

# Climate Change and Global Justice: New Problem, Old Paradigm?

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We are stuck with climate change. Without intending to do so, we have committed ourselves and our descendants to a world that is qualitatively different from the one that gave rise to humanity and all of its creations. The dusk has started to fall, and so the owl of Minerva can spread her wings and fly: we can now begin to seriously reflect on why the global effort to prevent dangerous anthropogenic climate change failed.

One reason why it is difficult to act on climate change is that there are various plausible ways of conceptualizing the problem, each of which finds different resources relevant to its solution, and counts different responses as successes and failures. If the problem is fundamentally one of global governance, then new agreements and institutions are needed. If the problem is market failure, then we need effective carbon taxes or a functional cap and trade system. If the problem primarily reflects a technological failure, then we need a program for clean energy or perhaps geo-engineering. If climate change is just the latest way for the global rich to exploit the global poor, then we need to renew the struggle for global justice. The phenomenon of multiple frames, each of which is plausible, is characteristic of what are called 'wicked problems' that are notoriously difficult for political systems to address successfully.<sup>1</sup>

In what follows, we focus on the conceptualization of climate change as an issue of global justice. While we do not deny that climate change raises fundamental and dramatic issues of justice among peoples as well as generations, our claim is that the language of global justice can obscure the fact that problems provoked by climate change lack some characteristic features of problems of global justice, while possessing others that are not characteristic of such problems. We begin by describing briefly how we got to where we are, go on to show why it is plausible to think of climate change as provoking problems of global justice, point out four respects in which this discourse does not suit the domain of the problem, highlight problems with two key conceptual

elements of most global justice theorizing when applied to climate change, and finally draw some conclusions.

## A brief tale of failure

In 1992, the largest gathering of heads of state ever assembled met at the Rio Earth Summit – technically known as the UN Conference on Environment and Development – and more than 17,000 people attended the alternative NGO forum. This marked the beginning of a truly global environmental movement. The air was heady with optimism. The Rio dream was that the countries of the North and South would join hands to protect the global environment and lift up the world's poor. After nearly two decades of struggle, the dream crashed at the 2009 Copenhagen Climate Change Conference. The hope that the people of the world would solve the problem of climate change through a transformation in global values came to an end.

For the foreseeable future, climate policy will reflect the motley collection of policies and practices adopted by particular countries rather than the outcome of a global deal based on a shared conception of justice. There will be climate relevant policy virtually everywhere, but it will be different in different countries and it will be pursued under different descriptions and with different objectives. Some countries will adopt emissions trading, others carbon taxes and others technology forcing policies. Some countries will alter their energy mix, others their transportation systems and others will focus on buildings. Some countries will do a lot and others will do a little. In some countries there will be a great deal of sub-national variation while other countries will nationalize and even to some extent internationalize their policies. These policies, in different proportions depending on the country, will reflect a mix of self-interest and ethical ideals constructed in different ways by different peoples.

Since the beginning of climate change negotiations, there has been persistent conflict between developed

and developing countries. Developing countries have historically contributed far less to the total atmospheric build-up of greenhouse gases (GHGs) than developed countries, and proportionately their per capita contributions are even lower than their total emissions. Developing countries are represented in the UN by the G77.<sup>2</sup> However, within the G77 there is a broad range of interests. For example, the Alliance of Small Island States is the strongest advocate for binding emissions reductions for developed countries, while the oil-producing states often question the underlying science and oppose any significant action at all. Large countries such as Brazil, China and India typically focus most on issues that they see as affecting their national sovereignty. Such differences notwithstanding, the G77 has consistently displayed remarkable unity in the climate negotiations on two core issues: demanding technology transfer and economic assistance from developed countries and refusing to take on binding commitments for its own members.

