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Ethical Analysis of Climate Science and Policy

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Minimum Ethical Criteria For All Post-Kyoto Regime Proposals: What Does Ethics Require of A Copenhagen Outcome

By DONALD A BROWN on December 29, 2008 8:22 PM | [1 Comment](#)

I. Introduction

During the first two weeks of December of 2008 in Poznan, Poland, international negotiations under the United Nations Framework Convention on Climate Change (UNFCCC) considered various proposals for replacing the Kyoto Protocol with a new climate change regime. This was done because the Kyoto Protocol ends by its own terms in 2012. The Kyoto regime is often referred to as the first commitment period under the UNFCCC. In Bali, Indonesia last year, the international community agreed to negotiate a climate change regime that will constitute the second commitment period under the UNFCCC in two negotiating sessions. The first of these took place in Poznan last month and the second will take place December, 2009 in Copenhagen.

Although little progress was made in Poznan on the architecture of a new second commitment period, various proposals were considered by the international community in discussions about a vision statement to guide future negotiations and in Poznan side-events sponsored by governments and NGOs.

In the next few months, ClimateEthics.org will post ethical analyses of issues raised by specific proposed climate change frameworks being considered to replace the Kyoto Protocol. In doing this analysis, ClimateEthics.org will focus on proposals that are getting serious attention by the international community. Some of these proposals include, for instance:

- Contraction and Convergence, <http://www.gci.org.uk/contconv/cc.html>
- Sector Approaches. <http://www.wri.org/publication/slicing-the-pie>.
- Greenhouse Development Rights <http://www.ecoequity.org/GDRs/>
- Status Quo or Grandfathering Emissions, various national proposals.

ClimateEthics.org seeks to encourage greater ethical reflection on these and other proposals for three reasons. First, the international community should strive to seek just solutions to climate change because justice requires this. Second, a failure to find a just solution to climate change will likely exacerbate existing injustices in the world. Third, the failure to identify acceptable just solutions to climate change will likely create barriers to an urgently needed global approach to climate change because only just climate change solutions are likely to get "buy-in" by nations around the world. Therefore, the need to reflect on the ethical dimensions of post-Kyoto climate change regimes and emissions targets is both compelled by justice and practical considerations. ClimateEthics.org predicts that ethical reflection on some of the post-Kyoto regime proposals will conclude that some proposed regimes are ethically acceptable, others ethically problematic, and some represent legitimate compromises between competing ethical considerations. In the next few months, ClimateEthics.org will examine these issues as well as other ethical considerations triggered by issues under consideration in the Poznan and Copenhagen negotiations.

This post argues that although different post-Kyoto regime proposals might ultimately lead to different ethical conclusions, all post-Kyoto proposals must satisfy two minimum ethical considerations. That is each proposed post-Kyoto regime must:

- Require sufficient greenhouse emissions reductions to assure that the international community is on a greenhouse gas emissions reduction pathway that will prevent dangerous climate change harm. This is sometimes referred to as the environmental sufficiency criteria.



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- Begin to base differences among national allocations on the basis of equity and justice. This is sometimes referred to as the equity criteria.

Because all post-Kyoto regime proposals must satisfy these two criteria, all nations and regime proponents should be required to explain how their proposals for the second commitment period under the UNFCCC satisfy these criteria. Although there are other significant issues on the negotiating agenda for Copenhagen including deforestation, adaptation, and technology transfer that also raise important ethical questions for the international community, any outcome of Copenhagen must satisfy these first two criteria at a minimum.

II. Environmental Sufficiency: Putting Global Emissions On A Safe Reduction Pathway

The amount of damages caused to humans and ecological systems by human-induced climate change depends on the magnitude of the temperature change. The amount of temperature increase that will be experienced is dependent on the GHG atmospheric concentration levels. The concentration of GHGs in the atmosphere depends on the collective action of GHG emitters around the world as well as changes being made to natural systems that have an affect on carbon storage.

There is a growing consensus in the scientific community that world is running out of time to prevent dangerous climate change, that is time to keep atmospheric concentrations of GHG below safe levels. Many scientists, for instance, have urged that the international community should stabilize CO₂ gases in the atmosphere at 450ppm to give some hope of avoiding a 2°C human-induced increase in global climate temperature. (See for instance, UK, 2006, Avoiding Dangerous Climate Change, <http://www.defra.gov.uk/environment/climatechange/research/dangerous-cc/index.htm>). Yet, stabilizing at 450 ppm of carbon equivalent will require large and rapid global responses.

