An Equity Hurdle in International Climate Negotiations

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After a lengthy stalemate in the United Nations climate negotiations over creation of a comprehensive global climate treaty, active discussion of how to equitably distribute greenhouse gas reductions is now squarely back on the table. While one cannot imagine a successful international treaty to limit dangerous levels of greenhouse gases that did not satisfy at least a general notion of fairness, much work will be needed to overcome the serious divisions that now exist among different parties on how to best allocate this critical global responsibility. This is particularly true in the current political climate in some countries, such as in the United States, where the political climate makes it difficult to discuss more ambitious goals for reducing greenhouse gas emissions.

This article will briefly summarize the history of the discussion of equity in the U.N. climate negotiations and will highlight a problem that many analysts working on this issue today may not recognize as a potential hurdle to the agreement of the United States to a new climate treaty. The issue I will highlight is especially a problem for any treaty that includes a notion of equity that conceives of the atmosphere as a global commons in which individuals, groups, or nations may claim shares. This approach does not mesh well with the legal and regulatory framework of the United States, which is more capable of controlling greenhouse gas pollution to ensure public safety and health but less capable of distributing shares in a putative commons.

Differentiating Responsibilities

The global community has been working for the past twenty years to develop a comprehensive treaty to reduce greenhouse gas emissions to safe levels. The first climate treaty was proposed in 1992 at the Rio Earth Summit in Brazil. It lead to the creation of the U.N. Framework Convention on Climate Change (UNFCCC), which was ratified by 194 parties, including the United States, and which took effect in 1994.

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Although it represented a landmark piece of diplomacy at the time, the framework convention itself called only for voluntary reductions in greenhouse gases. As a result, most parties to the convention considered it to be inadequate. Since that time, the UNFCCC has been struggling to create a treaty binding the largest greenhouse gas emitters in both the developed and in the developing world. Altogether, 18 countries in the world are responsible for 80 percent of global emissions (E.U. Climate Expert Group 2008). Only a treaty that includes all or most of them has a chance of achieving the emissions reductions necessary to keep global warming within levels to which we could feasibly adapt. The chief sticking point is finding the right balance of responsibilities among developed and developing countries in this group. Who will reduce their emissions, how fast, and by what amount to achieve a predetermined level of climate stabilization?
The only guidance provided by the original treaty is that the assembled parties have “common but differentiated responsibilities and respective capabilities” to reduce their emissions, or, as it has come to be known, “CBDR.” In essence, two criteria have come to mark what differentiates the responsibilities of different countries: (1) their historical emissions and (2) their development needs. Historical emissions matter because the main anthropogenic greenhouse gas – CO\textsubscript{2} – continues to force increases in temperatures for hundreds and sometimes thousands of years, depending on the source. The almost one degree Celsius of global warming humans have caused so far is due largely to the emissions produced by today’s developed world. In addition, development needs matter when it comes to assigning mitigation targets. The crushing poverty still experienced in many parts of the developing world is a reason to accept a slower transition from dirtier carbon-intensive fuels, which still tend to be cheaper, to cleaner fuels. Combining the two ideas, the conclusion is that developed countries should make deeper cuts in their emissions first, followed by cuts from developing countries. This crude formulation has effectively served over the past twenty years as a functional definition of climate equity, or as an appropriate baseline to measure who should cut their emissions the most and to what level of stringency those parties making cuts should be bound. Those who embrace CBDR in its most extreme form say it implies that only developed countries should cut their emissions, and those and only those cuts should be legally binding in an international regime. Developing countries, no matter what their emissions growth profile, should, at most, make voluntary cuts to their emissions, if supported by developed countries.

This formula, if developed into something like a global “polluter pays” principle that places all responsibility for emissions cuts on developed nations, confronts an insuperable physical hurdle. The largest growth occurs now in developing countries, both in terms of emissions and population (see figure 1). The development goals of China or India (the first and third largest emitters at this time) require a lot more production of reliable electricity, and the cheapest way to do that now is still by burning fossil fuels.

For this reason, even if developed countries lowered their greenhouse gas emissions to zero and developing countries proceeded on a “business as usual” (BAU) path, the world would exceed dangerous levels of emissions and dangerous levels of warming. Again though, this isn’t true of all developing countries, but only the major emerging emitter nations such as China, India, Indonesia, South Africa, Brazil, and Mexico. A treaty that could contribute to meaningful global mitigation of
greenhouse gases would have to encourage or mandate equally robust—though certainly not equal—participation in mitigation efforts by the major emitters in both the developed and the developing world. A cooperative effort by all major emitters makes all the difference between a decent chance of achieving some level of climate safety and very little chance at all.

