

Managing Climate Change: The Biggest Challenge to Global Governance Ever¹

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The sky is falling! The sky is falling!

-Chicken Little

Given the nature and magnitude of the challenge, national action alone is insufficient. No nation can address this challenge on its own. No region can insulate itself from these climate changes. That is why we need to confront climate change within a global framework, one that guarantees the highest level of international cooperation.

-Ban Ki Moon

There is a scientific consensus, if not a political one in the United States, that anthropogenic factors based on emissions of greenhouse gases are increasing global temperatures at levels that will cause significant climate change.² Dealing with this problem will make exceptional demands on an emerging international public sector. This paper explores why this is the greatest challenge to global governance ever.

Historically, international organizations have emerged when Nation-states, the building blocks of international political order, have decided that a problem cannot be addressed in an orderly fashion by the actions of States within their own sovereign borders or by the magic of the marketplace run by private enterprises. Usually these problems cross borders, require concerted and agreed action by groups of states (or, in most cases, by all states) and need a competent but neutral public institution to ensure order in solving the problems.

Climate change is a borderless, universal problem that cannot be solved by the action of individual States or by the magic of the marketplace. It requires that States act, but that they do so in a consistent way. Managing it will involve significant regulation and massive financial flows. These, in turn, will require neutral and competent international public institutions if the problem is to be addressed successfully.

¹ Prepared for the University of Delaware Colloquium on Tensions in Global Governance, 16 March 2012.

² Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2007: Synthesis Report, Summary for Policymakers*, 2007, p.2 states "Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice and rising global average sea level."

In my study of the role of international secretariats, *Invisible Governance*³, I used international regime theory to place the role of the international public sector into an analytic context. Management of climate change will be an international regime, agreed by States. In the classic Krasner definition a regime is “a set of explicit or implicit “principles, norms, rules, and decision making procedures around which actor expectations converge in a given issue-area.”⁴ Climate change today is an incomplete regime, in that while the principles (statements of fact), norms (obligations of states) and some rules (how states are expected to implement their obligations) have been agreed in the United Nations Framework Convention on Climate Change, many of the rules and most of the procedures have not been agreed.

Over the next few years, the final rules (next steps taken after the Kyoto Protocol expires) and the procedures in the form of international institutions will be agreed. When they are agreed, a large and complex international structure will be established and will need to be governed.

Functions of the management regime and the structure to perform them

In *Invisible Governance* I also used a functionalist model to describe what the public sector does. Functionalism as a theory derives from anthropology and is concerned with the factors (functions performed) that make a society (or international system) hold together. I posited a number of functions:

- Regime creation (the process of negotiating or modifying an international system)
- Mobilization of information (maintaining a quality level of information)
- Norm enforcement (ensuring that States compliance with treaty obligations is noted)
- Political and humanitarian services (direct services in coordination of problem solutions)
- Economic and social management (international services like finance, development assistance provision)
- Internal management of the international public sector

In the new climate change management regime, all of these functions will have to be performed by existing or new international organizations.

³ Mathiason, John, *Invisible Governance: International Secretariats in Global Politics*, Kumarian, 2007.

⁴ Krasner, Stephen, “Regimes and the Limits of Realism: Regimes as Autonomous Variables,” *International Organization* 32 (No.2), 1982, 497-510.

Regime creation

The negotiation process for the regime has been in terms of the United Nations Framework Convention on Climate Change and there is no reason to expect this to change. The UNFCCC Secretariat has provided the regime creation services and can be expected to continue. Like all convention secretariats, where the secretariat function was not given to an existing organization, the UNFCCC Secretariat is independent of the main UN departments and not included in the UN budget. This function will continue, although it is possible that the secretariat function may be incorporated into an existing organization (e.g. a UNEP created as a specialized agency or as a department in the UN Secretariat). The annual meetings of the Conference of Parties will continue to negotiate changes and maintain a monitoring function. This is a standard function and in and of itself will not be a challenge. The other functions, however, are different.

Mobilization of information

There are two aspects to this function: the process of collecting and disseminating internationally credible information, and disseminating information about what the international public sector does. In climate change, the first is most important and there is an existing institution for the purpose, the Intergovernmental Panel on Climate Change (IPCC).

The IPCC is actually the oldest climate change institution, having been created in 1988 by the World Meteorological Organization and UNEP as a vehicle “to assess on a comprehensive, objective, open and transparent basis the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts and options for adaptation and mitigation.” Its information mobilization function is clear. It has prepared four assessments of the global climate change situation and is working on a fifth.⁵

In regime creation terms, the IPCC has been successful in establishing the principles (statements of fact) that underpin the climate change regime. It has been able to do so because it is an unusual international public organization. It partly represents an epistemic community of scientists concerned with climate change, and it partly represents government positions. Bhandari’s and my analysis suggests that less than half of the scientists involved in the third (2001) and fourth (2007) assessments were employed by governments. The fact that IPCC conclusions require a scientific consensus means that they are credible. The fact that they have to be endorsed by a governmental process means that they err on the side of conservative estimates.

⁵ Much of the information in this section is derived from John Mathiason and Medani Bhandari, “Getting the Facts Right: The Intergovernmental Panel on Climate Change and the new Climate Change Management Regime,” *Journal of International Organizations Studies*, 1 (2011).

