

The Struggle for Climate Justice in a Non-Ideal World

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Climate change poses a serious challenge to humanity. In its Fifth Assessment Report the Intergovernmental Panel of Climate Change (IPCC) records that

“To limit the warming caused by anthropogenic CO<sub>2</sub> emissions alone to be *likely* less than 2°C relative to the period 1861-1880, total CO<sub>2</sub> emissions from all anthropogenic sources would need to be limited to a cumulative budget of about 1000 PgC since that period. About half [445 to 585 PgC] of this budget was already emitted by 2011” (Collins and Knutti 2013, p.1033).

Humanity could emit a trillion tonnes of carbon if it wished to have a 50% chance of avoiding a 2°C increase in global mean temperatures, and it has emitted half of that already (Allen et al 2009; Meinshausen et al 2009). At the current rate of emissions, we are set to emit the remaining half trillion within 22 years.<sup>2</sup>

This constitutes a major challenge. However, as the IPCC adds, the problem is actually more serious than this since these calculations exclude various important considerations (such as other greenhouse gases and the possibility of further emissions released as a result of warming), and we may want to have a lower probability of overshooting the 2°C target. As it writes,

“[a]ccounting for projected warming effect of non-CO<sub>2</sub> forcing, a possible release of GHGs from permafrost or methane hydrates, or requiring a higher likelihood of temperatures remaining below 2°C, all imply a lower budget” (Collins and Knutti 2013, p.1033).

To this we should add that many would say that the 2°C target is too high. There will be considerable harms below that level, and note that since it is defined in terms of a global mean it can tolerate increases much higher than 2°C (Warren 2006). Indeed in the Paris Agreement that was agreed in December 2015, a lower target was also included. Article 2.1(a) of the Paris Agreement specifies the goal as

“Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change”.<sup>3</sup>

The challenges were less stark back in 1990 when the first Assessment Report emerged. However, in the period from 1990 till the time of writing, emissions have continued to increase. The IPCC records that “[t]he global 2010 emissions are 31% above the 1990 emissions” (referring to CO<sub>2</sub> equivalent emissions) (Edenhofer et al 2014, p.54). Some of this increase stems from those in developing countries who, faced with severe poverty, have sought to develop and raise themselves out of poverty. However, the same cannot be said of the opulent lifestyles of others who have emitted high levels of greenhouse gases even though it is not needed for a decent standard of living.

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<sup>1</sup> I am grateful to the Oxford Martin School for funding which enabled me to work on this paper.

<sup>2</sup> See <http://trillionthtonne.org/>.

<sup>3</sup> For the Paris Agreement see <http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf>.

On many accounts of justice, agents (including governments, politicians more generally, international institutions, firms, members of civil society organizations, and individuals) have not complied with their responsibilities. Furthermore, if we look ahead to the future, we have little reason to think that there will be high levels of compliance in the future. The Paris Agreement, for example, did not specify an allocation of responsibilities, leaving each party to “prepare, communicate and maintain successive nationally determined contributions that it intends to achieve” (Article 4.2.).<sup>4</sup>

### I: Two Challenges

This raises at least two questions. The first question refers to people’s responsibilities. Accounts of climate justice ascribe a set of responsibilities. However, since there has been widespread noncompliance and the indications are that this is not going to stop, we face the question:

Q1: What should agents do when others do not discharge their climate responsibilities?

Should agents take on extra climate responsibilities when others fail to comply? Or are they released from those that would otherwise bind them when others fail to cooperate? Or, are their responsibilities affected in another way? Let us call this the *Responsibility Question*.

The fact of noncompliance raises another question. We might ask about the governance process. There have been ongoing negotiations at the international level since the creation of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992, with little progress being made over that quarter of a century. In light of this, many have asked whether the existing decision-making process (one that seeks to secure agreement from the 197 states that have ratified the UNFCCC) should be reformed.<sup>5</sup> The same could be said about the political process within states. Some argue that existing democratic institutions cannot cope with climate change.<sup>6</sup> We thus face a second question:

Q2: Given the lack of progress in combating climate change, should existing governance structures be maintained or changed (and if they should be changed, in what ways)?

For example, should the international negotiating process be abandoned, or radically changed? Instead of seeking multilateral agreement should we tolerate a less inclusive decision-making process if that is more effective? At the national level, should states adopt a similarly more authoritarian approach? Let us call this the *Governance Question*.

