

《ENGLISH SUMMARY》

The Role of Scientific Knowledge and Scientists in Climate Policy Change Learning: Building Analytical Framework and Hypotheses based on a Theoretical and Empirical Literature Survey

Rie Watanabe

Why do major GHG emitters differ in climate policy changes even though climate change is one of the greatest challenges common to all countries? Numerous articles and books have sought to identify the factors explaining the difference, including institutions, interests, and ideas/beliefs. One of the underexplored factors in existing empirical literature is the role of scientific knowledge and scientists in climate policymaking, although this factor is closely related to ideas/beliefs held by actors and the general public. A comparison of the role of scientific knowledge and scientists also provides insights for further developing theories of the policy process. In theoretical models explaining policy changes, scientific knowledge is considered a stimulus factor that enhances learning among actor groups competing with each other to further their interests and beliefs (cross-coalition learning). However, models have not explored what kind of scientists and scientific knowledge induce what types of policy learning and policy changes. In this article, I develop an analytical framework and hypotheses to compare climate policy changes in major countries, with a focus on this underexplored factor in both empirical and theoretical studies. I do this by integrating results of Science, Technology, and Society (STS) studies and International Relations studies into policy process theories. First, based on Pielke's study, I argue for the necessity to classify scientists in two groups: scientists who have knowledge but in fact work as actors ("issue advocates" or "stealth advocacy" in Pielke's terminology), and scientists who provide knowledge for enhancing cross-coalition learning ("honest brokers," "pure scientists," or "science arbiters"). Next, I propose the criteria for distinguishing between these two groups of scientists. I also develop hypotheses concerning the conditions necessary to enhance cross-coalition learning, namely the difference between natural-scientific and social-economic knowledge in learning, the bandwagon effect in terms of reaching consensus among scientists concerning natural-scientific "knowledge with uncertainty" and the impact of this phenomenon on cross-coalition learning; the result of this is pressure on scientists to overstate the consensus. I also develop hypotheses on strategic framing efforts on the side of politics when scientific uncertainty is high, and the importance of establishing forums with authority and reliable scientists. To investigate

these hypotheses, which explain the difference in climate policy changes in major GHG emitters, and to further develop theories of policy process, it is necessary to undertake not only document surveys but also interviews of the relevant actors, including scientists.

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Is It Possible to Democratize Global Governance?

Koichi Sugiura

In this century, literature on accountability or democratic legitimacy of global governance has grown with the institutionalization and increase in power of global governance. The existing model of global governance needs to change to accommodate the emergence of powerful countries such as China. It is important to rethink global governance so that it reflects the will of the entire international society; in other words, we need democratic global governance.

However, in global governance, there is limited consensus over issues, such as sovereignty or the necessary democratic institutions, as compared to national democracy. As a result, the vision of the democratization of global governance seems “undemocratic” from this perspective. In addition, what is the democratization of institutions at the supranational level, including global governance, might be less clear than at the national level.

Democracy in global governance reflects and involves the changes in the existing world order. This has led to fierce debates on democratic practices at the national level. This article examines the vision behind the democratization of global governance and related issues by connecting the transformation in the global power structure with democracy issues at the national level.

First, this article classifies the objectives of democratizing global governance and examines the debates on democracy at the transnational level. We present five types of democratic institutions: inter-national democracy, supranational representative democracy, transnational direct democracy, output-oriented democracy, and transnational deliberative democracy. Different visions of world order hold different objectives concerning democratizing global governance and the national political regime. This article classifies the visions of world order into five ideal models: *Westphalia*, *World*

federation, Liberal community of democracies, Cosmopolitan, and Radical models. By using these models, we can understand the global world order different countries are trying to realize.

Additionally, this article attempts to understand the direction of the democratization of global governance by examining the transformation of the American-led existing liberal world order. Lastly, this article answers the title question on the possibility of democratizing global governance. The objective of democratization is increasingly unclear and controversial due to the instability of the liberal world order. It is important to assess the world order that will be established before answering the question on the democratization of global governance.

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Can Democratic System Sustain Global Environmental Governance? : Multi-Level Governance, Long-Term Policy and Democracy

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In this paper, I examine how democratic political system at multi-levels, especially national level, affects global environmental governance.

First of all, I point out the two peculiar features of global environmental governance: "fragmented" multi-level governance and time horizon for long-term goals. Global environmental risks such as climate change are not limited to territorial boundary, therefore, global environmental governance requires that not only governmental regulations but also various and flexible commitment such private-public partnership at global, national and local levels. Furthermore, as discourses like "sustainable development" or "precautionary principle" imply, global environmental governance based on "future generation", namely, longer time scale to address environmental risks such as climate change gradually emerging for next 50 years or more.

Secondly, I consider the relationship between democratic system and environment. When we consider political commitment to international environmental accords, democratic countries are likely to exhibit cooperative action. However, if we pay attention to the time horizon global environmental governance presumed, democratic governments often prioritize short-term economic interest rather than pursue long-term

sustainable environmental policy contrary to the objectives of global environmental governance, some emerging longer-term governance models like “adaptive governance” or “transition management” might be alternative to the present environmental governance though.

Thirdly, I examine dynamic of democratic system affecting global environmental governance, drawing on the cases India had responded to international environmental issues: import of a hazardous retired carrier “Le Clemenceau” from France and carbon-offset projects at Delhi. The former case was that liberal democratic process, especially judiciary, in India played an active role in preventing diffusion of environmental risks, provoking resonance with the judgement issued by the State Council of France. This is an example that a collaborative dynamic among democratic regimes strengthens a global environmental norm. In the latter case, Indian government introduced trash-to-electricity projects to show international political commitment at the expense of livelihood of “present generation” waste pickers. This case implies how difficult democracy creates long term environmental policy with living up to expectation of international society.

Throughout this paper, I would like to sort out the points of research agendas for further examination on the relationship between democracy and global environmental governance.

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