Climate Safety

What counts as “climate safety”? Generally, it is a level of stabilization of human-caused temperature increase to which we could, still with significant effort, adapt. It does not mean absolute safety from the impacts of climate change, since at this point the atmosphere already holds too much CO₂, which will continue to force up the global temperature, even if all emissions were to miraculously stop today.

An approach that would put the entire burden for mitigation on developed countries, or one that never resolves the issues around CBDR, is simply not physically viable as a pathway toward achieving some modicum of climate safety.

Since 2009, when the majority of the parties to the UNFCCC endorsed it at the Copenhagen climate summit, the internationally accepted target has been to stabilize temperature increase caused by humans at 2 degrees Celsius over pre-industrial levels, or 3.6 degrees Fahrenheit. While there have been ample calls for stabilization at lower temperatures, it looks highly unlikely at this point that anything better than the 2°C target is possible, and indeed that target is beginning to look increasingly out of reach (World Bank and Potsdam Institute 2012).

At the G8 summit in July 2009 in L’Aquila, Italy, developed countries affirmed the 2°C target, the consensus view from the Intergovernmental Panel on Climate Change that achieving that target required a global cut in emissions of 50 percent by 2050, and, most importantly, that developed countries should make a cut of 80 percent by 2050 as their fair share of cumulative emission reductions (G8 2009, paragraph 65). This was a notable step forward by these parties, since it represented a bold, though not completely uncontroversial embrace of CBDR, given that it articulated a higher cut in emissions for developed countries. But later that year at the UNFCCC summit in Copenhagen, developing countries, led by China, blocked these same parties from enshrining the 80 percent target in the outcome document that emerged from that meeting (the “Copenhagen Accord”). The most straightforward explanation is that allowing this language in the outcome document would have implied that developing countries would be responsible for whatever emission reductions remained beyond the 80 percent committed to by developed countries in order to achieve the 2°C target.

Since then, the question of how to differentiate the mitigation responsibilities of developed and developing countries under CBDR has remained at a deadlock. Before turning to the current effort to try to work out a new agreement that could overcome this impasse, it is important to see that the difference is vast between a world in which the major emerging economies get a jumpstart on reducing their emissions at a slower pace—but one nonetheless comparable to the pace of developed countries—and a future in which they wait longer to reduce their emissions. An approach that would put the entire burden for mitigation on developed countries, or one that never resolves the issues around CBDR, is simply not physically viable as a pathway toward achieving some modicum of climate safety.

In 2010, the U.S. Environmental Protection Agency (E.P.A.) looked at three possible scenarios for achieving the 2°C target: 1) a BAU scenario; 2) a scenario in which the G8 parties fulfill their pledge to reduce their emissions 80 percent by 2050 below a 2005 baseline and developing countries delay meaningful mitigation efforts until 2050; and 3) a scenario in which the G8 pledge is met and developing countries do more than nothing but less than the G8 parties, namely, they cap their emissions at 2025 levels and achieve 26 percent cuts below their 2005 levels by 2050 (the “full participation” scenario illustrated in Figure 2). If the G8 target is met and developing countries delay action (and maintain emissions in 2050 only at 2050 levels), we will have only an 11 percent chance of holding temperature increase at 2°C. If the G8 target is met and developing countries take on essentially a third of these cuts in twice the amount of time, we would
have a 75 percent chance of stabilizing temperature increase at 2°C.

Although this comparison is encouraging, the language of the framework convention and the dynamics of the climate negotiations to date have not encouraged the full participation scenario described by the E.P.A.

When the framework convention was able to create a binding treaty for emission reductions, the result was the Kyoto Protocol in 1998, which embraced a version of CBDR. Kyoto bound only developed countries (or “Annex 1” parties in the treaty) to reduce their emissions, while developing countries (“non-Annex 1” parties) were asked to enact only voluntary measures, at least through the first commitment period of the treaty out to 2012. For this reason, the United States never ratified Kyoto. In fact, the U.S. Senate never considered ratifying it; instead, it unanimously communicated to the Clinton Administration that it would never ratify a treaty shaped like Kyoto (U.S. Senate 1997). In large part, the objections arose because the treaty assigned different sets of rules to the U.S. and some of our largest economic competitors, in particular, China and India.

