

Assessing International Cooperation on Climate Change: A Neoliberal Analysis of the Effectiveness of Formal International Environmental Institutions

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Abstract

This article examines the efficacy of formal international institutions in fostering international cooperation on climate change. It criticizes realist assertions that institutions are of marginal importance in the Hobbesian self-help world of international politics, and maintains that existing institutional frameworks have facilitated progress on climate change in numerous ways. Despite this progress, however, the article concludes that it has been suboptimal in terms of what is actually needed to prevent dangerous anthropogenic warming of the earth's climate, and that further empirical study of these formal institutions is necessary in order to improve climate outcomes through rational institutional design.

Introduction

Human-induced climate change is one of the greatest and most intractable problems facing humanity in the twenty-first century. Not only is the problem itself incredibly complex, but it also involves a broad diffusion of interests across myriad sovereign states in a political system that has no absolute supranational authority. According to realist logic, the anarchic, self-help nature of international politics precludes cooperation on this sort of problem. Yet some positive progress on this issue has been made. The establishment of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 is a preeminent example of this, and it raises some fundamental questions about the nature of international cooperation. Indeed, why do nations cooperate at all? Why is the degree of such cooperation often suboptimal? And, perhaps most importantly for scholars and policymakers concerned with institutional design, can cooperative outcomes be improved? In addressing these questions, this essay adopts a neoliberal IR framework to analyze how effective formal international institutions have been in advancing cooperation on climate change. In so doing, it also examines how well-known barriers to cooperation, as well as the complexity and novelty of the problem itself, have hindered the adoption of an adequate solution in this case. Despite these challenges, the essay argues that neoliberal institutional analysis can help improve climate outcomes by providing the conceptual foundation to rationally redesign and restructure key international organizations.

To conduct this analysis, I first briefly examine neoliberalism's key assumptions and expectations, and explain how they differ from realism in their view of international institutions. Next, I discuss the climate-change issue, focusing on why this problem is a particularly interesting case for neoliberal analysis. Following this, I analyze current formal institutional arrangements on climate change by identifying common goals for cooperation, outlining the emergence and contemporary state of several key international organizations, and assessing how effective they have been at advancing international cooperation. Finally, the analysis concludes

by offering some ways in which current institutional arrangements could be altered to improve collective outcomes through cooperation.

Neoliberalism, Neorealism and International Institutions

Neoliberalism, due to its grounding in liberal-institutional IR theory, has a generally positive view of human nature. It shares liberal assumptions regarding humanity's potential for cumulative progress, and it contends that the power of human reason can be harnessed to produce more desirable collective outcomes through interaction and cooperation (Sterling-Folker, 2010: 117-118). Along with these assumptions, neoliberalism is also influenced by the liberal belief that international institutions provide the processes and arenas for state interaction. Consequently, neoliberal analysis is fundamentally concerned with investigating the formal and informal manifestations of these institutions to determine their overall effectiveness in obtaining cooperative results (Sterling-Folker, 2010: 123). Such formal manifestations include various international organizations such as the United Nations (UN) and the World Trade Organization (WTO), established by states to pursue common interests (Sterling-Folker, 2010: 117). Informal manifestations fall under the concept of 'international regimes,' which include "rules, norms, principles, and procedures that focus expectations regarding international behaviour" (Martin and Simmons, 1998: 737). Thus, liberal institutionalism is at the core of neoliberal analysis.

These liberal influences notwithstanding, however, neoliberalism also has much in common with the neorealist tradition within IR theory. For instance, both approaches have a state-centric conception of international politics and share rationalist assumptions of states as unitary actors with egoistic, utility-maximizing tendencies (Sterling-Folker, 2010: 118-119). Additionally, both approaches conceptualize international politics as anarchic and acknowledge that this makes achieving cooperation difficult. The key difference, though, is that realists see these challenges as insurmountable whereas neoliberals believe they can be overcome (Sterling-Folker, 2010: 121, 123). Neoliberals fundamentally disagree with realist assertions that institutions are largely irrelevant to international politics (Martin and Simmons, 1998: 730). Instead, they believe that increased interdependence between states across numerous policy areas since the end of the Second World War has provided many opportunities for greater cooperation through new institutional arrangements, even if this has also engendered some conflict (Keohane, 2005: 5-6). Accordingly, they recognize the difficulties posed by so-called "transaction costs", such as a lack of information about specific problems and other states' intentions (Sterling-Folker, 2010: 121-122). Furthermore, they understand that collective action problems, such as the fear of free-riding or defection in multilateral agreements can make it difficult to reach mutual agreements (Martin and Simmons, 1998: 738). Ultimately, though, according to Robert Keohane (2005: 12-13), neoliberals believe "institutions... can reduce uncertainty and limit asymmetries in information," which facilitates cooperation by attenuating these difficulties.