Now the two questions are, of course, related. One of the responsibilities referred to in (Q1) might be to engage in political action, and so this requires reflecting on what the decision-making process should be (Q2). This notwithstanding, the two questions are distinct. First, as we shall see, there are many different kinds of climate responsibilities that are *not* focused on institutional design. Second, whilst the first question might emphasize a responsibility to take some kind of political action we do not know what that action should be (and what kind of institutional structure we should be aiming for) without knowing the answer to the second question. The two questions, thus, complement each other.

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<sup>4</sup> <https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf>.

<sup>5</sup> [http://unfccc.int/essential\\_background/convention/items/6036.php](http://unfccc.int/essential_background/convention/items/6036.php).

<sup>6</sup> See, for example, the views discussed in Stehr (2015, pp.449-450).

Both questions are questions concerning nonideal political theory (in the sense given to that term by Rawls (1999 pp.8 & 216)). Much has been written on ideal and nonideal political theory in the recent decade. This has shed considerable light on concepts like feasibility and on the relationship between ideal and nonideal theory.<sup>7</sup> The analysis has focused on the issues in general and abstract terms. My aim in this paper is to examine what a nonideal account of climate justice should look like. I shall focus primarily on the *Responsibility Question* (Sections II-VI) but will also conclude with a brief discussion of the *Governance Question* (Section VII).

## II: Identifying the Options

To answer the *Responsibility Question* I advance three principles. In each case I first present a general version of that principle (one designed to hold whenever there is noncompliance) and then follow up with a specific version (one tailored to the specific case of climate change). Drawing on these, I argue that it is a mistake to think that there is any one uniquely correct way for agents to respond to noncompliance: it depends heavily on specific features about that agent. There is no such thing as *the right response* to non-compliance. I then, however, give some illustrative examples of the kinds of things that some common kinds of agents could reasonably be expected to do.

The first principle is this:

Principle 1<sub>general version</sub>. When some fail to comply with their climate responsibilities, a nonideal theory of climate justice must specify all the responses available to agents (hereafter Principle 1<sub>gv</sub>).

Given noncompliance, it is inescapable that there will be a shortfall of justice. This is a logical corollary of the fact that a theory of justice, assuming full compliance, allocates responsibilities in such a way that (a) others receive the protection that they are entitled to [*just protection*], (b) the duty-bearers are required to do no more than is needed to ensure (a) [*just total burden*], and (c), the burdens are shared justly among duty-bearers [*just burden-sharing*]. The duties are specified such that if everyone does what they ought to do then others will receive what they ought to receive. Now, given this, if some do not honour their duties then it follows – necessarily - that there will be a shortfall. Some may have less than they are entitled to [so not *just protection*]. Or others may be required to do more than they would otherwise be expected to [not *just burden-sharing*]. The question then is: Where should the shortfall lie? And to answer this we need to have a comprehensive account of what the options are. This takes us to Principle 1<sub>gv</sub> above. We must have a clear account of the action-space available.

What does this mean in the case of climate change? I have argued elsewhere that there are six options available. These are as follows:

[i] *Target Modification*: One response in the light of noncompliance is to aim for a less ambitious target. Thus at the moment the UNFCCC is committed to the goal mentioned above – “well below 2°C” - and it has pledged to pursue “efforts to limit the temperature increase to 1.5°C”. In the light of noncompliance some might propose settling for a less demanding target.

[ii] *Responsibility Reallocation*: A second response when some fail to discharge their responsibilities is for others to pick up extra responsibilities to make up for the shortfall. If a

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<sup>7</sup> There is now an expansive literature on ideal and non-ideal theory. My views on ideal theory are close to those defended by Estlund (2008, chapter XIV); Gilibert (2012, chapters 4 & 7); Stemplowska (2008); and Swift (2008).

colleague fails to mark her share of exam scripts, then maybe I should mark hers in addition to mine. In the case of climate change, if some do not reduce their emissions then maybe others should engage in additional mitigation.

[iii] *Burden-Shifting I*: A third response is what I call burden-shifting. Some policies to mitigate and adapt to climate change impose unjustified burdens on third parties. For example, using hydroelectric power might involve displacing indigenous peoples; using nuclear energy might pose health risks; taxing energy use might result in fuel poverty. Ordinarily, agents should discharge their duties to mitigate in such a way that they do not impose such unjustified burdens on third parties. However, in the face of noncompliance, and with a view to increasing compliance, one might argue that it would be better for agents to mitigate with the harmful side-effects than not to mitigate at all.