This outcome essentially doomed the Kyoto process to never achieving a significant reduction in global emissions. Since the U.S. is the second largest emitter of greenhouse gases, and the largest historical emitter, it’s difficult to imagine a workable international climate regime that does not include the U.S. as a full participant. And, to be sure, the failure of the U.S. to join Kyoto ensured that countries like China and India would refuse considering an evolution of the treaty to one in which they would eventually make binding emission cuts themselves, even at a lower level of ambition than developed countries. Without the inclusion of these parties as participants in the treaty, it simply did not cover a high enough percentage of the world’s emissions to make a dent in global emission levels even if ambition for signatory parties had been significantly increased. By the time the Kyoto Protocol came up for authorization of its second commitment period in 2012, the Annex 1 parties in the agreement comprised only some 15 percent of total global emissions. If those parties agreed to cut all of their greenhouse gas emissions completely, and the rest of the world continued on a BAU path, then achieving climate safety would be impossible.

This is not to say though that the framework convention has not achieved anything since creating the Kyoto Protocol. Staring with the 2009 Copenhagen Accord, a series of “bottom up” agreements emerged, culminating in the 2010 Cancun Agreements, which created the conditions whereby over a hundred countries, responsible for some 80 percent of global emissions, officially registered what they were willing to do unilaterally to reduce their emissions by 2020. Included among these parties are...
all the major emitters in the developed and developing world, including the U.S. as well as all the major developing countries not bound to reduce their emissions under the Kyoto Protocol. Just as importantly, included in these agreements were provisions for measuring, reporting, and verifying these pledges. In addition, there were provisions for the exploration of new mechanisms to promote reducing emissions in the forestry sector, the promotion of new market mechanisms to reduce emissions, and the formation and support of national adaptation plans. Added to all of this was a commitment to raise $30 billion in “fast start” finance for developing countries between 2009 and 2012 to foster a faster transition to low- or zero-carbon growth as well as the creation of a new global institution, the Green Climate Fund, with a mandate to raise the majority of $100 billion annually for mitigation and adaptation in developing countries starting in 2020.

Unfortunately, all of this success does not yet add up to a pathway to climate safety. Unless these voluntary pledges to reduce emissions by 2020 increase by at least a third and perhaps by half, then it will be impossible to eventually stabilize global temperature increase at 2°C (see Light 2013). This will require a larger effort by all parties, which will in turn entail revisiting the meaning of CBDR and the overall question of an equitable distribution of mitigation efforts. If this effort cannot be resolved to the satisfaction of all parties, and in a way that ensures an adequate level of emission reductions by the largest greenhouse gas polluters, then this international process will not be able to meaningfully contribute to achieving climate safety.

**Toward Equity in the Post-2015 Agreement**

There are plenty of good attempts in the philosophical literature to try to estimate the best distribution of global reductions in greenhouse gases, including the work of Stephen Gardiner, Dale Jamieson, Henry Shue, and others (for a sample, see Gardiner et. al. 2010). I will not engage with that literature here. Instead, I want to first describe the context in which debates over equity will play out over the rest of this decade in the actual international climate negotiations and to second examine one overlooked hurdle to their reconciliation that remains unacknowledged in the literature on climate ethics or by those actively engaged in these negotiations.

In 2011, at the UNFCCC’s annual summit, held this time in Durban, South Africa, an effective reset was called and the parties agreed to start a new three year process to create a comprehensive climate agreement by 2015, which would go into force by 2020 or later, to replace the Kyoto Protocol and the Cancun Agreements. While the details of how this agreement came about are both complicated and fascinating (see Light 2011), for the present purposes, one critical part of the negotiation was the language selected in describing this new agreement. Specifically, the aim is to create either a “protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties.” (United Nations 2011a, paragraph 2, emphasis added).

This new treaty track, which is now called the “Ad Hoc Working Group on the Durban Platform for Enhanced Action” (or ADP), may or may not set a specific level of ambition for each party to hit either by 2050 or by some mid-term target. But in stipulating that the outcome should be “applicable to all Parties,” the agreement presupposes that, whatever cuts the parties agree to, the same legal requirements will be common for all. This one caveat offers a compelling opportunity to rethink both CBDR and equity under the framework convention. While it is still assumed that the level of ambition for the parties to reduce their emissions will be differentiated — consistent with a rudimentary interpretation of CBDR — the idea of creating something like the Kyoto Protocol that would bind only developed countries to reduce their emissions is effectively off the table. The U.S. celebrated the inclusion of this one phrase as a major achievement at Durban, and as a step toward creating a treaty with a better chance at Senate ratification (Light 2011).

