Climate change poses serious challenges to traditional global environmental governance models and by doing so, demonstrates itself to be a fascinating issue on a number of fronts. For one, it represents a strong challenge to traditional, (neo-) realist paradigms of international order, which assume state/national hegemony in an anarchic world, although the staying power of the neo-realist model in frustrating real progress on climate change should not be underestimated. This dimension will not be addressed in this paper.

Second, the issue represents the concrete manifestation of sustainable development. While at its core climate change remains an environmental issue, the responses required to effectively address it lie far beyond traditional environmental challenges (such as ozone depletion or acid rain). So far, in fact, that legitimate questions arise as to whether the appropriate policy/negotiating fora for addressing climate change should be left in the hands of Environment Ministers.

This article argues that, to address the multi-faceted climate challenge we face, governance efforts must evolve beyond the current global regime-building model and that environmental and development policies must become much better integrated.
In the 20-plus years that climate change has been a subject of serious international negotiations, we have seen a trend of broadening participation in those deliberations, but, for the most part, it continues to be led by environment departments and constituencies. Initially, when the science of climate change was the dominant topic, the discussions were, not surprisingly, dominated by climate and meteorological specialists who sometimes were based in environment departments and sometimes not. In Canada, for example, the initial group responsible for negotiating the United Nations Framework Convention on Climate Change (UNFCCC) was Atmospheric Environmental Services Canada, the sector of Environment Canada responsible for weather forecasts and atmospheric sciences. This was fairly typical of most countries, with the notable exception of the United States, where all international negotiations—including those on environmental issues—have been led by the State Department. Much of the reason the environment departments took such a predominant position in all matters relating to climate change—including mitigation and adaptation—is rooted in the establishment of the Intergovernmental Panel on Climate Change (IPCC). It was founded by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) and was mandated 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. What was interesting right from the start was that, despite the fact that the IPCC was very much the brainchild of UNEP and WMO, it ventured into areas far beyond their particular expertise. While Working Groups (WG) I and II, focusing on the science and impacts of climate change, clearly implicated the climate and environmental scientific community, WG III, focusing on (adaptation—in the First Assessment Report—and) mitigation activities, required expertise far different from climate or environment, comprising development economists, energy specialists, agriculturalists, foresters and so forth.

And yet, WG III continued to be led by individuals and staffed by secretariats that first held extensive experience in climate change matters. Even when it did begin to engage specialists from these fields, it usually was dominated by those who had a strong background in the climate change field—i.e., more often than not, they would be energy specialists from an environmental department rather than a “pure” energy specialist.

It must be noted that this issue has been recognized by the IPCC in its development of the Fourth Assessment Report. WG III, under the leadership of Bert Metz of the Netherlands, actively sought out sector experts and industry specialists in the development of the report, and also held a series of “outreach” sessions with industry around the world to ensure that they had ample opportunity to contribute to the development of the final report.

Nor, of course, does the Panel work in a “vacuum.” It served as the credible, independent source of scientific information for the development of the UNFCCC and later the Kyoto Protocol. In particular, the role of the First and Second Assessment Reports cannot be underestimated in laying the groundwork and support for the Convention and the Protocol.

It was hoped that the Fourth Assessment Report will work in the same manner, providing momentum towards a successful launch to post-2012 negotiations at Bali. In this interaction between the IPCC and the UNFCCC, it must be kept in mind that many of the government reviewers of the Summaries for Policy Makers and the Synthesis Reports were also, in fact, negotiators at Rio and Kyoto. What we constantly have to be on the watch for is having policy developed by a tightly knit climate change community that does not sufficiently reach out to the “mainstream” of policy-making.

Of course, one of the other critical institutional features of the UNFCCC process was, and continues to be, an extremely competent and (despite formally answering to UNEP) autonomous secretariat. One of the unintended impacts of this feature had been to further marginalize UNEP as an effective international champion for sustainable development—the very issue that has helped raise the environment to the top of the global agenda was the one issue that UNEP has had the least direct control in managing (at least at the international policy/management side). Having such a competent secretariat also had the unintended effect of limiting cross fertilization with other UN multilateral institutions in championing sustainable development. This has not only helped to further marginalize UNEP, but also made more difficult coordination with other agencies and institutions that were not able to demonstrate the same degree of commitment and/or capacity.