[iv] *Burden-Shifting II*: A fourth option is a variant on this. This fourth response is to allow victims of climate change to take steps that impose burdens on the noncompliers. In doing so they act in ways that would otherwise be impermissible, but is permissible in this instance because the other has failed to discharge their duty.

[v] *Compromising other Moral Ideals*: Thus far the responses have focused on justice. For many, an ideal climate policy would require those engaging in mitigation and adaptation to honour moral ideals that go beyond the duties of justice (such as, for example, respecting the value of the natural world). In light of this, a fifth response to noncompliance is to weaken these moral obligations and permit people to do things (such as create hydroelectric power through flooding a place of great intrinsic value) that would otherwise not be permitted.

[vi] *Changing the Incentive Structure*: This leaves one further response to noncompliance. This is to act – in a proactive way – to discourage future noncompliance.<sup>8</sup> This can take the form of creating and maintaining new institutions or regulatory frameworks that will impose reduce emissions. Or it might involve subsidising clean technology to induce consumers and firms to switch away from fossil fuels. Or it might involve campaigning against subsidies to fossil fuel companies (Caney 2014a).

These represent, I believe, the options available to agents. Given this, we can now formulate the specific version of the first claim. It should be stated as follows:

Principle 1<sub>specific version</sub>. When some fail to comply with their climate responsibilities, a nonideal theory of climate justice must select from the following responses that are available to agents: (i) Target Modification, (ii) Responsibility Reallocation, (iii) Burden-Shifting I, (iv) Burden Shifting II, (v) Compromising Moral Ideals, and (6) Changing the Incentive Structure (hereafter Principle 1<sub>sv</sub>).

### III: A Guiding Normative Theory

§1. Suppose that an agent has this taxonomy in front of her. This is clearly insufficient to guide her for it contains no ethical guidance. This leads to my second claim:

Principle 2<sub>general version</sub>: Any nonideal theory of climate justice must draw on an *integrationist normative theory* (hereafter Principle 2<sub>gv</sub>).

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<sup>8</sup> I have outlined these options in much greater detail elsewhere. See Caney (2016).

Principle 2<sub>gv</sub> contains within it two commitments. It claims, first, that when an agent considers what she ought to do in a nonideal context she should draw on a *normative theory*. Second, it claims that the theory must be what I have termed an *integrationist* one.

To take the first point first: an agent considering her course of action needs some way to evaluate the costs of competing options and some non-arbitrary way of determining trade-offs. Note, this does not mean relying on some vision of the perfect society and trying to read off from that what should be done. It does, though, require drawing on a normative theory. We have to have some basis for comparing different courses of action, and I see no way of doing that – and doing it responsibly – other than drawing on a normative theory, with its core guiding values and commitments.<sup>9</sup> For a Rawlsian, for example, this would involve not just considered moral judgements and principles, but also general background theories (Rawls 1999, pp.42-45; Daniels 1996, chapter 1 & 2).

To apply this to the case at hand, an agent faced with noncompliance needs to consider whether she should, for example, take on greater responsibilities or whether the appropriate response is to reduce the level of protection owed to the vulnerable. To do this she has to consider what best fulfills the underlying normative ideals. If, for example, she is a Bangladeshi villager it will be implausible to say that she should reduce her emissions. If, however, she is a wealthy US citizen then further reducing her emissions might be the right course of action.

§2. I turn now to the second commitment. I need now to explain what I mean by an integrationist theory. I define an integrationist approach as one that considers a given issue, *X*, (say, climate change) in conjunction with other issues (like poverty, development, health, migration, other environmental issues such as ozone layer depletion and ocean acidification) and treats them both as part of a more general normative theory. An Integrationist approach can be contrasted with an Isolationist one, where the latter treats a given issue, *X*, in isolation from all other issues, and creates a theory focused specifically and exclusively on *X* on its own (Caney 2012). An integrationist theory thus uses a *wide* scope and includes other issues together, whereas an isolationist theory uses a *narrow* scope and brackets out other issues.

