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The Climate Regime: Some Achievements, but More Challenges¹

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1. Introduction: Purpose and Scope

The United Nations Framework Convention on Climate Change (UNFCCC) has been the dominant venue for the international efforts to deal with the challenges posed by climate change. As this international regime has existed for twenty years, it is pertinent to evaluate what has been achieved and what the challenges are. How effective has it been in a problem-solving perspective, and how do we explain what has been achieved, or rather—why has progress been so modest? The extent to which emissions are reduced as a result of the regime is the key indicator of its problem-solving effectiveness. First, how do we measure and explain the effectiveness of international environmental institutions; and second, how does this play out in relation to the development of the climate regime?

2. The Effectiveness of Environmental Institutions

The effectiveness of international environmental institutions has been extensively studied over the past two decades.² A consensus has emerged in the research community that effectiveness or the *dependent variable* can be measured in terms of output, outcome, and impact.³ Output is essentially potential effectiveness, as it concerns the rules and regulations emanating from the regime, for example the Kyoto Protocol. We would normally expect stricter rules regarding such factors as ambition, legal commitments and compliance to lead to higher effectiveness. This is most often the case, but we have no guarantee that rules are followed. Therefore we also need the outcome indicator, focusing on actual achievements made on the ground. We need to establish a causal link between the institution in question and behavior by key target groups. For example, the dramatic fall of emissions in the ‘economies in transition’ was not caused by the climate regime, but by economic recession following in the wake of the demise of the Soviet Union. Through careful process tracing, we need to

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¹ This chapter builds on Steinar Andresen, Norichika Kanie and Peter M. Haas, ‘Actor Configurations in the Climate Regime: the States Call the Shots’, in *Improving Global Environmental Governance Best Practices for Architecture and Agency*, edited by Norichika Kanie, Steinar Andresen and Peter M. Haas (London: Routledge, 2014), at 175-95; and Steinar Andresen, ‘Exclusive Approaches to Climate Governance: More Effective than the UNFCCC?’, in *Toward a New Climate Agreement: Conflict, Resolution and Governance*, edited by Todd L. Cherry, Jon Hovi and David M. McEvoy (London and New York: Routledge, 2014), at 155-67.

² Edward L. Miles, Arild Underdal, Steinar Andresen, Jørgen Wettestad, Jon B. Skjærseth, and Elaine M. Carlin, *Environmental Regime Effectiveness: Confronting Theory with Evidence* (Cambridge, MA: MIT Press, 2002); Steinar Andresen, ‘International Regime Effectiveness’, in *The Handbook of Global Climate and Environment Policy*, edited by Robert Falkner (London: Wiley, 2013), at 304-19.

³ Arild Underdal, ‘One Question, Two Answers’, in Miles et al., *supra* note 2.

establish that key target groups reduce emissions as a result of rules and regulations laid down in the climate regime. The impact indicator is the most important one, as it seeks to establish the extent to which the problem has been solved by the regime in question. Has the climate regime been able to stabilize GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interferences with the climate system? Unfortunately, due to the influence of a host of intervening variables, this approach is fraught with methodological challenges and is therefore exceedingly difficult to use. In seeking to measure the achievements of international institutions it has been suggested that less rigorous process-oriented criteria, such as learning, agenda-setting and diffusion could be applied.⁴

As to *explaining* effectiveness, a number of approaches have been suggested.⁵ However, there is agreement that both the institution as such, as well as non-regime attributes like the characteristics of the issue-area, make a difference. We can therefore distinguish between the nature of the issue area and the problem-solving ability of the regime.⁶ Some issues are ‘malign’ due to scientific uncertainty and not the least due to deep-seated political conflict, and are therefore exceedingly difficult to solve. In contrast, much more can usually be achieved when problems are ‘benign,’ with technological fixes at hand and moderate political conflicts. The nature of an issue tends to be rather stable and difficult to manipulate or change. More interesting from an analytical as well as a policy-making perspective is therefore the extent to which the problem-solving ability of the institution makes a difference. The problem-solving ability can be seen as a function of power, leadership and institutional design.⁷ To simplify, if powerful actors are pushers and leaders, chances are higher for an effective regime – and vice versa. In terms of whether strong and creative institutions can make a difference or not, this begs the question of the significance of institutional design. Can the way an institution is designed be of significance for its effectiveness?