Nonetheless, this outcome was certainly not uncontroversial. The Indian delegation pushed hard to get references to “equity” included in the final Durban agreement; this was blocked by the United States in fear that it would lock the new treaty into a structure that would duplicate the interpretation of CBDR used in the Kyoto Protocol to create the firewall between the obligations of developed and developing countries. But to resolve these differences, negotiators agreed that workshops on equity would begin alongside the new treaty process to try to bring
the parties closer together on how this notion could function in a treaty that would be applicable to all on the same terms. In this light we can see that in some respects the Kyoto Protocol took an easy way out of this problem by simply avoiding it altogether, at least for the first commitment period of the treaty, by not requiring developing countries to make mandatory emission cuts. But now that option is not available, so the parties have to dig deep and try to come up with an equitable distribution of their mitigation commitments.

This conversation started in May 2012 at an intercessional meeting of the UNFCCC in Bonn, Germany, where a two-day workshop was held on equity in sustainable development. Unfortunately, the old divisions that have haunted these talks quickly re-emerged. I will focus here on only one of the problems.

It was clear at the outset of this process that many parties are attracted to the simplest division of responsibilities, one based solely on historical per-capita equality. While there are many forms of the argument, they tend to look something like this:

1. Start with an assumption that the global commons can only absorb X tons of carbon before reaching unacceptable levels of global temperature increase.

2. Divide X by the global population and allocate an equal amount of emissions for all people on a country-by-country basis.

3. Subtract the amount of emissions that any country has historically contributed (back to an accepted baseline year) from its total allotment.

4. From 2 and 3 assess the amount of future emissions allowable for each country starting now, expressing this figure as positive allowable emissions (here, some forms of this argument would express this amount as an “emission right” or “development right”).

5. If a country has already emitted more than its fair share of CO₂ since the base line year (which is true of the United States in all of these treatments), then it has a “carbon debt” and must either radically reduce its emissions to zero or compensate those countries which have not emitted their fair share of historical greenhouse gases for holding back on the emissions they still have a right to emit.

We can see this reasoning at work in the discussions over equity even prior to the Durban meeting which were pressed again most strongly by India. In a submission to the convention on October 10, 2011, the Indian government put the point this way:

… India believes, [that the reference to “equitable access to sustainable development” in a previous agreement of the convention] takes within its fold an approach premised on an understanding of the atmosphere as a global commons to which all nations must have equitable access. Equitable access, for its part, must derive from the notion that all human beings have an equal entitlement to the global atmospheric space, and that in determining just shares of the remaining atmospheric space, past usage (or over-usage) of the global atmospheric space must be taken into account. For developing countries like India with serious energy poverty and developmental challenges, a climate regime built on principles that do not ensure equity will impose severe limitations on its ability to lift its people out of poverty. It is imperative therefore that the equitable basis on which the climate regime is to be structured first be discussed and fleshed out, and next be used as the optic through which the regime is interpreted and developed (United Nations 2011b, 4).

There are a number of interesting and important ethical claims embedded in this statement, which I will not take up here (but see Broome 2012 for a more general discussion of such issues). However, as one might imagine, the United States, and some other developed countries, have categorically rejected anything like the idea of equal per capita distribution of rights to emit, or development rights described in this way, no matter what arguments could be mustered in their favor.

Concerns about development rights as described here include whether it is fair to penalize people for emissions produced by their ancestors; whether the terms of the distributions proposed in these schemes are defensible against competing accounts; and whether countries will ever agree to sign onto a treaty that effectively demands they cut their emissions to zero or begin paying a global tax to other countries. It is doubtful that signing such an agreement would garner much popular support (at least in the countries
that would have emissions deficits) or that leaders who embrace such an agreement would stay in office for very long.

These concerns raise the ever-present question of how the structure of any international agreement does or does not cohere with a given country’s national circumstances. While I would not endorse a position that national priorities should never bend to collaborative international ambitions, I do think that international negotiations would be better served by a more informed understanding of the hurdles that a proposed agreement would face among the parties we would most want in a comprehensive global climate agreement. Because a global treaty that does not include the U.S. as an active participant is unlikely to be a successful treaty, domestic hurdles in the U.S. are worth noting, and perhaps considering, in the structure of an agreement.