Why is an integrationist approach required for nonideal theory? In response: the central reason is that climate change and the policies needed to combat climate change are inextricably interconnected with a series of other issues (such as development, trade, migration, other environmental issues, cultural rights) such that to evaluate which of the six responses delineated above to adopt requires one to evaluate the effects of each on a wide set of persons' interests. Adopting a narrow scope here is not a plausible option for both climatic changes and climate policies affect a large range of persons' interests, usually influencing the same interests.

Consider, for example, the third response to noncompliance that I identified – *Burden Shifting I*. The thought here is that in the face of noncompliance one might permit agents to engage in mitigation (and adaptation) policies that impose harms on third parties (harms that one would ordinarily forbid but one is grudgingly willing to permit here to increase much needed mitigation and adaptation). Such policies generally have a ripple effect and adversely affect people in a wide range of contexts. Some examples will help bring out what is at stake. Consider, for example, imposing a carbon tax on goods, which, since it covers the carbon dioxide emitted in transporting goods from developing countries, prices them out of the market and thereby

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<sup>9</sup> For instructive discussions see Alan Hamlin and Zofia Stemplowska's account of what they term a "theory of ideals" (Hamlin and Stemplowska 2012, pp.53-58), Stemplowska (2008) and Swift (2008).

contributes to the impoverishment of farmers in Africa. Or consider a system of ‘feed-in tariffs’ whereby consumers are remunerated for building their own solar energy panel (or wind turbine) and selling excess energy back to the National Grid. In practice these are regressive because only wealthy energy consumers can afford the solar panels and wind turbines and the cost of the remuneration (and often subsidy) is passed on to the general consumer – meaning that poorer people are subsidising wealthier people. Whilst this makes a positive contribution to combating climate change it may adversely affect some people’s health (they may no longer be able to heat themselves) or pursue other goals (because they have less disposable income). Or consider biofuels policies: these have been justified as a way of reducing reliance on fossil fuels. However, there have been concerns that biofuel production (including, for example, US bioethanol production from corn) has led to a spike in food prices (as the increased demand for crops pushed up the price of food), that bioethanol production from sugar cane in Brazil has resulted in violations of labour rights, and that palm oil biodiesel production in Malaysia has led to land grabs (Nuffield Council on Bioethics 2011, pp.28-41). Nonideal climate policies thus affect a number of different interests (in health, access to land, food security, and autonomy).

Note now that the same is also true of response 1 (which, recall, recommends aiming for a less ambitious climate target). For this response would also adversely affect a wide range of persons’ interests, including the same as those listed above. It results in threats to health (through the increased spread of infectious diseases), famine (because higher temperatures will result in crop failure), poverty (because people’s livelihoods are threatened by severe weather events, like storm surges and flooding) and loss of land (because of rising sea-levels and the resulting effects in small island states and coastal settlements).

Given this it would be a mistake to treat climate change on its own as a separate domain governed by its own principles: both climate change itself and the nonideal policies needed to avert it impact on a wide set of interests (in health, food, autonomy, land, and autonomy among others). We are not faced here with separate domains that can be governed by their own internal principle, but a well-integrated social, economic and environmental system. To use Socrates’ metaphor from the *Phaedrus*, the social world is not carved into domains like ‘climate’ and ‘development’ and ‘health’ and ‘migration’, such that if one treats ‘climate’, say, in isolation one is carving nature at the joints. Rather one is more like Socrates’ “incompetent butcher” hacking into meat and not following the natural joints (Plato 2002, 265e).

Suppose that someone is unpersuaded and insists that there are principles of justice that apply specifically to climate change (and similarly principles of ‘development justice’, ‘trade justice’, ‘health justice’, ‘migration justice’, ‘procreative justice’ and so on). Even they will have to accept something like Principle 2<sub>gv</sub> for they will necessarily have to consider what to do when pursuing climate justice comes at the cost of development justice or individual rights. They cannot think that each of these separate sets of principles gives *all things considered* reasons for action for there will be cases where realizing one set of principles might necessarily compromise another. They must regard their principles of ‘climate justice’ as *pro tanto* and thus need some general normative framework from which to determine what *all things considered* they should do in these cases.