3. The UNFCCC Regime: More Efforts Over Time, but Lower Effectiveness?

3.1 The Process of Negotiations: a Snapshot

The process was initially quite dynamic, as the convention came quickly into force and the Kyoto Protocol was adopted in 1997 with innovative flexible mechanisms. However, it took another four years to agree on the Marrakesh Accord, a diluted version of the Protocol.⁸ Since then not much of substance has happened within the framework of the UNFCCC, although efforts by climate diplomats have intensified significantly in terms of meeting frequency. To illustrate, never before had the climate negotiators met so often as they did before the ‘milestone’ climate summit in Copenhagen in 2009. But when the high-level political segment arrived there was no text on the table.⁹ Instead, the short and weak ‘Copenhagen Accord’ was hammered out behind closed doors by representatives of a handful of powerful states, not exactly a triumph for multilateral diplomacy.

Although the Copenhagen Accord was not the turning point in terms of *ambition* that many had hoped for, it was a turning point in terms of *approach*. The bottom-up pledge and review process has since been accepted as the major approach by most actors, thereby saying farewell to the seemingly more ambitious top-down approach inherent in the Kyoto

⁴ Steinar Andresen, ‘The Effectiveness of UN Environmental Institutions’, 7(4) *International Environmental Agreements: Law, Politics and Economics* (2007), at 317-36.

⁵ Ronald B. Mitchell, *International Politics and the Environment* (London: Sage, 2010).

⁶ Miles et al., *supra* note 2.

⁷ Underdal, *supra* note 3.

⁸ Andresen et al., *supra* note 1.

⁹ Joseph E. Aldy, *supra* note 1, *Toward a New Climate Agreement*, ‘Foreword’, at xii-xvii.

Protocol.¹⁰ This implies that all states can make their own pledges based on their own national circumstances, preferences and interests. Based on these pledges, it seems evident that the 2°C target of the Accord will not be met.

One of the few ambitious elements of the Copenhagen Accord was a promise by the rich countries to raise one hundred billion dollars a year from 2020 to assist developing countries, but based on experiences from the last COP in Warsaw in 2013, there are few indications that this will happen. In short, apart for some recent progress on the REDD + approach, very little has happened since Copenhagen. The most substantive achievement is the adoption of the ‘Kyoto 2’ protocol, running until 2020 when the new regime is supposed to be operational. Comparing the two protocols, however, the process has moved backwards more recently, as there are fewer countries with legally binding obligations today than in 2005 when the Kyoto Protocol came into force. Kyoto 2 is little more than a ‘EU+’ protocol. Until a new regime is in place there are no legally binding commitments for some eighty-five per cent of the global emissions, and the post-2020 UN regime will most likely be a weak bottom-up pledge and review regime.¹¹

3.2 A Low Effectiveness Regime

What has been the significance of a key feature of the institutional set-up of the Kyoto Protocol, the flexible mechanisms? Although they may have been innovative, so far they have not delivered much in terms of emission reductions. Joint implementation has not been much used; indeed, in a very comprehensive study it has been argued that the CDM has brought an increase in emissions and very moderate results in terms of contributing to sustainable development.¹² The quota trading system of the Protocol has never been applied, although it has contributed learning and diffusion and thereby spurred trading schemes in the EU and elsewhere. For various reasons, however, these measures have so far not led to significant reductions in emissions. In fact, we do not know how much of a difference the climate regime has made by using the flexible mechanisms compared to a business-as-usual scenario. Emissions would in all likelihood have been somewhat higher in their absence, but so far the economic ups and downs of the world economy as well as switches in energy base, both unrelated to climate policies, have been far more important for climate gas trajectories.¹³

Thus the rules, regulations and institutions laid down in the Protocol have not delivered much in terms of emissions reductions, so the score on the outcome indicator is bound to be low. In terms of solving the problem, this is a more distant dream today than it was when the regime was established more than two decades ago. The obligation of an average reduction in emissions of some five per cent for the Annex 1 countries has not had much significance, as most major emitters had no such obligations. Since the creation of the regime in 1992, global carbon dioxide emissions have increased by more than fifty per cent, and global emissions grew more than twice as fast in the decade after the 1997 Kyoto Conference than it had in the decade preceding that negotiation, illustrating the low effectiveness of the regime considering that it was set up to reduce emissions.¹⁴

¹⁰ Cherry et al., *supra* note 1, *Toward a New Climate Agreement*, ‘Introduction’, at xiv-xxix.