All of these factors played a role in determining where we ended up with Kyoto. What at the end of the day was the outcome of Kyoto? And can we learn lessons from that experience so that the post-2012 regime captures a broader group of emitters with more realistic targets, particularly for countries whose economies are rapidly growing and rely on natural resources for a large part of that growth? Kyoto played a critical and necessary role in establishing a global value to carbon and in sending positive investment signals, directly and indirectly, for clean energy investments worldwide. By itself, this is a tremendous achievement, and in the view of the author, more than justifies the treaty coming into force. In addition, it set in place the critical architecture for responding to climate change, covering reporting, monitoring, verification and compliance regimes (as weak as the latter is) and coordinated market mechanisms, under the Clean Development Mechanism (CDM), Joint Implementation (JI) and International Emissions Trading (IET).

Kyoto’s largest weakness, in my view, was the politically charged, top-down process by which targets were established, with all too little thought by country leaders whether (a) those targets were achievable and (b) how we could go about achieving them. I would submit that, starting at Bali, this is the time to get that dynamic set right and not be so panicked about
having ever more stringent reduction targets (by fewer and fewer participants) so as to maintain fealty to the altar of environmentally correct thinking. The targets established at Kyoto were much more the result of an agreement amongst G8 leaders trying to “outgreen” one another than any rigorous analysis.

There is a growing consensus that, at the very least, global greenhouse gas (GHG) emissions will need to be reduced by at least 50 per cent by the middle of this century. Clearly, achieving such a goal will require the engagement of all major economies and, just as clearly, those same countries need some time and opportunity to seriously figure out what they can do domestically; how regional or international coordination can help; and what the potential contributions of discrete sectors are in that formulation. Give the economies some time to address these questions seriously—publics won’t let them do otherwise—and then revisit the possibility of a globally binding regime by the end of this decade, assuming countries are now much more informed and engaged on what they can actually accomplish.

What does this mean for the short- and long-term international governance of climate change? The UNFCCC should continue to play the critical environmental role as the home and protector of Article 2—the ultimate objective of ensuring that anthropogenic interference does not play a damaging role to the global environment. It also needs to continue reviewing countries’ actions and should expand that activity to reviewing the effectiveness of regional and bilateral efforts to reduce greenhouse gas emissions. In other words, it should be the “bellwether,” in cooperation with the IPCC, in notifying where emissions are going and what the likely concentrations impacts of that would be. It should also serve as the pressure point in clearly identifying what emission reductions would be expected at these different levels and report on the extent to which those “targets” are being met.

In addition, a more effective regime clearly needs to be established on the mitigation side—and here we could look at the possibility of establishing expert tables/fora where industry, academics and governments can work together and seriously commit to ways in which they can cooperate to alter the course of development in climate-friendly and clean energy directions. This in no way should be considered as an “out” for addressing climate change as an urgent issue. We have an increasingly limited time to get this right—anywhere from 120 to 200 months to stabilize global GHG emissions if we want to avoid the risk of serious environmental and social damage. In that respect, while some may want to use the Asia-Pacific Partnership on Clean Development and Climate (AP7) model as an example of how to proceed on the mitigation side, I am proposing some important differences. For one thing, these sector groups need to agree on what their contributions to a global reduction should be. Initially, if sectors can’t come to agreement, simply use their current emissions profile in determining what would be an appropriate contribution. But it might also be in other formats. For example, in the case of carbon capture and storage (CCS), setting target dates for a certain percentage of coal-based plants in a country/region to have CCS implemented on-site. Another example might be supporting renewable energy by setting targets for the penetration of renewables in a country/region’s energy profile. This means, of course, that any such initiative must have some real and significant money behind it, with clear programs of action. And, of course, it must have a broader constituency comprising all major economies, including the European Union.

One requirement for such a regime would be a new maturity in industry whereby, and this is particularly the case for the energy industry, it will need to depart from its parochial ways and truly seek solutions in its sectors that work for the common good. Industry must do more than either justify current practices or set about focusing on why their particular technology represents the answer to all the world’s woes. A tall order, I know, but an absolutely critical one for industry’s more serious and active participation to have any credibility.