The conclusion that the world should limit additional warming to 2°C has been derived from work of the Intergovernmental Panel on Climate Change (IPCC) which found that the probability of many dangerous climate change impacts increases significantly above 2°C warming.

Although the 2°C dangerous warming threshold was derived from IPCC 's work, the IPCC never defined dangerous climate change as 2°C, and in fact quite appropriately concluded that what is "dangerous" is an ethical issue, not a scientific question because what is dangerous depends on where one is in the world and how vulnerable one is to climate change impacts. Some parts of the world, for instance, are very vulnerable to small increases in ocean levels or increases in drought that would be caused by very small increases in global temperatures. In fact, IPCC has concluded that some people in some parts of the world are already experiencing adverse impacts of climate change and therefore for them climate change may already be dangerous.

Further complicating the problem of limiting climate change to non-dangerous levels is created by scientific uncertainty about how much warming can be expected with different stabilization levels of atmospheric greenhouse gas concentrations, generally referred to in climate change science literature as scientific uncertainty about "climate sensitivity." (For a good discussion about where to draw the line on acceptable climate change, see, Baer and Athansiou, *Honesty About Dangerous Climate Change*, http://www.ecoequity.org/ceo/ceo_8_2.htm).

Because of scientific uncertainty about climate sensitivity, even low levels of greenhouse gas atmospheric concentration such as 450 ppm CO₂ could pose a significant threat that the 2°C level will be exceeded.

The fact that the world is running out time to prevent atmospheric concentrations from exceeding these low levels without hard-to-imagine global limits on greenhouse gas emissions is the basis for great concern in the scientific community. For this reason, many scientists argue that preventing dangerous climate change is a civilization challenging problem of highest urgency.

Fueling the already heightened sense of urgency is a recent paper by Jim Hansen and seven other authors that concluded that additional warming should be limited to 1°C warming and to do this existing atmospheric concentrations of CO₂ must not only not be allowed to rise the small amount to 450 ppm of carbon equivalent but must be reduced from existing levels of 385 ppm to 350 ppm CO₂. (Hansen et al, Target CO₂ : *Where Should Humanity Aim?*) According to this paper, the world has already shot past the level of atmospheric concentrations that will lead to dangerous climate change. If this view is accepted, the world has already used up all of the assimilative capacity of the atmosphere and biosphere that has been available to not trigger dangerous climate change.

As we have previously argued on ClimateEthics.org, no nation may now deny that it has an immediate duty to restrict its emissions to its fair share of safe global emissions even though low emitting nations may have strong arguments that they are not currently exceeding their fair share of safe global emissions and therefore they need not agree to reduce their emissions at this time. (See <http://climateethics.org/?p=37>) That is, all nations have climate change prevention responsibilities even though low emitting developing nations may be able to make compelling ethical arguments that their current level of emissions do not violate their global responsibilities.

Since many nations enter climate change negotiations as if national interest rather than global responsibility is an adequate basis for national climate change policy, it would constitute a major change in how climate change negotiations were conducted if each nation were required to

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demonstrate how their national climate change policies or proposals for future climate regimes fulfill their global responsibility to prevent dangerous climate change. Yet many national climate change policy justifications and many proposals for second commitment period climate change regimes fail to explain how they are an element in a global climate change strategy that will prevent catastrophic climate change. For this reason, ClimateEthics.org strongly urges that the UNFCCC require all proponents of post-Kyoto regimes and emissions targets explain how their proposal leads to the avoidance of dangerous climate change.

No second commitment period regime proposal satisfies minimum ethical obligations unless it demonstrates how it fits into a global solution to avoid dangerous climate change. This is so because it is widely believed that the international community is running out of time to avoid dangerous climate change and the second commitment period will establish national obligations until 2020. Moreover, in becoming parties to the UNFCCC, nations of the world agreed that they would reduce greenhouse gas emissions to prevent "dangerous anthropogenic interference with the climate system." For this reason, nations are already bound to act in cooperation with others to prevent dangerous climate change. Therefore, no national climate change policy makes sense or is in compliance with existing obligations unless it demonstrates how implementation of the policy in combination with the action of others avoids dangerous climate change. For this reason, nations should not be viewed to set acceptable climate change policy without demonstrating in a strategic plan how that nation's policy in cooperation with others leads to avoidance of dangerous climate change.

Since the second commitment period will only likely establish national obligations until 2020, it may not be necessary that the second commitment period regime architecture solve the entire climate change problem facing the world in this century, but it is very likely too late to postpone putting the world on a emissions reduction glide path that has hope of avoiding dangerous levels of atmospheric concentrations of greenhouse gases. Strict second commitment period reduction targets are necessary to avoid putting the world in position that would make it impossible to achieve the reductions in the third and later commitment periods needed to avoid dangerous climate change. In fact, if Jim Hansen and his colleagues are correct in the above referenced paper, the world must phase out all coal fired power plants within the next 20 to 25 years to avoid dangerous climate change and therefore the ground work for this phase-out must take place in the next decade and therefore within the second commitment period.