In short, neoliberals see increasing interdependence through institutionalized interactions as a promising development for international cooperation while realists see it as a marginal one at best. Although both approaches share foundational assumptions such as rational state-centrism and the difficulty of anarchic cooperation, neoliberalism rejects realism's pessimistic conclusions as well as its marginalization of institutions. Therefore, neoliberalism attempts to get "beyond realism" (Keohane, 2005: 16) to analyze how institutions shape international relations and how they can be modified to induce greater levels of cooperation.

Despite its current pervasiveness, climate change is a relatively new issue. Although broad environmental concerns began appearing in policy and academic IR literature in the early 1970s, climate change did not truly emerge as a salient political issue until the late 1980s (Keohane et al., 1993: 6). This novelty has several implications for neoliberal analysis. First, this period coincides with a decline in American hegemonic influence and the concomitant erosion of many international regimes (Keohane, 2005: 9). Accordingly, the primary catalysts of action on this issue should not have been self-interested US foreign policy initiatives, but rather, a discovery of common interests and increasing international interdependence. Additionally, international environmental institutions are relatively new as well, offering an opportunity for neoliberals to draw upon past lessons to engage in a more ‘rational design’ of institutions (Sterling-Folker, 2010: 123). Consequently, since climate change is such a novel issue, it can be used to test neorealist assertions that international cooperation will breakdown in a post-hegemonic world. At the same time, it offers a practical application of neoliberal claims regarding the importance of institutional design.

In addition to its novelty, climate change is also inherently complex. Like many international environmental issues, it encompasses various social, economic and ecological factors as well as the interplay between competing national interests. Moreover, like many other long-term policy problems, efforts to address climate change simultaneously grapple with two major challenges: developing effective long-term strategies under deep uncertainty, and implementing agreed-upon strategies consistently over time (Hovi et al., 2009: 20). Despite resemblances with past environmental issues, however, climate change contains some unique characteristics that make it particularly intractable. Specifically, according to several scholars (Hovi et al., 2009: 20), “[climate change] is... about protecting a pure collective good, this good is truly global in scope, and time-lags between cause and effect are very long in some instances.” These characteristics, when considered in conjunction with the challenges of long-term implementation in general, reveal various ‘commitment problems’ (Hovi et al., 2009: 21). The most challenging of these is perhaps the ‘time inconsistency’ problem, which suggests that political actors will have difficulty making short-term sacrifices to achieve long-term gains (Martin and Simmons, 1998: 748). This problem is accentuated in the climate-change issue as its future effects are difficult to accurately predict and the short-term economic costs of action are substantial. Although these difficulties may make this case seem unwieldy, they also provide an excellent opportunity to assess the usefulness of neoliberal ideas in addressing complex problems.

Interests and Formal Institutions in the Climate Change Regime

The first step in any analysis of international cooperation is to identify common interests among actors. In the case of climate change this seems rather straightforward, as every nation on earth presumably has an interest in averting the damaging effects of a destabilized climate. Even here, though, some qualifications are in order, as not all nations face the same risks. David Victor (2006: 93-94) points out several reasons why nations’ demand for cooperation on this issue is non-uniform. For one, a nation’s financial and technological capacity to adapt to the effects of climate change can affect its interest in addressing the problem. Moreover, some nations, like Canada and Russia for example, might actually benefit from a slightly warmer climate through increased agricultural yields and greater access to arctic resources. These interest disparities

notwithstanding, though, all nations share an interest in avoiding abrupt or ‘catastrophic’ climate change, defined in terms of drastic sea level rise, dramatic temperature increases, or various other destabilizing climatic events. Thus, a common interest in avoiding this worst case scenario forms a baseline assumption for cooperation, but there is still much room for fluctuation among individual interests. The inherent uncertainty of predicting climate change’s future effects makes determining a common interest even more difficult.

In spite of these challenges, an international climate change regime has emerged with numerous formal institutions and UN-affiliated intergovernmental organizations (IGOs) at its core. Not all of these institutions have an exclusively environmental mandate, but they have become crucial to the regime nonetheless.