From the perspective of countries like Brazil, China and India, global limits on emissions without aggressive, mandatory reductions on the part of developed countries risk locking them into their relatively low per capita emissions, thus hampering their economic growth. These countries fear that developed countries will continue to evade significant reductions in emissions while at the same time pushing for the fulfillment of global targets, thus increasingly condemning them to bear the burden. From their perspective, the developed countries have from the beginning attempted to shift the burden onto them. Without commitments to significant reductions by the US, Brazil, India and China are simply not willing to agree to any targets for themselves.<sup>3</sup>

Copenhagen showed how many and deep are the fissures within the human community on this issue. In the future, international climate negotiations will increasingly resemble the protracted trench warfare of the Doha talks on world trade.<sup>4</sup> Climate diplomacy will continue, but the real action will be elsewhere. Bilateral relationships, such as that between the US and China, will continue to be important, but increasingly concerns about climate change will be subordinated to negotiations over trade, currency, security, and so on.

After 20 years of climate diplomacy, the undeniable fact is that the three main factors that have reduced GHG emissions are not traceable to any feat of global cooperation, but rather in increasing importance are global recession, the collapse of communism, and China's one-child policy.

### Why climate change is often seen as a problem of global justice

Traditional views die hard, and one part of the Rio dream that remains alive is the view that anthropogenic climate

change is fundamentally a problem of justice among states. While this view is not wholly wrong, this model is in some respects misleading. China emits more than the US, the US emits more per capita than China or France, France emits more *in toto* and per capita than Chile, and every country has both high and low emitters. Rather than thinking of climate change as a problem caused by some nations and suffered by others, it is more plausible to think of it as a problem with half a billion or so major contributors dispersed, though unevenly distributed, throughout the globe (Chakravarty et al., 2009).

The view that climate change is at heart a problem of global justice holds out the attendant hope that it can be solved by a deal among states. On this view, an international group of adults, acting as agents of states or other powerful institutions, pursuing national and institutional interests but constrained by considerations of justice, can put the world back together. Indeed, it is their responsibility to do so. Exactly what the deal should or could be is obviously a matter of dispute. But there is widespread agreement on a broadly state-centric view of how the problem can be solved.

Despite its obvious practical failure, this view remains influential. Some academics find it attractive because they think we know what we are talking about when it comes to global justice or rational choice theory. Climate justice is then portrayed as a special case to which these broader theories apply. Such scholars often dismiss collisions with reality as involving questions of 'nonideal' theory, which is not their subject (for a discussion see Valentini, 2012).

For those who suffer from the existing global order, or speak for those who do, the language of global justice provides a kind of 'soft power'. They often speak of climate change as an injustice that rich countries inflict on poor countries. For example, in 2009 in Copenhagen Lumumba Stanislaus-Kaw Di-Aping, the chief negotiator for the G77, compared the Copenhagen Accord to the Holocaust.<sup>5</sup>

Indeed, the vulnerability of poor countries to climate change has been widely recognized in international reports and declarations. The Johannesburg Declaration, issued on the tenth anniversary of the 1992 Rio Earth Summit, declared that 'the adverse effects of climate change are already evident, natural disasters are more frequent and more devastating, and developing countries more vulnerable.'<sup>6</sup>

There is good reason to see climate change as an injustice that rich countries inflict on poor countries. Most of the emitting has occurred in rich countries but most climate-change related suffering is likely to occur in poor countries, which have less technological and financial capacity to respond and indeed already suffer more today from climate variability and extreme events. For example, Honduras suffers more from hurricanes than

Costa Rica, Ethiopia suffers more from drought than the US, and probably no country is more affected by floods than Bangladesh.

In a 'normal' year about one quarter of Bangladesh is inundated by floods. In an 'abnormal' year, things are worse. In 1998, 68 per cent of Bangladesh's land mass was flooded, displacing 30 million people and killing more than 1,000 and this was only one of seven major floods that occurred over a 25-year period. Climate change will make things even worse. By the end of the century global mean sea level rise may be a meter or more (see Rignot et al., 2011). An 80 centimeter sea level rise would put about 20 per cent of Bangladesh permanently under water, creating about 18 million environmental refugees (see Roy, 2009). Climate change will also intensify cyclones, which generally occur about every three years. Saline water will intrude even further inland during storm surges, fouling water supplies and crops, and harming livestock.