The Fifth Assessment, to be issued in 2014 will clearly drive the negotiations in the Conference of Parties of the UNFCCC, but more importantly, the subsequent assessments, issued every five-seven years, will determine whether efforts to contain global warming are working and therefore subsequent negotiations. For this the IPCC will have to be maintained and probably expanded in terms of secretariat support.

Norm enforcement

Once the regime is fully (or mostly) agreed, means will need to be put into place that will verify whether the States party to the UNFCCC are complying with their obligations under the convention. This is norm enforcement. The problem here, as with all international conventions, is the assumption, codified in international law, that sovereign states will comply with their obligations. In other words, norms are supposed to be self-enforcing. Reality over the years has suggested that this is probably not a good assumption. There are differences in interpretation of what the norms (and the rules) mean. This is particularly true in climate change, where a main element in the agreement is that States will reduce their greenhouse gas emissions. Up to now, the only agreement on how to measure this is that States will voluntarily report.

As will be seen, part of the climate change bargain will be that States who contribute most to emissions will compensate those States who do not. This means that reporting on emissions reduction has immediate financial consequences for both emitting countries (reflected in Annex I of the UNFCCC) and non-emitting. The issue in norm enforcement is finding a way to independently verify the accuracy of national reporting.

The first problem is that there is not yet a consensus on how to report emissions. A Task Force of the IPCC is currently working on methodologies for national greenhouse gas inventories, but even when this is agreed, the problem of verification will remain. While few of those undertaking negotiations on climate change have made the analogy, the verification problem in the UNFCCC is not unlike that in the area of nuclear weapons (or chemical weapons for that matter). For nuclear weapons, an international organization, the International Atomic Energy Agency (IAEA) provides, through its Safeguards Department, verification services.

The difference with climate change is that the scope of verification is much wider, but given the existence of standards, it is possible. We can realistically expect that either an existing international organization, or a new one, will be given the task of ensuring verification of commitments. If so, it will be expected to review national reports, undertake training of national data collectors and, if necessary, undertake inspections to verify the accuracy of the emissions data reported.

This will enable an effective running of emissions credit schemes (cap and trade or emissions taxation) and will involve norm enforcement on a scale unprecedented in international relations.

Political and humanitarian services

The international public sector already provides political and humanitarian services, usually now in the context of failed states (internal conflicts) and the humanitarian crises that ensue from either conflict or natural events. Both are connected with climate change and can be expected to increase in number and scope.

Scholars have noted that internal conflicts are related to natural events like droughts and catastrophic flooding, which tax the ability of governments to meet the needs of their people. One of the predictable consequences of climate change will be an increase in droughts in those areas, like central Africa, where the potential for conflict is already high. This will make demands on peacekeeping, which is already stretched for funding and political support.

More importantly, climate change will have two significant causes of humanitarian emergencies: an increase in extreme weather events and a rise in the sea level. Increasingly dealing with humanitarian emergencies in poorer countries has become a responsibility of the international public sector through such agencies at the UN High Commissioner for Refugees, the World Food Programme, UNICEF and the Office for the Coordination of Humanitarian Activities. These can be expected to grow in importance and it will fall to international organizations to ensure that the humanitarian crises are dealt with effectively.

Economic and social management services

By far the largest increase in international public sector management will be in terms of economic and social management services. This is a direct consequence of the essential climate change management bargain. Annex I countries will be expected to pay for adaptation (and mitigation) of greenhouse gas emissions by non-Annex I countries. A variety of institutions to manage the transfers and investments are already being created including the Adaptation Fund and Clean Development Mechanisms developed under the UNFCCC Secretariat, the Global Environmental Facility and the Green Fund that are currently managed by the World Bank. The new REDD+ (The United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries) funding is another example.

Eventually, these will have to be consolidated if clear governance is to be assured. The World Bank, as a manager, is viewed with suspicion by many non-Annex I countries and at some point there will be a need to adjust the institutional structure to make effective governance possible.

The functions will include both investment and regulation, where global institutions will have to regulate carbon credit markets as well as provide financing. The amounts involved will dwarf previous international programs, which some have suggested may reach several trillion dollars a year.

How is this different than earlier regimes?

The climate change management regime will build on previous experiences, but will be significantly different. The scale and importance of the climate change management problem dwarfs even world wars since, if it is not addressed properly, it could lead to the end of life as it has been known for most of human existence. It is a problem that can only be solved by massive behavioral change within a single generation, in terms of production and consumption by individual households. It requires universal responses –no outliers. It involves humanitarian action on a scale infrequently seen. It involves financial resources that, at the international level, have never before been mobilized.

How to govern this regime is something that has not yet been thought through. There are no precedents at the international level for organizing a public sector response on this scale. The examples of regime creation negotiation in the past (and present) are not encouraging. Neither coalitions of the willing (or of one group of countries – like the G-20) nor the standard UN structures based on one-country, one-vote will probably work to govern this complex system.

What will probably be needed is a system that is similar to that of the IPCC, involving both governments and epistemic communities (including civil society organizations and the private sector). We will need comparative research into how different international governance arrangements work to help identify models that are likely to be effective. One example is the Internet Governance Forum that was a response to the question “how can the Internet be regulated if governments cannot be trusted to do so?”⁶

The challenge to scholars is to look at this new phenomenon with new eyes and use theory to influence practice.

⁶ See my book *Internet Governance: the New Frontier of Global Institutions*, Routledge, 2008 or Milton Mueller, *Networks and States: The Global Politics of Internet Governance*, M.I.T. Press, 2010.