The first and arguably most fundamental of these institutions is the UN General Assembly. Since the end of the Second World War, this institution has been the primary international arena for raising, discussing and debating a wide variety of issues (Soroos, 2011: 31). In addition to being a venue for debate on climate change, the General Assembly also sponsors major international conferences on environmental issues, brokers negotiations on international treaty law and delegates various tasks and responsibilities to other institutions (Soroos, 2011: 31-32). The General Assembly has played a pivotal role in focusing attention on this issue and facilitating an international response.

An important IGO vis-à-vis climate change is the United Nations Environmental Programme (UNEP). Established in 1972, the UNEP was designed to be the “institutional hub” for the UN’s numerous environmental initiatives (Soroos, 2011: 33). Accordingly, it is not designed to actually develop policy, but rather, to coordinate negotiation and implementation on environmental issues by providing expertise and knowledge (Andresen and Rosendal, 2009: 135). As the UN’s formal primary coordinative agency on environmental issues, the UNEP plays a significant role in framing and advancing the climate-change issue.

Another important organization is the Intergovernmental Panel on Climate Change (IPCC). This IGO, jointly established by the UNEP and the World Meteorological Organization in 1988, has become the authoritative source of information regarding the scientific understanding of climate change. While it does not conduct its own research per se, it does review and assess current work in climate science to assemble unbiased scientific knowledge on the state of climate change (Soroos, 2011: 35-36). Through its production of periodic assessment reports, the IPCC has done much to enhance an international understanding of this issue and how it is likely to affect the world in the future.

Finally, two international financial institutions, the World Bank and the Global Environmental Facility (GEF), have helped finance various climate change initiatives. The World Bank is somewhat controversial in this regard, as it has tended to support large-scale fossil fuel-based infrastructure projects in developing nations, which clearly conflicts with global efforts to reduce greenhouse gas emissions (Soroos, 2011: 38-39). In recent decades, however, the Bank has sought to ‘green’ its practices by implementing a strategy to support more sustainable projects (Soroos, 2011: 39). The GEF, meanwhile, has gone from being wholly controlled by the World Bank to a largely independent source of funding for multilateral environmental agreements (MEAs) (Andresen and Hey, 2005: 213). Thus, while the World Bank has played a mostly indirect role in financing climate change through reforming its internal processes, the GEF has emerged as the primary funding mechanism for MEAs designed to address the issue, such as the UNFCCC and its various accords and protocols (Soroos, 2011: 43).

This diverse array of formal international institutions has influenced global action on climate change in numerous ways. Through their roles of promoting, debating, coordinating and

financing efforts to address climate change, they have been instrumental in fostering international cooperation by reducing uncertainties and catalysing repeated discussion of the issue. Recognizing these influences, the next task of a neoliberal analysis is to determine how effective these institutional arrangements have been in realizing actual progress on the issue, and investigating ways in which they could be improved by design.

Assessing the Effectiveness of International Climate Change Institutions

One striking characteristic of the institutional arrangements facing climate change is the lack of a specialized organization to deal with environmental issues. The UNEP comes closest to fulfilling this role, but since it is a programme and not an organization, it lacks the authority of other IGOs such as the World Trade Organization or the International Monetary Fund (Andresen and Rosendal, 2009: 133). As stated above, the UNEP is primarily a coordinative organization. As such, it facilitates MEA negotiations and implementation, but it does not actively participate in them or enforce agreements. Additionally, the UNEP is relatively small in terms of funding and staff, and it is located in Nairobi, Kenya – far from other UN centres of activity in New York, Geneva and Vienna (Soroos, 2011: 33). While the UNEP plays an important role in global environmental initiatives, its ability to effectively address climate change is limited by its budgetary and staffing constraints, its geographical location and its inability to take a leading role in MEA negotiation and enforcement. Addressing the weaknesses of the current decentralized arrangement of formal environmental IGOs could help reduce the risks of bargaining and defection, two well-known barriers to international cooperation (Sterling-Folker, 2010: 124-125).