In this context, one common refrain by U.S. participants in international climate talks is that the rule that the Senate must ratify a treaty by a vote of two-thirds of its members makes it incredibly difficult for the U.S. to sign onto any treaty. Given how difficult it is to get anything through the U.S. Senate because of the 60-vote threshold to get over the threat of a filibuster, the idea of getting six additional votes is daunting. More interesting than this problem are the problems that might prevent the executive branch from even trying to lobby the Senate to support a new climate treaty. It is here where we can see a unique hurdle to the sorts of per-capita emissions solutions to the distribution of global mitigation efforts described above.

If the U.S. were to sign onto an international treaty that accepted a notion of greenhouse gases such as that described in the Indian submission, it could potentially dismantle the current basis for regulating these substances at home. At issue is the description of greenhouse gases as the source of a positive right – a resource, if you will – rather than as a pollutant. In the Indian submission greenhouse gases are described in positive terms, such as representing “just shares of the remaining atmospheric space.” But at present, the only basis for regulation of CO₂, for example, is in negative terms as a form of pollution.

The origin of this designation goes back to the 2007 Massachusetts v. E.P.A. decision (549 U.S. 497). There, the Supreme Court ruled in favor of 12 states and several cities that had sued the George W. Bush Administration over its refusal to determine whether CO₂ and other greenhouse gases constituted pollutants under the Clean Air Act. In the 5-4 decision, the court determined that global warming could present a potential threat to these states and cities for various reasons and so the E.P.A. was required to undertake an “endangerment finding” to determine if these substances needed to be regulated to protect the health and safety of Americans. While the Bush Administration never started the process of producing this finding, the new Obama Administration started the process a few months into its first year and announced in December 2009 that these gases did meet the standard of a dangerous pollutant under the Clean Air Act.

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While the Obama Administration was making this executive determination, the U.S. Congress was trying to pass a comprehensive energy and climate bill. Unfortunately, while the House version of this legislation (the “Waxman-Markey” bill) passed, companion legislation in the Senate never even made it to a floor vote. As a result, the determination of greenhouse gases as a pollutant under the Clean Air Act became the basis for a “plan B” by the Obama Administration to join the rest of the world in reducing its emissions. The results have been impressive with E.P.A. regulations passed on the basis of this authority limiting emissions from mobile sources, the completion of a set of rules on regulating emissions from new stationary sources (which is likely to soon be approved and may make it prohibitively costly to ever build another coal-fired power plant in the U.S. again), soon to followed by an attempt to create a rule to regulate emissions from existing stationary sources.

Now, many environmental critics of the administration find these regulations to be insufficient to meet the U.S.’s global responsibility to reduce our emissions given the amount we have historically emitted. And in general this process of emissions reduction by direct regulation is fraught with both legal challenges and regular attempts by Congress to either slow them down or undermine their authority
altogether. But no matter how much one may disagree with these efforts, it is undeniable that the authority to regulate greenhouse gases in the U.S. stems from a description of them as harmful pollution. If the Obama Administration were to embrace a global treaty that instead defined greenhouse gases as the source of a positive right, as suggested in the Indian version of a per-capita understanding of climate equity, then it would undermine its defense so far of its legal authority. The administration would otherwise have to defend a contradictory conception of the same set of substances in two different arenas. This would make it far more likely that an attempt to overturn the basis of these regulations would succeed. Since these regulations have so far helped to lower U.S. emissions to 6.9 percent below 2005 levels, which is getting us closer to our pledge in Copenhagen to lower emissions 17 percent below 2005 levels by 2020, it would not help global climate stabilization efforts to throw a wrench into them now (U.S. E.P.A. 2013).

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Although this consideration is not absolutely defeating for embracing something like a development rights or emissions rights approach to equity in the international climate negotiations, it does at least demonstrate how a new treaty has to grapple with a delicate combination of philosophical and practical considerations that are made all the more difficult by national circumstances. While there may well be an optimal allocation of global reductions in emissions in the abstract, the reality is that a global environmental treaty may not be the best vehicle for carrying that allocation forward, in view of the rule of law in different countries.

Pointing out tensions like these though does not mean that a new equitable, workable, and effective climate treaty is beyond our reach. Over the next few years, as we approach the 2015 Durban deadline, we will see the emergence of several cooperative efforts among state actors and non-governmental organizations to try to produce a more flexible, less abstract notion of climate equity that rethinks CBDR and could be represented in a new treaty (see for example the Climate Justice Dialogue, sponsored by the World Resources Institute and the Mary Robinson Foundation). This process will create ample opportunities for more publicly engaged philosophers and policy experts to have a role in shaping a new international climate regime.

Sources: