

# **International Negotiations Related to Global Environmental Change**

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**Summary of Presentation**

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Regulating the human driving forces of global environmental change is a relatively new challenge to international governance. Despite the relative success of industrialized nations in coping with limited environmental issues, it remains unclear to which extent humankind is able to respond to the geographically and sectorally encompassing challenge of the potentially anthropogenically induced climate change. In the following, I will briefly summarize the international response so far, summarize the theoretical analysis from the perspective of the discipline of international studies, and highlight the challenges for theory building and policy.

First, the UN Framework Convention on Climate Change (FCCC), agreed upon in 1992 at the UN Conference on Environment and Development at Rio de Janeiro, constitutes the major achievement of international research efforts (in conjunction with the Intergovernmental Panel on Climate Change and others) and subsequent international negotiations to regulate climate change. Its major obligation asks the most industrialized countries to freeze their carbon dioxide emissions during 1990-2000, and current negotiations (based on the so-called "Berlin mandate") pursue potential emissions reductions for this set of countries starting with the next millennium. Until now, it remains unclear if humankind will be able to successfully avoid the potentially grave implications of climate induced damages.

Second, various schools of thought within international studies have attended to the challenge posed by global (and regional) climate change. While more traditional approaches highlight the role of governments or international institutions, newer strands are exploring the role of domestic actors, national and international non-governmental institutions, and the role of interregional and intergenerational justice (equity) in shaping internationally coordinated responses to global climate change. Formal models, such as those building on game theoretical methods, are able to provide predictions based on equilibrium analysis, however permitting longer time horizons and various rounds of negotiations, they are unable to provide guidance so as to choose between multiple (equilibrium) solutions. From a theoretical perspective, many theories are able to explain facets of the observed evidence rather well, however, no theoretical approach is able to claim superior or comprehensive explanatory power.

Third, several open questions are or will be attracting the particular interest of students of international studies in addressing global climate change. Three major aspects will be highlighted below, including the role of the domestic reward structure for protecting an international common, the role of knowledge in guiding policy, and how to overcome coalitions which may block advances by other countries to conclude more stringent international environmental agreements.

Domestic political systems may have to decide on the policy mix on preventing or lessening the causes of global and regional climate change and its effects. However, such a policy must be long-term given the residence time of pollutants and the slow response of ecosystems to a more benign pollutant emissions. This resembles the

problem of builders of domes, such as St. John the Divine (New York/USA; under construction), Antoni Gaudi's Sagrada Familia (Barcelona/Spain; under construction), and the Cologne Dome (Germany, completed). Building a dome normally consumes several generations of architects, and this should also be the case for reducing global climate change impacts: Domestic political systems, with a succession of political leaders (architects) would have to embark on a long-term policy in view of electoral control - without being able to let present generations feel the rewards of their potential sacrifices undertaken now. Thus, long-term visions are needed, and it is often hoped that the foundations laid earlier on remain compatible with future policy changes (or the fashions in architecture in the case of constructing domes).

Some strands of theory highlight the role of epistemic communities (i.e., networks of experts with professional competence who command policy-relevant knowledge) and claim that they may strongly influence political outcomes internationally if these epistemic communities have arrived at a scientific consensus and are able to have access to political decision-makers. While such an approach may appear reflecting common sense (or be close to tautological), it may only be partially valid on theoretical grounds. The argument appears to particularly fit problems where scientific consensus and societal importance are high, but abatement costs are low. Epistemic community hypotheses appear to be difficult to sustain in cases of high abatement costs, and they become quite implausible for regulating major problems in case societal importance is low - which many environmental problems regrettably are. Thus, we should expect well-articulated scientific consensus to lead to swift response only under societally and economically benign conditions - which appears not to be the case for global climate change in the late 1990s.

Even in the presence of strong scientific consensus, negotiations among countries may lead to deadlocks, in particular if the institutional rules proscribe unanimity or close to universal agreement (as presently under the rules of the FCCC). This gives dedicated opponents of an international environmental agreement strong leverage in avoiding coordinated responses within the present institutional setting. Several ways may be found to overcome this, including settling for agreements short of international treaties, the use of incremental approaches (starting with baseline agreements or subregime formation among a set of like-minded countries - and hoping for an upgrading procedure to add more stringent regulations or to add more members over time), only cautious linkage among otherwise unconnected issues, and differentiated obligations for countries (as presently represented in the FCCC).

Overall, regulating an international common, such as the global climate system with its expected diverging regional impacts, is both a theoretical and practical challenge. Building consensus about the causes of the problem may just reflect the comparatively easy beginning of arriving at differentiated, yet forceful, responses which allow future generations to reflect favorably on the decisions of past generations.

## Literature

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