Related to this decentralization, linkages between climate change and other social and economic issues can impact the effectiveness of formal institutions in fostering international cooperation. In contrast to the case of European integration, where issue linkages played a largely positive role facilitating cooperation between nations (Sterling-Folker, 2010: 124), such effects have been mixed for climate change. On the one hand, efforts to link environmental protection with economic and social development have engaged numerous IGOs in cross-cutting, comprehensive bargaining processes on this issue. On the other hand, though, it has also occasionally engendered an undesirably competitive relationship between environmentally-focused IGOs, like the UNEP, and development-oriented ones, like the United Nations Development Programme (UNDP) (Andresen and Rosendal, 2009: 142). Ultimately, issue linkage may help raise climate change's profile by associating it with factors more directly aligned with national interests. But considering the UNEP's relative weakness, this could clearly carry negative impacts for institutional efficacy on climate change under the current structure and design.

With these factors in mind, institutional effectiveness can also be judged in terms of the outcomes they produce. According to some scholars (Downs et al., 1996: 384), the depth of cooperation engendered by international institutions can be discerned through hypothetical counterfactual reasoning about how things would have developed in their absence. In other words, has the existence of these institutions caused nations to act differently than they would have acted if they did not exist? Additionally, in the view of several influential scholars (Keohane et al., 1993: 11), there are three necessary conditions for effectively addressing environmental issues: there must be considerable *government concern*, an agreeable *contractual environment* for making and keeping agreements, and *administratively and politically capable* national governments. Judging by depth of cooperation and these "Three Cs," the formal institutions of the climate change regime have effectively advanced the issues on several fronts. According to

Marvin Soroos (2011: 43), these institutions have been instrumental in raising awareness, building informational networks and reforming previous practices. Without such repeated exposure at the international level, it is unlikely that agreements such as the UNFCCC or the legally binding targets of its Kyoto Protocol would have been reached. Hence, the formal institutions facing climate change have been somewhat effective in fostering international cooperation. Nevertheless, this cooperation is clearly insufficient to truly solve the problem for various reasons. By identifying issues such as decentralization, the weakness of particular organizations and conflicting organizational mandates, further neoliberal analyses could suggest ways to improve institutional efficiency through purposive design.

Conclusion

In sum, climate change is an interesting case study for neoliberal analysis due to the timeframe of its emergence and its inherent complexity. It demonstrates the significance of international institutions and offers an opportunity to examine a number of formal organizations that have emerged following a relative decline in US hegemony. In this case, though, a cursory analysis of institutional efficacy seemingly strengthens realist arguments, as cooperation towards an actual solution has been meagre at best. A more thorough analysis, however, reveals that some progress has been made and that formal institutions have had a discernible impact. Uncertainty about the issue itself has decreased due to the IPCC's efforts to review and consolidate current scientific knowledge. Similarly, nations' uncertainty about each other's intentions has been reduced somewhat by continual interactions through the General Assembly and repeated meetings under the UNFCCC. Additionally, the coordinative efforts and expertise of the UNEP has increased nations' capabilities to implement climate change plans. Finally, financial mechanisms needed for implementation have been formalized through institutions like the World Bank and the GEF. Together, these institutions have helped reduce several barriers to cooperation, and as a result, perceptible progress has been made on this complex problem despite a broad diffusion of national interests. While realist tendencies may help explain persistent elements of discord, it cannot account for the cooperation that has already developed from anarchy. Hence, neoliberalism's institutional focus yields explanatory insights beyond those offered by realism's power politics alone.

Evaluating the efficacy of international institutions also allows neoliberal scholars to suggest how outcomes might be improved by redesigning or restructuring key organizations. Several approaches have been suggested along these lines. For example, some propose reducing the total number of parties to a comprehensive climate change agreement, much like the formative stages of the WTO (Victor, 2006: 101). Others have pondered the value of a stronger central environmental institution, such as a World Environmental Organization (Andresen and Rosendal, 2009: 134), while critics of this approach suggest that strengthening the administrative and coordinative capabilities of current institutions would be more practicable and desirable (Soroos, 2011: 44). Finally, there have also been suggestions that the effectiveness of these institutions is inextricably linked to their perceived legitimacy, and therefore, enhancing their transparency and fairness could improve cooperation on climate change (Andresen and Hey, 2005: 222-223). While there is no shortage of these prescriptions, unfortunately, empirical studies of the climate change regime have not explicitly focused on formal international institutions (Andresen and Hey, 2005: 218-219). Further study of the formal centre of this regime could enable a more informed comparison between the options listed above. Addressing this

empirical deficiency could further illuminate how institutional design impacts effectiveness and, ultimately, improve climate outcomes.

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