§3. Having argued that we need an integrated general theory we now obviously have to consider what our guiding normative theory should be? Clearly, I lack the space to develop and defend one here. I thus draw on one I have defended elsewhere. This has two core features. First, it is committed to an egalitarian conception of global justice (Caney 2005a, chapter 4). Second, it holds that people’s shares should be defined in terms of their enjoyment of what Martha

Nussbaum (2006) and Amartya Sen (2009, part III) have termed capabilities. I here follow Nussbaum's instructive specification of capabilities, so that comprises: "life", "bodily health", "bodily integrity", "senses, imagination, and thought", "emotions", "practical reason", "affiliation", "other species", "play" and "control over one's environment" (Nussbaum 2006, pp.76-78). With all this in mind then we can reframe the second principle as follows:

Principle 2<sub>specific version</sub>: Any nonideal theory of climate justice must draw on a broadly egalitarian theory of global justice that employs a capabilities framework (hereafter Principle 2<sub>sv</sub>).

Those readers who have a different account can reformulate this using their own account.

#### IV: Feasibility

We are now equipped to move to a third essential component of a nonideal account of climate justice. This can be stated as follows:

Principle 3<sub>general version</sub>: For any agent her course of action should be informed by the opportunities available and constraints she faces (hereafter Principle 3<sub>gv</sub>).

Principle 3<sub>gv</sub> instructs agents to identify the possibilities that they have in front of them and identify what opportunities she has to make a difference and what obstacles there are.

What does this mean in the case of climate change? Combating climate change requires furthering mitigation, enabling people to adapt and pursuing compensation for those harmed. With this in mind we can reformulate Principle 3<sub>gv</sub>: as follows:

Principle 3<sub>specific version</sub>: For any agent her course of action should be informed by the opportunities available for mitigating, adapting or compensating climate change and opportunities for enabling/inducing others to mitigate, adapt, compensate climate change (hereafter Principle 3<sub>sv</sub>).

In practice, this justifies a wide suite of actions. It is particularly relevant for my sixth response since this requires coordinating with others to try to change the institutional framework within which people operate. For example, university students, as members of an academic community and in virtue of their inclusion (at least in many universities) in Student Unions and various consultative bodies, have the opportunity to campaign for their university to divest from fossil fuels. Someone with legal expertise may have the opportunity to offer their skills and work with others to engage in climate litigation.<sup>10</sup> Others can assist in developing and supporting initiatives for seeking compensation for "loss and damage". Someone who is a respected member of a community that has traditionally been hostile to initiatives to adopt mitigation policies has a greater opportunity to change minds than someone perceived to be an outsider. All of the above should also seek to identify strategies that converge with the goals of others, and should exploit those potential sources of commonality. For example, many mitigation policies have co-benefits (cleaner air from reduced emissions, greater health from more cycling, etc).

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<sup>10</sup> Some, for example, draw on the doctrine of public trust and engage in 'atmospheric trust litigation'. See the discussion of 'atmospheric trust litigation' in Wood (2014, p.220ff). See also the work of the non-governmental organization 'Our Children's Trust' (<http://ourchildrenstrust.org>). For an instructive analysis of 'climate change liability' and what it means in practice in 17 different countries and the European Union see Lord, Goldberg, Rajamani, & Brunnée (2012) *Climate Change Liability: Transnational Law and Practice*.

We should note here that although Principle 3<sub>sv</sub> is, to a large extent, about political feasibility *defined in terms of the degree of political opposition or political support for certain courses of action* there is more to it than that. For example: Suppose that a country's existing housing stock is approaching a stage when it needs renewal. Or, suppose that an existing power plant is coming to the end of its natural lifetime. Or suppose that an existing treaty is coming to its end (in the way that the Millennium Development Goals were designed to come to an end in 2015): then is a good opportunity to make progress.

In all of these cases there is a "window of opportunity" that exists at some specific time, and which may not be relevant later. Agents seeking to further justice in a nonideal world thus need to be aware of opportunities on the horizon, and to exploit them.

### V: Why Responsibilities will Vary Between Different Agents

Having defended three principles, I now want to note an implication of two of them. The implication is this:

Principle 4<sub>general version</sub>: What response should be adopted in response to noncompliance will vary from one agent to another (hereafter Principle 4<sub>gv</sub>).