In 2008, Bangladesh published a Climate Action Plan.<sup>7</sup> To fully fund the first five years of this plan \$5 billion was required – a figure that is more than half of Bangladesh's 2008 total annual budget. The plan launched with a contribution of about \$125 million from the UK, but aid to Bangladesh has been volatile and has generally been declining in constant dollars and as a percentage of GDP.<sup>8</sup> Bangladesh will not succeed in adapting to climate change without foreign financial aid. It will suffer enormously from climate change, yet its contribution to the problem is miniscule. Its total carbon dioxide emissions are less than 0.2 of 1 per cent of the global total.<sup>9</sup> On a per capita basis, Bangladesh's emissions are about 1/20th of the global average and about 1/50th of US emissions.<sup>10</sup>

It is these sorts of considerations that lend plausibility to the view that anthropogenic climate change is an act of injustice inflicted on the poor countries of the South by the rich countries of the North. Despite the plausibility of this view, some complications become apparent upon reflection. Global climate change fails to display some of the central features of injustices between states, while displaying some novel ones that traditional global justice theories seem ill-equipped to deal with.

#### Four differences between problems caused by climate change and paradigm cases of global injustice

A first difference is that many people (and even some political leaders) in high-emitting countries at least claim ignorance about the effects of GHG emissions. Other nations, on the other hand, admit to the damages and undertake policies to reduce emissions or to aid those who suffer from climate change. But this is weird, if climate change is to be understood on the model of an

injustice between states. In the first case, it is as if one nation unjustly invades another but does not know that it has invaded it; in the second case, it is as if a country seeks to alleviate the harm it causes to another while continuing to cause it as a matter of policy.

A second difference is that paradigm injustices between states involve the intentional infliction of damages, and this is not the case with climate change. Greenhouse gas emissions are a byproduct of a nation's economic and other activities, and climate change damages are a byproduct of these (and other) emissions. Every nation would be happy if their economic and other activities continued, while their attendant emissions ceased. They would also be happy if their emissions occurred but did not cause any damages to anyone or anything anywhere anytime. On the other hand, when it comes to an unjust war, or to the imposition of an unfair trade deal by a state (or group of states) on another state (or group of states), the whole point is to deprive others of what is rightfully theirs. The point of emitting GHGs, on the other hand, is just to become rich and enjoy life.

A third difference is that since the atmosphere does not attend to national boundaries, and a molecule of carbon has the same effect on climate wherever it is emitted, climate change is largely caused by rich people, wherever they live, and suffered by poor people, wherever they live. Thus the people who contribute most to climate change and will suffer the most from it are dispersed throughout all the countries of the world, though in different proportions.

One way of thinking about those who contribute most to climate change is to focus on the 500 million people who emit half of the world's carbon.<sup>11</sup> The shape of the climate change problem would be very different if they (we) did not exist. Who are these people, and where do they live? One way of trying to find them is through the use of a proxy. In 2010 there were a little over 700 million registered cars in the world.<sup>12</sup> Anyone who owns a car is quite likely to be one of the 500 million who emit half the world's carbon. This is not only because of the emissions from their automobile, but also because someone who owns a car is usually able to command relatively large amounts of energy to use for heating, cooling, and various other purposes.

The differences in car ownership between some countries are enormous, while at the same time car ownership is widely distributed over many countries.<sup>13</sup> Car ownership in the US is greater by four orders of magnitude than car ownership in the Central African Republic. China and Russia have more than 17 times as many cars as Ireland and more than all but two EU countries (Germany and Italy). Only six of the top ten countries in automobile ownership are among those countries required to fund the anticlimatic change activities of developing countries

under the Framework Convention on Climate Change; while some of the 24 countries that are required to fund these activities are not among the top 24 countries in car ownership. What this means is that rich people who live in poorer countries such as China and Russia escape obligations that attach to poor people who live in richer countries such as Ireland and Spain.

The fact that the high-emitting 500 million as well as the potential victims of climate change are dispersed around the globe is awkward for those who want to assimilate climate change to a traditional problem of global justice. It is as if an invading army includes citizens from the victimized country, and the aggressor's victims include residents of both countries. Something like this may be true to some extent in some unjust wars. It may also be true that some citizens of poorer countries will collaborate in or benefit from the imposition of an unfair trade deal by a richer country, and that some citizens of the richer country may be made worse off by the imposition of that deal. Even if this is so, it is not nearly to the extent to which it would be true in the case of climate change.<sup>14</sup>

A fourth difference concerns the nature of the risks and attendant temporal urgency that distinguishes climate change from ordinary problems of global justice. Most cases of global injustice involve one nation benefiting at the expense of another, and this can go on more or less indefinitely. However, the current level of GHG emissions by affluent people cannot go on indefinitely. While there is a sense in which justice delayed is justice denied, in the usual case justice can be denied for decades or centuries and then triumph (think of racism, sexism, and discrimination against homosexuals). The excessive emission of GHGs, on the other hand, threatens to undermine the conditions that make modern life possible even for the rich themselves. Of course, in a world populated by weapons of mass destruction a global injustice can also threaten the entire global system, but this possibility is remote compared to the possibility that GHG emissions will lead to global catastrophe. It is important to be clear. The point is not that nuclear holocaust is less likely than catastrophic climate change, but rather that an ordinary case of global injustice is less likely to catastrophically damage both the perpetrator and the victim than is the case with climate change. Moreover, while military disasters are still, in an important sense, wholly in our hands, climate-related catastrophe is not. Climate change involves a novel actor – the ensemble of natural systems we customarily call ‘nature’ – that is frequently ignored even by theorists of global justice, who often align themselves with those who think that nature provides a ‘free lunch’. In this case, however, there is no free lunch: nature will collect the bill. Guests can languidly negotiate their respective shares of the check before the restaurant owner arrives at their table,

but there is little negotiating to do when the owner arrives demanding payment.

### Climate change and equality

Many of the most influential theories of global distributive justice embrace some notion of equality as an intrinsic or an instrumental value to be realized, or at least as a regulatory ideal to be approximated. They typically endorse redistributive or compensatory principles that may level down the wellbeing of the rich somewhat, as part of a more general project of leveling up the wellbeing of the poor. The facts of climate change cast such principles in a somewhat different light.

Call ‘geo-power’ mankind’s (technologically mediated) capacity to impact and alter the ecological systems of our planet, including climate.<sup>15</sup> The exercise of geo-power is causally and spatiotemporally fragmented: every human being impacts climate to some extent, just by living wherever and whichever way he or she does. The global rich have always exercised much more geo-power than the global poor, and their production and consumption patterns have more intense and extensive impacts on climate than those of the poor. In fact, the poor suffer the geo-power of the rich: they have done little to cause global ecological degradation, particularly climate change, but are extremely vulnerable to its effects.

From a climatic perspective, the sensible way of rectifying geo-power asymmetries between the rich and the poor is by leveling down *only*, not by giving more geo-power to the poor. Insofar as people becoming rich and enjoying life leads to an increase in their geo-power, theories of global justice with egalitarian leanings face the following problem. They can hardly commit to no leveling up since their primary goal is to lift the global poor closer to the status of the global rich. Yet in order to minimize climate-related disruptions, the geo-power connected to the production and consumption patterns of everyone should be minimized.

Obviously, what is desirable is that everyone becomes as well-off as possible – not that everyone becomes as poor as the global poor – but that they do so in a way that minimizes overall geo-power. This is one way to characterize the spirit behind what is customarily called ‘sustainable development’.

A ‘green revolution’ in global production and consumption patterns has often been invoked as a way to dissolve the wellbeing/geo-power trade-off. The way seems obvious in the abstract, but is quite uneasy in practice. It requires reformed mechanisms of global governance, major retooling in many key industries, significant market restructuring (including financial markets, particularly those brokering basic natural resources, food and energy supplies), novel styles of policy design, new means of knowledge and information transmission, and revised

styles of consumer, citizen and private behavior. Theorists of global justice have traditionally focused on possible global governance reforms, but have said relatively little about the other steps mentioned above. If climate change is going to be taken on board by egalitarian theorists of global justice, they must go far beyond the enunciation of ideal principles, the individuation of responsibilities, and the modeling of global governance reforms. They must turn to the articulation of all-round, multi-scale, multi-dimensional theories of sustainable development. Once climate change comes into the picture, it becomes an open question whether global justice theorizing (particularly in its distributive incarnation, and especially when inspired by egalitarian values) can still retain an independent conceptual identity, or whether it must be absorbed as a (very important) sub-theme of theorizing about sustainable development.

### Climate change and human rights

Some theories of global justice (including some with egalitarian leanings) take the value of human rights as their conceptual foundation, and their defense as a political objective. Human rights are seen as commanding a basic level of protection from which a progressive institutionalization of the values of justice can proceed – presumably in the economic, social and environmental realm alike. The distinctive force of human rights is that they are born and understood as moral rights (the right not to be harmed, for instance), which can be articulated and institutionalized as political and legal norms.

Some theorists of global justice would claim that protecting the global poor and future generations from the harmful effects of climate change is a matter of protecting their human rights – that is, something we owe to them on grounds of their very humanity.<sup>16</sup> Of course, this presupposes both that the notion of human rights and the nature of our duties to the global poor and future generations are clear enough, which they are not. But if we assume that they are, then we must still individuate the rights and duties that can be upgraded from moral to political and legal norms, and identify the extent to which this can be done when considering climate change specifically.

It is obvious that some of the negative effects of climate change (extreme weather events, spreading epidemics, food and water shortages, etc.) will have significant negative impacts on human survival and health. The battle against anthropogenic climate change could then comfortably be conceptualized as a battle for the fulfillment of a rather minimal, and widely accepted, human right – the right to a healthy survival.<sup>17</sup>

But there are problems with this. First, human health can be defended and promoted through increases in economic growth.<sup>18</sup> But if such increases depend on increases

in GHG emissions and geo-power more generally, as they do today, then defending and promoting human health can have negative reverberations on climate.<sup>19</sup>

Second, some among the effects of climate change will diminish the stocks of, and access to, fundamental resources such as food, water, and various transformable elements of biodiversity useful to medical research. This will pose difficulties to global justice thinkers who maintain that access to such basic resources is a human right. The idea that in a warmer world eight or nine billion people may have rights to various natural resources whose availability is scarcer and scarcer is, for one thing, a practically hard one to realize. But it may even be paradoxical from a theoretical standpoint, in so far as the obligation to fulfill one person's right to scarce resources may, in many cases, reveal itself as the obligation to sabotage the right of another person to such resources.<sup>20</sup> This is particularly clear in an intergenerational perspective, the adoption of which is inevitable when considering climate change.

The alternative, of course, is to re-conceptualize human rights: from absolute to relative, 'indexed' to the quantity and quality of available resources. But this will entail a profound change in our understanding of such rights: they will become goals to realize as far as possible, rather than bastions to defend on a general principle.<sup>21</sup> That will not necessarily make them any less important, but it will chisel them in the complex and dynamic reality in which they must be promoted today. As the Earth's average surface temperatures rise, human rights-based theories of global justice will have to adjust to the change.

### Conclusions

Our objective in this paper was not to deny that climate change poses questions of justice among peoples and generations. Our point rather is that to superimpose canonical theories of global justice theories onto a phenomenon whose causal, spatiotemporal and strategic characteristics are unique and unprecedented may turn out to be both theoretically and practically misleading.

The problems that climate change presents stray from the traditional paradigm of global justice. A nation emitting a large quantity of GHGs is not, in several important respects, like one nation unjustly invading or imposing an unfair trade deal on another. The nation state is not a particularly good vehicle for collecting high GHGs emitters, or even perhaps potential victims of climate change. Given the geo-power/wellbeing trade-off, egalitarian theories of global justice confronted with anthropogenic climate change must either accept an unpalatable commitment to leveling socioeconomic asymmetries down, or be transformed into articulated, multiscale, multidimensional theories of sustainable development. Theories of global justice that rely on the

notion of human rights as their conceptual cornerstone must reckon with the fact that the very nature of such rights might have to be significantly re-conceptualized in a hotter, overpopulated world in which defending the rights of some people or generations will mean hindering those of others.

Our claims are contentious and simplify complex issues. No doubt sophisticated arguments can be provided that would soften their impact, or perhaps overturn them altogether. The main objective of this paper is to prompt such sophisticated responses, thus paying respect to the peculiarity of the unprecedented phenomenon that is anthropogenic climate change, while making progress in the ways that we think about global justice.

## Notes

1. Generally on framing and climate change see Hulme, 2009. For more on wicked problems visit: <http://eureka.sbs.ox.ac.uk/66/1/TheWrongTrousers.pdf> [Accessed 1 November 2013].
2. The G77 was founded in 1964 to further the economic aims of developing countries. China coordinates its climate change policy with the G77 but is a 'special invitee' rather than a member.
3. Indeed, it appears that the Chinese pledged to cut more emissions than the US under the Copenhagen Accord. However, it is difficult to say how much of the pledged emissions reductions represent actual departures from business as usual, since China has independently embarked on a plan of significant energy-intensity reduction in recent years.
4. The Doha Round has been in progress since 2001 and has been stalled since 2008.
5. Available from: [http://www.youtube.com/watch?v=s0\\_zwZw0fOU](http://www.youtube.com/watch?v=s0_zwZw0fOU) [Accessed 1 November 2013].
6. Available from: <http://www.unescap.org/esd/environment/rio20/pages/Download/Johannesburgdeclaration.pdf> [Accessed 19 September 2013].
7. See the Bangladesh Climate Change Strategy and Action Plan 2008, available from: <http://www.sdnbd.org/moef.pdf> [Accessed 1 November 2013].
8. Available from: <http://www.indexmundi.com/facts/bangladesh/net-official-development-assistance-received> [Accessed 1 November 2013].
9. See <http://co2now.org/Know-GHGs/Emissions/> [Accessed 1 November 2013].
10. This is calculated from World Bank data. Available from: <http://data.worldbank.org/indicator/EN.ATM.CO2E.PC/countries/BD-8S-US?display=graph> [Accessed 19 September 2013].
11. This is the approach taken by Chakravarty et al., 2009.
12. There is probably a fewer number of car owners, since some people own more than one car. We have rounded off numbers supplied by Ward's Automotive Group that can be accessed from [http://wardsauto.com/ar/world\\_vehicle\\_population\\_110815](http://wardsauto.com/ar/world_vehicle_population_110815) [Accessed 1 November 2013]. The numbers are obviously increasing rapidly.
13. The claims in this paragraph are computed from data found on these two websites: <http://www.quandl.com/society/passenger-vehicles-all-countries>; <http://data.worldbank.org/indicator/IS.VEH.PCAR.P3/countries/1W?display=default> [Accessed 18 September 2013].
14. Gardiner (2011) thinks there's more to the analogy between war and carbon emitting than we do. Shue (1980) and Pogge (2002) provide materials for supposing that states can act unjustly with respect to other states short of war by violating negative duties not to harm. There is also a growing literature on complex forms of injustice (see, Young, 2013) that bears on these questions.
15. For a more detailed discussion of the notion of geo-power see Di Paola, M. 'Virtues for the Anthropocene', forthcoming with *Environmental Values*, 2014.
16. See for instance Caney, 2010. For more discussion of Caney's position see Jamieson, 2014, pp. 294–300.
17. The intergenerational case is the hardest. See essays in Gosseries and Meyer, 2009.
18. See Simon Caney's 'Realizing Human Rights in a Finite World'. Available at: [www.birmingham.ac.uk/schools/government-society/departments/political-science-international-studies/News/2013/11/Tolstoys-question.aspx](http://www.birmingham.ac.uk/schools/government-society/departments/political-science-international-studies/News/2013/11/Tolstoys-question.aspx). [Accessed 18 November 2013]. (unpublished).
19. A further, thorny question that we ignore here is just whose obligation that would be: of individuals, states, businesses, global institutions, none of the above, or all of the above? There is a vertiginously vast amount of literature on this topic: recent contributions include, among others, Cripps (2013); Moellendorf (2014); Di Paola (2013); Jamieson (2014).
20. Indeed this is exactly the view of some human rights theorists, see Nickel (2007) for example.

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