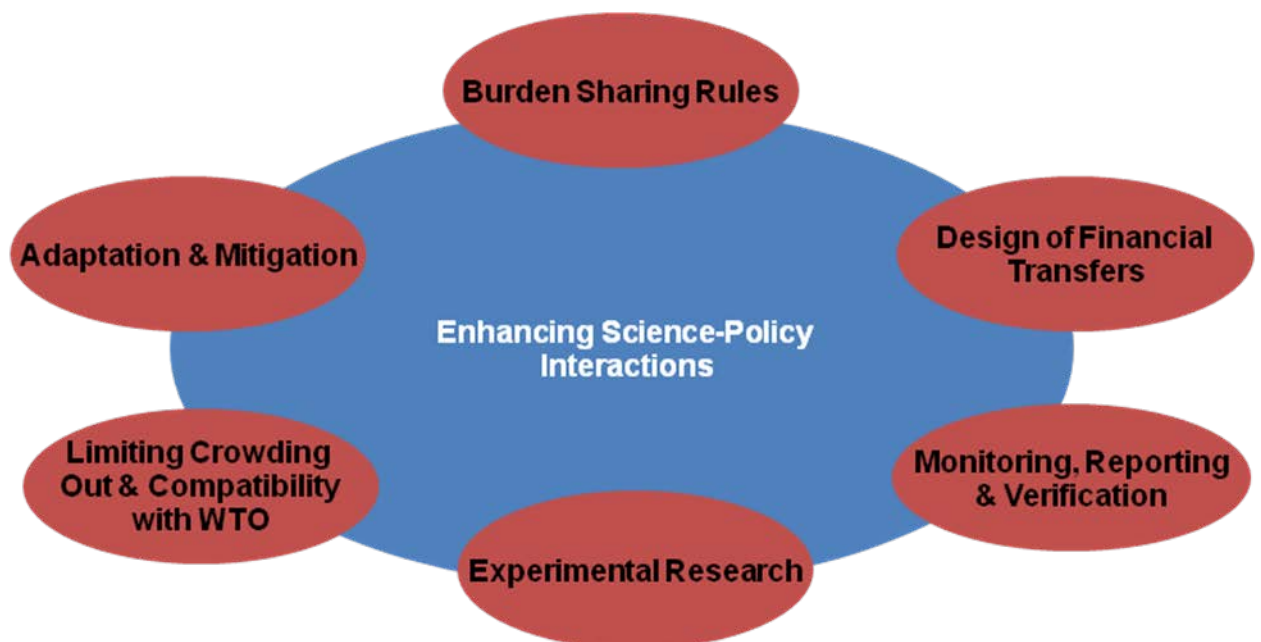
- to systemically put economic theories of public-good provision, mechanism design and fiscal federalism to 'Post-Kyoto' architectures of international climate politics;
- to reflect 'Post-Kyoto' architectures against existing stable rules of international law, in particular world trade law;
- to generate policy relevant knowledge;
- to strengthen the policy-orientation of young climate economists.

2.1 Focus of Subprojects

Our specific research objectives can be broken down into seven different 'work packages' (WPs). Each of them focuses on a facet of the future bottom-up architecture, which itself can be decomposed into different research areas. A first is devoted to the negotiation process and proposals for a '**burden sharing**' using '**financial transfers**' as incentive mechanisms to improve the level of outcome and the efficacy of a joint climate policy. Integrated strategies of '**adaptation and mitigation**' funding will be developed to increase the level of adaptive capacities while avoiding disincentives of 'moral hazard' in both 'self-protection' and 'self-insurance' (Ehrlich and Becker 1972).

As, in the near future, we do not expect a broad-based international agreement where almost all countries sign in to avoid or overcome the consequences of climate change all fragmented measures suffer from a non-cooperative policy of at least some major industrialized and/or emerging countries. Thus, a second area of our proposal focuses on accompanying measures which aim at **'limiting crowding out'** such that the positive initiatives of sub-global alliances are not completely offset by a relaxed climate policy outside. Furthermore, as the incentive to defect from multilateral or even unilateral liabilities is overly strong, **'monitoring, reporting and verification'** becomes a necessary instrument for political credibility in a network of fragmented regional agreements. New methods of enforcement need to be developed to reflect the lacking ability or willingness of some to be 'monitored' and, consequently, a fragmented observation network. Our analysis in these parts will be complemented by an **'experimental verification'** of policy behaviour in international climate negotiations.