Does this activity need to take place strictly under UN auspices? Perhaps I might try to reformulate a legendary Canadian policy response to fit this particular debate. During World War I, Canada’s Quebec-Anglo relations were severely tested on the issue of mandatory military service with Quebec strongly opposing any such measure, and English Canada supporting it as strongly. Prime Minister William Lyon McKenzie King’s answer to the question (over the interim before the government decided in favour of conscription): “Conscription if necessary, but not necessarily conscription.”

I would submit we are in the same kind of sensitive quandary on the question of an international regime on GHG mitigation activities—outside the UNFCCC if necessary, but not necessarily outside the UNFCCC. This proposition in no way is intended as a slight to the already mentioned unparalleled competence of the secretariat. In fact, the secretariat needs to be strongly commended, particularly under the current leadership of Yvo de Boer, in seriously exploring innovative ways in which non-governmental actors, including industry, can play a more effective role in the multilateral process.

My argument has more to do with the current reluctance of major economies—including three of the top four global emitters—to submit their GHG emissions activities to strict, internationally binding commitments. If, for example, a mitigation regime strictly under the UN means further delay in the U.S. on a post-2012 agreement, due to its Senate being unable to ratify such an agreement, then why not try and set up an alternative structure, even if only as an initial step? Or, given the challenges faced in ratifying any international binding agreement in the U.S. Senate, could we actually envision a situation where the UN regime would apply everywhere but the U.S.? And if so, what would motivate major developing country economies to agree to submit to a system the U.S. would refuse?
These are all extremely difficult questions of course. What can the UN system do to build more confidence on the part of major economies to submit to an internationally binding GHG emission cap regime? It certainly needs to continue to build new ways in which to engage actors other than states in their particular areas of expertise. Is it perhaps time, as the Pew Centre, the World Business Council for Sustainable Development (WBCSD) and others are proposing, to relax the reins a bit in the UNFCCC when it comes to absolute, legally binding targets? The advocates argue that this may provide an opportunity for a serious re-visiting of what can actually be accomplished, and, once that's clear, major economies may be less reluctant to commit to an internationally binding regime. Others are legitimately concerned that such an approach would play into the hands of the disingenuous who will have found yet another effective delay tactic in making any real progress.

However, there may be a new “trump” on the global policy horizon which will force the issue, and that is global public opinion. Unlike at Kyoto, the public won’t let us get away with smoke and mirrors any longer, so now governments have little choice but to seriously address the issue. The goal, over the longer term, certainly by the end of the next decade, is a mitigation regime that finds a home in a reformed UN—one that has managed to make itself less a state-centric institution (at least on the issue of climate change) while being able to effectively engage economic, natural resource and energy decision-makers in both the public and private sectors.

Some thought also needs to be given to the international carbon market and whether the UN should continue to be the home for the international registry, recording and approving all individual transactions under International Emissions Trading (IET), the Clean Development Mechanism (CDM) and Joint Implementation (JI). Again, to this point, the UNFCCC has played an invaluable role in getting these mechanisms off the ground. But as international standards become codified on the different modes of carbon market transactions, thought should be given towards divesting these tasks to an external entity (or entities), whereby an independent oversight body would oversee a range of national and private registries.

**Development and Climate Change**

A sustainable future regime also has to be closely tied to an aggressive development agenda for developing countries and least-developed countries (LDCs) consistent with the agreement or “bargain” struck in drafting Agenda 21 at the Rio Summit in 1992: namely, that developing countries will shoulder important environmental responsibilities and, in return, developed countries will take on serious commitments to help fund and support them in that process. At the very least, it was expected that member governments of the Organisation for Economic Co-operation and Development (OECD) would meet their commitments to provide .7 per cent of their GDP to provide development assistance. Other modalities for this deal have been the subject of debate ever since, but an important area of unexploited potential lies in global trade and investment.

In the area of trade, the current Doha Development Agenda is in danger of coming to a standstill, in no small part because countries cannot agree on what constitute appropriate trade measures to foster development in developing and least-developed countries. This question is an important one to get right: these negotiations have more implications for development than any number of bilateral initiatives by official development agencies, even if they were to meet their .7 per cent commitment (which, it is clear, the vast majority of OECD countries will not). A good deal on the Doha track could work to ease negotiations around a post-2012 climate change regime, by creating the necessary good will; by fostering the requisite economic growth and restructuring that will make developing countries better able to contribute; and through targeted reforms and provisions specifically designed to help trade law and policy help combat climate change and contribute to the deployment of clean energy systems and technologies.

In the area of investment, there is no obvious institutional home for international efforts to foster the critically needed flows of clean energy investment in developing countries, and for helping to ensure that they foster development. In part, this is because the investment “regime” is scattered among more than 2,500 bilateral investment treaties and a growing number of investment chapters in free trade agreements. One possibility for international efforts in this area might be the Energy Charter Treaty—a pan-European and Asian treaty designed to foster increased energy investment and trade—which could house a new initiative explicitly based on the principles of clean energy investment.

Nor has the issue of climate change been effectively integrated into the mainstream activities of development agencies. Developing countries have, for the most part, not identified climate change as an issue of concern to development agencies. A number of analyses have indicated that, while there have been some successful initiatives, particularly those related to supporting the G77 and China in their National Communications under the UNFCCC and, to a lesser extent, helping them develop National Adaptation Strategies, these successes have not spread into “normal” technical assistance. In other words, the strong linkages that do exist among the threat of climate change and poverty eradication and development are still not appreciated at the field level. A challenge on the
donor side is to engage finance and development planners effectively in the climate policy discussion, whereas recipients have to acknowledge that they need to identify climate change in their development planning activities more effectively.

At the end of the day, the most critical component in developing a global regime on climate change with the full engagement of developing countries requires a much more effective basis and means of complementarity among official development assistance (ODA), foreign direct investment (FDI) and sustainable development. Surely ODA and private financial resources can play more effective complementary roles than is currently the case. The efforts of Bretton Woods institutions, including the World Bank (WB) and the International Monetary Fund (IMF), have been making progress, but more in terms of financial contributions and actions, needs to be done. The focus needs to be on “greening” the process of economic development, including providing clean energy to those without, improving forestry practices/slowing deforestation and putting in place sustainable urban transportation systems.

If the CDM and other market-based initiatives can successfully fund mitigation activities in developing countries, they will help ensure that limited ODA funds can be most effectively used where the private sector is not likely to be nearly as active, for example, in the field of adaptation. But we should be careful not to be too simplistic or formulaic in our prescriptions—there is a clear need for ODA to support capacity-building activities related to the CDM, for example in helping developing countries set up National Designated Authorities or in helping them to develop national sustainable development criteria. And the World Bank’s Carbon Fund and the initiatives of governments such as the Netherlands (although not directly tied to ODA) have been extremely useful in helping to ensure that the CDM is a major player in the international carbon market. That said, as the carbon market matures, particularly after 2012, one hopes that the WB and these national governments will play a less prominent role in developing a certified emission reductions (CER) market, leaving it to the private sector to be the major player in that market.

Nor should we immediately dismiss prospects for private-sector participation in adaptation-related activities. Private-public partnerships, such as joint ventures between insurance and investment firms with the cooperation of multilateral development banks (MDBs) could go a long way towards funding adaptation-related activities. In addition, CDM carbon sink investments, for example, if properly designed, can provide sustainable mitigation and adaptation benefits. Traditional climate policy tends to isolate adaptation and mitigation and assumes that one chooses from a portfolio of independent adaptation and mitigation options. It is argued that adaptation benefits are felt locally in time and space, whereas mitigation benefits (as opposed to the direct benefits of energy provision) are felt distant in time and on a global scale. Even if large methodological hurdles can be overcome allowing costs and benefits to be reliably estimated on vastly different temporal and spatial scales, mitigation and adaptation measures are only substitutable at the global level and relevant only to some non-existent global decision-maker. However, such analysis provides no practical insight at the project or national/regional scale, where adaptation and mitigation decisions will actually be taken. The potential for project-level integration of adaptation and mitigation is also downplayed, and likely reflects the residual northern domination of the climate debate. Instead, it might be more beneficial and effective if we examined the potential for adaptation and mitigation synergies, particularly to the extent that such activities support ecosystem-oriented poverty alleviation priorities, as counselled by the World Summit on Sustainable Development in its Plan of Implementation in 2002.

Poverty is both a driver and an outcome of critical sustainable development-climate linkages, such as energy deprivation, desertification and deforestation. The ecosystem focus to poverty alleviation moves us beyond the rather platitudinous observation that the poor are endowed with the least adaptive capacity and hence are most vulnerable to climate change, to practical intervention policy. The WB’s initiatives on the Community Development Carbon Fund and the BioCarbon Fund represent innovative investments that provide a twinning of adaptation and mitigation opportunities. Recognizing the challenge of delivering GHG reductions in a competitive CDM market environment, these funds are explicitly established to help small-scale projects from the local community become competitive in the global market. In focusing on adaptation opportunities, while also emphasizing GHG credit reduction opportunities, the Bank is helping to highlight the potential role of the private sector in natural resource management activities.

The key implication is that coherent climate policy as it relates to developing countries must become much more closely aligned with and, indeed, one aspect of a sustainable development pathway committed to poverty alleviation. Climate change mitigation is a large co-benefit of this approach. The reader is cautioned that the intersection of adaptation-mitigation benefits is not proposed as a panacea for climate policy; it is however, proposed as a logical and equitable prerequisite to engaging the South in an eventual comprehensive post-Kyoto mitigation regime.

In relation to ODA, it must be emphasized that the extent to which the market can help bear the costs of climate change, including adaptation, is the extent to which we are dependent on ODA to deliver on an issue that is but one of many, and vastly less important than most developing countries’ immediate priorities for development and poverty eradication.

Bringing it All Back Home

With respect to developing countries, then, it is critical that attention be paid to domestic implementation mechanisms and priorities. In particular, institutionalization of climate change issues in domestic government agencies would effectively create “champions” for mitigation and adaptation within governments of developing countries. This engagement is a crucial step, which would build a constituency for action and help give domestic and
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foreign businesses and NGOs reliable points of contact to engage governments on climate change. It also means much more effective co-ordination between aid agencies and international financial institutions (IFIs) and enhanced coherence, in turn, with the FDI flows to developing countries. And finally, above all, for OECD countries, it means showing leadership at home.

OECD countries must demonstrate that they are taking significant actions at home to mitigate climate change and without compromising their economic objectives. Until developing countries can see that this is in fact the case, the prospects for bringing them aboard will always be limited. But what, at the end of the day, is the proper role of development aid and financial flow considerations in the post-2012 negotiations? First of all, we would strongly advise that Parties have a much more realistic understanding of how appropriate development takes root in developing countries. For example, in the area of technology transfer, it needs to be recognized that most of these technologies are not in fact a public good, but the result of private-sector investments. Even if OECD countries strongly increase their ODA contributions, what will be made available for climate change is likely to be limited. This calls for innovative solutions whose surface is only beginning to be scratched. For example, the work of Lewis Milford of the Clean Energy Group,10 in exploring the potential precedent of innovative approaches in the distribution of AIDS pharmaceutical products, is a valuable contribution to this discussion.

My prognostication for the future? Not entirely well-founded, but it remains (guardedly) optimistic. I would fully expect that by 2025 we would be back to where we started in a sense—a multilateral system of internationally binding targets, but the important difference would be twofold. The emission targets would be met and we would have a much broader community of major emitters engaged in those activities. In other words, today, countries need to breathe in, seriously look at what they can do and by when, and with that information confidently go forward in joining an internationally binding regime that will literally determine the mode of societies’ development over this century and beyond.

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2 WG III is the Working Group responsible for discussing the range of mitigation activities available to address climate change.
4 In personal discussions with both Americans and Australians (neither country ratified the Kyoto Protocol), I have been told that the likelihood of either of those countries establishing national/regional systems would have been much more difficult without the external pressure of the Kyoto regime.
6 http://www.encharter.org/
8 http://carbonfinance.org/Router.cfm?Page=CDCF
9 http://carbonfinance.org/Router.cfm?Page=BioCF
10 http://www.cleanegroup.org/

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