If what is "dangerous" climate change is an ethical question, second commitment period proposals must not only explain how quantitatively their implementation will put the world on a emissions reductions glide path to avoid dangerous climate change but also defend a view of what ethical considerations have led proponents to determine what level is "dangerous." Given that a case can be made that current levels atmospheric GHG concentrations are already harming or putting people and ecosystems at risk, it will be difficult to make an ethically acceptable case why atmospheric GHG concentration targets higher than current levels are justified unless consent is given by those who are already vulnerable to levels of warming already being experienced. Yet many policy makers often assume that atmospheric concentrations significantly higher than current levels, such as 550 ppm CO₂, are legitimate policy options for avoiding dangerous climate change. Such elevated GHG gas atmospheric concentrations would only be ethically legitimate policy options if those most vulnerable to climate change impacts consented to be put at risk.

For this reason, ClimateEthics.org also urges that proposals that would allow atmospheric concentrations to rise above existing levels be subject to rigorous ethical scrutiny, an examination that would look at proposed increased GHG atmospheric targets from both a procedural and distributive justice standpoint. If what is "dangerous" is a matter of ethics as well as science, proponents of higher atmospheric GHG concentrations should be required to be transparent in their ethical analysis of what is dangerous that allows them to conclude that higher levels are ethically acceptable and not "dangerous".

For these reasons, each national climate change policy proposal and each post-Kyoto regime proposal must be understood to be implicitly a proposal on: (1) how to avoid dangerous climate change to others, and, (2) an ethical justification on what constitutes a "dangerous" level of atmospheric GHG concentrations.

And so all post-Kyoto regime proposals must, at a minimum, prescribe global emissions reductions targets that will put the world on a glide path to avoid dangerous climate change. That is no proposal for a post-Kyoto regime is ethically acceptable unless it provides for emissions reductions that will put the world on a safe emissions reductions pathway. This is a minimum ethical requirement of all post-Kyoto regime proposals.

III. The Equity Criteria: Assuring A Just Allocation Of National Targets

To reduce ethically intolerable impacts from climate change it will be necessary to limit total global GHG emissions. To achieve a non-dangerous atmospheric target, nations will need to reduce their GHG emissions in such a way that total emissions from all nations do not cause atmospheric emissions to exceed acceptable levels. How to assign responsibility to nations, governments, businesses, organizations, and individuals so that safe global emissions levels are not exceeded is a problem of fair and equitable allocation. Equitable allocation is the second minimum ethical requirement for any second commitment period under the UNFCCC.

In thinking about what equity requires it is important to consider that nations have made widely different contributions to global GHG atmospheric concentrations in terms of total tons of

emissions, per capita emissions levels, and when GHG were emitted (Argawal, and Nairin 1991; Estrada-Oyeala, 1992).

Also in thinking about equitable allocations, proponents of post-Kyoto regimes must acknowledge that in the absence of funding for new technologies, many poorer nations will need to emit more GHGs than their current level in order to meet basic human needs for food, shelter and security (Shue, 1994). In addition, many of these developing nations have contributed little to the rise in GHG in the atmosphere over last several hundred years. Yet, other developed nations' current level of emissions far exceed those needed to meet basic human needs.

Some norms about responsibility for damages from human-induced climate change are well established in a variety of international agreements including the Rio Declaration on Environment and Development, United Nations Framework Convention on Climate Change (UNFCCC), and the Kyoto Protocol to the UNFCCC.

For instance, the Rio Declaration on Environment and Development states in relevant part:

- States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and **the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction** (UN, 1992a, Principle 2)
- National authorities should endeavor to promote the internalization of environmental costs and the use of economic instruments, **taking into account the approach that the polluter should, in principle, bear the cost of pollution**, with due regard to the public interest and without distorting international trade and investment (UN, 1992a, Principle 16)
- States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage. **States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction** (UN, 1992a, Principle 13).

Additional norms relevant to responsibility for damages caused by one nation to another are contained in the United Nations Framework Convention on Climate Change (UNFCCC) including:

- Recalling also that States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and **the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction** (UN 1992b, Preface).
- The Parties should protect the climate system for the benefit of present and future generations of humankind, **on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.** (UN, 1992b, Art. 3).
- **The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures**, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost (UN 1992b, Art 3).