¹¹ Daniel Bodansky and Lavanya Rajamani, ‘The Evolution and Governance Architecture of the Climate Change Regime (October 28, 2012), *International Law and International Relations* (Detlef Sprinz and Urs Luterbacher, eds., MIT Press, 2nd ed. 2013) Forthcoming. Available at SSRN: <http://ssrn.com/abstract=2168859>

¹² Emma Lund, *Hybrid Governance in Practice: Public and Private Actors in the Kyoto Protocol’s Clean Development Mechanism*, PhD thesis, Lund Political Studies 168 (Lund University, Sweden, 2013).

¹³ Andresen et al., *supra* note 1.

¹⁴ Joseph E. Aldy and Robert N. Stavins, ‘Climate Negotiators Create an Opportunity for Scholars’, 337(6098) *Science* (2012), at 1043-4.

This seemingly represents a puzzle, as international diplomats have shown ability to deal quite effectively with many other international environmental problems, although the efforts have been much more modest in these cases. Why has so little progress been made in dealing with climate change?

4. Explaining the Modest Progress

4.1 A Very Malign Problem Structure

Turning first to the problem structure, climate change is an exceedingly malign problem due to a combination of several factors.¹⁵ First, climate mitigation is a global public good, meaning that no country can be excluded from sharing the benefits of climate mitigations, irrespective of efforts made. One implication is that most of the benefits of the mitigation efforts of one country go to other countries. Governments primarily concerned with the welfare of its own citizens have therefore little incentive for action. A second implication is that any one country's contribution to mitigation (apart from the two major emitters) makes only a very small difference for the global climate. Third, while the costs of reducing emissions are incurred immediately, the benefits are reaped in the distant future. Policy makers tend to have a short time horizon and therefore prefer measures with immediate benefits and delayed costs. They give priority to immediate social challenges such as the present financial crisis. Together these factors create a free-rider problem, and actors have a strong incentive to refrain from contributing to mitigation, while benefitting from the actions of others. A fourth factor is that reductions on the scale necessary for a real impact are very costly because almost all economic activities produce GHG emissions, making the free-rider problem particularly tempting. Finally, strong international asymmetries contribute further to the malignancy of this problem, as countries vary significantly both in terms of (historic) contributions to the problem as well as their vulnerability and ability to deal with the problem. Thus distribution of responsibility, justice and fairness between the North and South has loomed large during the whole negotiation process.

This malign problem structure goes a long way in explaining the lack of progress and not least the free-rider problem of the Kyoto Protocol. One should therefore not automatically conclude that the diplomats have failed. In fact, considering this problem structure, one may wonder why countries have bothered to deal with the problem at all, as most countries have reason to be free-riders. It should be noted, however, that the problem structure approach is inspired by game theory, the rational choice tradition, and narrow self-interest. The reason we have the present UNFCCC process at all is that not all states have narrow national self-interests as their guiding star for action. Many are also motivated by more normative ideas of 'doing the right things.' Also, many countries see it to be in their interest to deal with the issue due to perceived damage to their respective countries from climate change. With this caveat, let us turn briefly to the problem-solving perspective; with what institutional and political energy has this problem been attacked?

4.2 More Laggards than Leaders

Turning first to the concepts of power and leadership, in the two years leading up to the adoption of the Kyoto Protocol, the United States and the EU were essentially on the 'same page,' in terms of approach, paving the way for its adoption by jointly exerting leadership as the two most powerful actors. However, the South won through with the view that this was a

¹⁵ Cherry et al., *Toward a New Climate Agreement*, supra note 1.

problem created by the North, so they had to take the lead and the South should have no obligations to reduce emissions. When the United States left the Kyoto Protocol, the only actor with leadership aspirations was the EU. However, in order to exert leadership one needs to generate followers. In this sense the EU ambitions have generally been in vain, as none of the other significant actors have followed their example of adopting ambitious climate policy measures. Instead, the EU has faced an uphill battle against the United States and an increasingly vocal South, both rejecting taking on legally binding commitments. The high expectations regarding the Obama administration in 2009 proved to be wrong, as the sentiment did not change in the US Congress on this issue. Still, and somewhat paradoxically, the United States is the country with the steepest *reductions* in GHG over the last few years due to the introduction of shale gas, unrelated to climate policies. Also, the conflict between the United States and the EU has been reduced more recently, and the North–South conflict is now the most prominent one.

4.3 The Static Interpretation of the CBDR Approach

The main reason for the present stalemate therefore lies in the conflicts between the North and the South. As a rather rare example of equity concern, the developing countries have been exempted from any ‘hard’ commitments in the climate regime. However, at the 2011 COP it was argued that ‘the firewall’ between North and the South in terms of commitments was broken down, as the post-2020 regime should apply to all countries.¹⁶ What this will mean in practice is still uncertain, as it did not take long before key Southern countries rejected such an approach.¹⁷ The opposition from the South towards taking action is linked to the Climate Convention:

‘the Parties shall protect the climate system for the benefit of the present and future generations of humankind, on the basis of equity, and in accordance with their *common but differentiated responsibilities* (CBDR) and respective capabilities.’ (emphasis added by author).

This approach was fleshed out more specifically at COP 1, where it was specified that no new commitments should apply to non-Annex 1 countries. This principle or norm is perfectly justified considering the distribution of wealth between the North and the South as well as the responsibility for historic emissions in the early 1990s. The problem is how it came to be put into operation and even more: how this was cemented over time.

According to one analyst, this ‘anachronistic bifurcation of mitigation efforts – through the Annex 1 and non-Annex classifications – that has inhibited progress in tackling climate change for two decades’.¹⁸ The problem of this static interpretation is illustrated by looking at some relevant data since 1992. We have noted the overall strong growth in GHG emissions, but there is a strong disparity between the North and the South. In 2011 the developed world’s carbon emissions were six per cent below 1990 levels, while the developing world’s emissions had grown by more than 160 per cent – and their share is expected to continue to grow strongly over time. Figures also show that sixty-nine non-Annex 1 nations are richer than Ukraine, the poorest Annex 1 state. In terms of emissions per capita, seven of the ten countries with highest per capita emissions are non-Annex 1 countries, and China alone is

¹⁶ Bodansky and Rajamani, *supra* note 11.

¹⁷ Aldy, *supra* note 9.

¹⁸ Aldy and Stavins, *supra* note 14.

responsible for twenty-eight per cent of the emissions. In contrast to the United States, those emissions will continue to rise.¹⁹

In short, the world is a very different place today regarding the North-South divide than it was in 1992. While the South was right in underlining the importance of considering historic emissions in 1992, it does not make much sense to ‘stop history’ in 1992, as the South has in fact done by their interpretation of the CRBD.²⁰ There is no doubt that the North should and could do much more than they have presently done in terms of reducing emissions. However, in light of present realities it becomes too simple to blame the North only. In order to create a more just and effective regime the many and strong emerging economies also have to take more responsibility and not hide behind the static North-South divide.

5. Concluding Comments

In short, the UNFCCC regime is weak, and the main reason is the malign problem structure. Some innovative steps have been initiated by the regime, but these have been insufficient to prevent increasing emissions. We know what it takes to get a more effective regime, as a stronger regime needs incentives for ratifications with deep commitments, incentives against withdrawal, and incentives for countries to comply with their commitments.²¹ However, the chances of getting there based on experiences so far, as well as present political realities, seem slim. The main reason is that climate change is usually conceived to be an environmental problem, but as GHG emissions go to the heart of the global economic and energy systems, much stronger governance mechanisms are needed than what the UNFCCC can mobilize. Given expected global economic and population growth, it is difficult to see a much more effective UNCCC regime on the horizon.

Still, there are positive developments in terms of climate action at various governance levels as well as technology – end energy developments that hold some promise for the future. When it comes to the UNFCCC, a first important step would be to introduce a more dynamic interpretation of the CBDR approach, as history did not stop in 1992.

¹⁹ Aldy, *supra* note 9; Steffen Kallbekken, ‘Observation from the climate negotiations in Durban, South Africa’, in *Toward a New Climate Agreement*, *supra* note 1, at 3-16.

²⁰ Kallbekken, *ibid*.

²¹ Cherry et al., *Toward a New Climate Agreement*, *supra* note 1.