All work packages are to support the central objective of this project which is to combine all policy relevant economic knowledge such that climate policy makers, observer organisations and negotiators, are helped to make better, more coherent and more effective policy choices. This will be achieved by means of **'enhancing science-policy interactions'**.



As the previous figure depicts, the 'work packages' of RECAP15 are closely interconnected and linked to each other. This idea of a 'research network' and how it connects to policy makers will be explained in more detail in section 4 of this proposal.

2.2 Contribution to BMBF Research Agenda

- The structural target of the BMBF programme 'Economics of Climate Change' is to *safeguard and enhance long-term economic competences in climate research in Germany*. This project contributes to this target by establishing a network of junior and senior researchers for tracking international climate politics. The lasting character of this network is supported by the joint short and medium-term appointment of seniors as professor or guest professors at the EUV ('center of research') and juniors as visiting scholars in institutionalised environmental research at the UFZ and the CSC.
- The project contributes to the *international visibility of German economic research*. The planned workshops will bring together leading international scientists in the field of 'Economics of Climate Negotiations'. The topic of sub-global alliances, market and policy fragmentation, and the inclusion of advanced methods of behavioural economic research into the theory of international negotiations will strengthen the profile of German economic research in this field of climate economics.
- The project tracks up-to-date political developments of national and international climate negotiations. Ph.D. students are encouraged - as part of their every day practices, and specifically during scholarly visits at UFZ or CSC - to provide comments and recommendations for policy makers, prepare policy papers and use other means of interaction between science and policy (e.g. media comments). It thereby *strengthens the policy-orientation of climate economics and contributes policy-relevant results to feed decision-making processes in politics, businesses and the general society* based on sound economic intuition.

2.3 Expected Results and Potential Application

The overarching goal of this project is the formation of a thematic group/network of economic research on international climate politics. As such, it is mainly geared to produce scientific outputs. Main outputs will be journal papers, Ph. D. theses and a state-of-the-art curriculum for international environmental economics, reflecting current developments in economic theory and climate politics. A distinguishing feature of this network of research is its intended policy relevance. Important means of disseminating knowledge in this respect are science-policy workshops, policy briefs, other media inputs, and a continued exchange with stakeholder groups, NGOs such as Germanwatch, politicians (e.g. from BMU) and with national and international policy think-tanks (e.g. SWP).

The outcome of our project is to support activities within our partner network in authoring and reviewing IPCC reports (e.g. on climate policy and international trade in WG III, see Lol of Michael Rauscher). Presentations of Ph.D. works will be encouraged in disciplinary* as well as interdisciplinary** forums such as the 'Nachwuchsworkshop' of the German Association of Environmental and Resource Economists (AURÖ*), or the Ph.D. workshops of the Helmholtz-Association's Regional Climate Research Programme (REKLIM**).

3 Project Organization and Cooperation

The project is led by a consortium consisting of researchers from

- European University Viadrina in Frankfurt/Oder (EUV) (Professors Becker, Bole, Heintschel von Heinegg, Peters – project coordinator, Schmid and Zimmermann),
- University of Regensburg (Professor Buchholz),
- Helmholtz-Center for Environmental Research (UFZ) in Leipzig in conjunction with the Climate Service Center Germany (CSC), Hamburg (Professor Schwarze).

Additional cooperating partners are:

- Richard Cornes, Australian National University
- Susanne Droege, Stiftung für Wissenschaft und Politik, Berlin
- Jürgen Hacker, Bundesverband Emissionshandel und Klimaschutz
- Alexander Haupt, University of Plymouth, UK
- Jack Janes, AICGS/John-Hopkins University, Washington, U.S.
- Jason Johnston, Virginia Law School, Charlottesville, U.S.
- Michael Rauscher, University of Rostock and IPCC
- Dirk Rübelke, Basque Centre for Climate Change, Bilbao/ES
- Franzjosef Schafhausen, BMU
- Manfred Treber, Germanwatch

Frankfurt (Oder), 2011