And so under international law, nations have a duty to prevent harm to others from polluting acts within their boundaries, pay for pollution harm to others, take action to reduce pollution even in the face of scientific uncertainty about impacts, and proportion responsibility among polluting nations. For this reason, allocations among nations for GHG emissions levels must be consistent with these obligations.

Under the UNFCCC several nations have made specific proposals on criteria to define what principles constitute "equitable" reductions. They can be grouped as:

- a. *Ad hoc proposals*, including (1) proposals that divide total global emissions into equal shares between developed and developing nations, and; (2) proposals that proportion GHG allocation to a nation's GDP.
- b. *Equal per capita proposals* suggested by many developing nations have it that national allocations should be based upon the idea that all human beings should be entitled to an equal share of the atmospheric commons.

- c. *Status quo* proposals proposed by several developed nations that suggest that current emissions should be recognized as entitlements. For example, the United States has only been willing to negotiate emissions reductions from current levels. The justification presented for the position is that those who have first used natural resources have a right to continue to use it at levels that are based upon past use.
- d. *Mixed proposals* have suggested allocation rules combining equal per capita considerations, equal percentage cuts, status quo, and historical responsibility. (Brown 2002; Rose, 1998; Meuller 2001; Meuller 2002)
- e. *Polluter Pays and Proportionality Principles*. These principles would base allocations upon each nation's historical contribution to damages caused by climate change.
- f. *Satisfaction of basic needs*. This principle urges that the poorest nations should be first in line to receive allocations needed to meet the basic needs of their citizens, so that it is possible for them to fully participate in the world.
- g. *Comparable Burdens Principle*. This Principle would suggest allocations where each nation share the effort of reducing emissions to safe levels equally, for example, by allocating an equal percentage of its GDP to GHG reduction.
- h. *Ability to Pay Principle*. This principle would make the richer nations more responsible than the poorer nations because of their greater ability to pay to reduce emissions.
- i. *Rawlsian principle of justice*. This principle suggests that allocations should be determined such that follow the presumption on just allocations contained in the theories of John Rawls that in no case should the poorest nations be made worse off by any allocation scheme. Furthermore, some argue that it argues that just allocation schemes should give maximum rights to use the atmosphere to the poorest, least advantaged people. (Brown et al, 2006, Brown, 2002; Rose, 1998)

As so we see that there are a variety of operational definitions for "equity" under the UNFCCC that have been proposed. Yet not all proposals defining "equity" under UNFCCC, including some of the above, are entitled to respect as a matter of ethics and justice. (See future ClimateEthics.org posts). In fact, some proposals that have been offered to operationalize "equity" under the UNFCCC seem to be based upon national interest undiminished by global responsibility.

To adequately address issues of equity in allocating GHG targets among nations, proponents of allocations proposals should be guided by principles of distributive justice. Traditional distributive justice demands that benefits and burdens of public policy be distributed according to concepts of equality, modified only by morally relevant considerations of, for example, need or merit.

Distributive justice does not always require completely equal distributions, yet distributive justice puts the burden on those who want to be treated differently from others to show that the basis for being treated differently is based on morally relevant criteria. For this reason, as a matter of distributive justice, those who propose a formula for defining equity that is not based upon giving all people equal rights to use the atmosphere have the burden of demonstrating that differences in treatment are based on merit, deservedness, or other morally relevant criteria.

One distinction that distributive justice would acknowledge as a relevant basis for treating nations differently in GHG emissions allocations is differences in responsibility for causing the existing problem. Therefore, the "polluter-pays" principle is consistent with principles of distributive justice because polluters deserve to have greater responsibilities for the problems they cause. In fact, as we have seen, this is a matter of international law.

It need to be emphasized that the lack of consensus of what equity means under the UNFCCC does not mean that any proposed operational definition of "equity" is entitled to respect as a matter of morality. Yet, some commentators have urged that because of differences among parties of what equity requires should be resolved by bargaining and negotiation. As a matter of justice, this is the wrong way to proceed. The better way to proceed is to first make proponents of various definitions of equity demonstrate how their criteria for equity comports with acceptable moral principles as well as the above well established international law norms such as the "polluter pays" principle. Only those definitions that survive this ethical analysis should be the subject of ethical compromise.

Nevertheless, because there may be remaining legitimate differences in what justice requires under the UNFCCC even after bogus equitable justifications are eliminated through ethical analysis, an urgently needed global solution to climate change may need to consider several competing claims about what justice requires and therefore compromise among ethically supportable positions may be justified. Yet all proponents of climate change frameworks that do not base future rights to atmosphere on equal per capita shares have the burden of demonstrating why other moral considerations are entitled to respect and all post-Kyoto frameworks should justify the equitable criteria on which they are based.

It is beyond the scope of this post to look at specific proposals for operationalizing the "equity" requirement under the UNFCCC. This will be the subject of upcoming ClimateEthics.org posts.

Yet equity and justice demand that all proposals for post-Kyoto regimes under the UNFCCC demonstrate why they are just.

In summery, the second minimum ethical criteria that must be met by all second commitment proposals is the requirement that all proposals must be consistent with "equity" and "justice."

All proposed second commitment period frameworks may not be able to comport with all requirements of distributive justice because allocations that are completely responsive to all the mandates of distributive justice many not be technically feasible during the second commitment period. Yet, no second commitment period allocation scheme is ethically supportable unless it establishes not only an emissions reductions pathway that will avoid dangerous climate change but also a pathway that will ultimately be comprised of just allocations among nations.

By:

Donald A. Brown
Associate Professor, Environmental Ethics, Science, and Law
Program on Science, Technology, and Society
401 Old Botany
Penn State University
University Park, Pa. 18602
717-802-1009
dab57@psu.edu

References:

Agarwal, Anil, and Sunita Narain. 1991. *Global Warming in an Unequal World: A Case of Environmental Colonialism*. New Delhi: Centre for Science and Environment.

Baer and Athansiou, *Honesty About Dangerous Climate Change, Ecoequity*,
http://www.ecoequity.org/ceo/ceo_8_2.htm .

Brown, Donald, Nancy Tuana. Marilyn Averill, Paul Bear, Rubens Born, Carlos Eduardo Lessa Brandão, Marco Túlio S. Cabral, Robert Frodeman, Christiaan Hogenhuis, Thomas Heyd, John Lemons, Robert McKinstry, Mark Lutes, Benito Meuller, José Domingos Gonzalez Miguez, Mohan Munasinghe, Maria Silvia Muylaert de Araujo, Carlos Nobre, Konrad Ott, Jouni Paavola, Christiano Pires de Campos, Luiz Pinguelli Rosa, Jon Rosales, Adam Rose, Edward Wells, Laura Westra. (2006), *White Paper on the Ethical Dimensions of Climate Cchange*, The Collaborative Program on the Ethical Dimensions of Climate Change, Rock Ethics Institute, Penn State University, <http://rockethics.psu.edu/climate/whitepaper/whitepaper-intro.shtml>

Brown, Donald. 2002. *American Heat: Ethical Problems with the United States' Response to Global Warming*. Lanham, Md.: Rowman & Littlefield.

Estrada-Oyuela, Raul A. 2002. *Equity and Climate Change*. In *Ethics, Equity and International Negotiations on Climate Change*, edited by P.-R. Luiz and M. Mohan. Cheltenham, UK:: Edward Elgar.

Hansen, James, Makiko Sato, Pushker Karechka, David Beerling, Valerie Masson-Delmotte, Mark Pagonni, Maureen Raymo, Dana Raymo, James Zachos, *Target CO2: Where Should Humanity Aim?* http://www.columbia.edu/~jeh1/2008/TargetCO2_20080407.pdf

Müller, Benito. 2001. *Fair Compromise in a Morally Complex World: The Allocation of Greenhouse Gas Emission Permits between Industrialised and Developing Countries*. In *Equity and Global Climate Change*. Washington, D.C.: Pew.

———. 2002. *Equity in Climate Change: The Great Divide*. Oxford: Oxford Institute for Energy Studies.

Rose, Adam. 1998. *Burden-Sharing and Climate Change Policy Beyond Kyoto: Implications for Developing Countries*. *Environment and Development Economics* 3:352-58.

Shue, Henry. 1994. *After You: May Action by the Rich Be Contingent Upon Action by the Poor?* *Indiana Journal of Global Legal Studies* 1:343-66.

United Kingdom, 2006, *Avoiding Dangerous Climate Change*, <http://www.defra.gov.uk/environment/climatechange/research/dangerous-cc/index.htm>

UN, United Nations. 1992a *The Rio Declaration on Environment and Development: UN Document A/CONF.151/26*.

———. 1992.b *United Nations Framework Convention on Climate Change: UN Document A:AC.237/18.2,3*.

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I have just written an editorial for our web-site at www.save-our-world.net which complements your laudable arguments here, in poclaiming the necessity to 'Take climate action tp a deeper level' of motivational, priority and value change. I would like to be able to find a way of linking our two approaches, perhaps as book chapters or electronic threads. Best wishes from Jim Scott, chairperson, Save our World.

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