There are two reasons for this. The first is normative and stems from Principle 2<sub>gv</sub>. Agents differ in the extent to which they currently enjoy what they are entitled to enjoy. Compare three agents: one has more than their fair share, a second has a little bit less than what they are entitled to, whereas a third falls radically beneath what they are entitled to. In such circumstances, then, other things being equal, the first should take a lead, followed by the second, and it might be unfair to ask anything of the third. The core point is that one cannot simply say, in the face of noncompliance, that others should (or should not) take on an increased share of responsibilities. It depends on their standard of living and how it compares to what they are entitled to (Caney 2005b, pp.771-772). Crudely, what we can reasonably expect of Bangladesh is different from what we can expect of Germany.

A second reason for endorsing Principle 4<sub>gv</sub> concerns feasibility and stems from Principle 3<sub>gv</sub> (Lawford-Smith 2013, pp.244, 250-251, 253 & 256; Solum 2008, pp.314-315). Agents differ in the kinds of opportunity available to them. (For example, some have the opportunity to influence divestment and others not.) And they differ in the extent to which they face obstacles and have power at their disposal; some may have very little, others a considerable sway. Two agents may both be able to influence whether a university or corporation divests or not, but one may have more power. In such a circumstance it follows, again, other things being equal, that the first has a greater responsibility to take up action. As the examples given in Section III bring out, different actors face different types of opportunity and they may also differ in the extent to which they can make a difference.

Of course, we should note that, at a more abstract level, we can make some general claims about all actors. For example, to draw on a point made by Holly Lawford-Smith, one can plausibly argue that all agents have a duty to 'signal' to others their willingness to cooperate (Lawford-Smith 2015). However, when we come to specifying precise courses of action, what actions an agent should perform depends on their normative situation and the powers at their disposal. There is no single concrete course of action that is the best for all actors.

## VI: Illustrative Examples

Given the argument of Section IV, a comprehensive statement of who ought to do what in the face of noncompliance would have to engage in an exhaustive analysis of all the different possible agents and the options available to each. To attempt to do this here would be quixotic. However, not to say more might be to leave matters at an unhelpfully abstract level. Given this, in this section I shall give some illustrative examples to bring out what responses might be appropriate for some actors. We face here a choice between two strategies: one would be to start with all possible duty-bearers and explore what each could do. A second would be to start with what needs to be done to overcome noncompliance and work back from that as to who should do it. Given that our focus is on mitigating climate change (as well as furthering adaptation and securing compensation for loss and damage), and that it is such a pressing task, this second approach seems to me more appropriate for it is better suited to providing an effective course of action. What then needs to be done?

Here are four crucial objectives for addressing noncompliance.

**A: Clean Energy.** A crucial (perhaps the most pressing) goal is to develop and transfer clean technologies. Three factors combine to make this a pressing imperative. First, humanity can permissibly emit only a small volume of greenhouse gases (*the limited and shrinking greenhouse gas budget*). As we saw at the start of this essay, if we set aside other greenhouse gases and focus on having a 50% chance of avoiding a 2°C increase then humanity could emit a trillion tonnes of carbon. And as I reported above, “half [445 to 585 PgC] of this budget was already emitted by 2011” (Collins and Knutti 2013, p.1033). At the same time, second, many have a pressing need to use energy to develop and lift themselves and others out of poverty (*the developmental imperative*). Even if others complied with their responsibilities to reduce their emissions, securing development without triggering dangerous climate change would be a formidable challenge. However, the problem is greatly compounded because of a third factor: so many have failed to reduce their emissions (*pervasive noncompliance*). Given these three factors - limited greenhouse gas budget, the developmental imperative and pervasive noncompliance - it is vital that humanity develops new sources of clean energy, and that it does so in ways such that everyone throughout the world, now and in the future, can enjoy them.<sup>11</sup>

Working back from this, we can say that those who are able to affect the creation and/or transfer of clean energy have a duty to do so and to help the shift to a non-carbon economy. This entails, for example, that research scientists have a reason to do research on developing clean technology; that those with access to funding (such as governments, universities and research councils) allocate it in such a way that it incentivizes the production and transfer of such resources; and, that citizens press and campaign for research funding. It also gives those with legal expertise reason to frame intellectual property laws in such a way as to further the twin goals of incentivizing clean technology and sharing it. A promising example is Thomas Pogge’s proposal for an ‘Ecological Impact Fund’. Under this scheme governments divert resources into the Fund. Companies are then rewarded to the extent that they develop and transfer clean technologies.

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<sup>11</sup> For instructive discussions of the importance of clean energy innovation and transfer see Scott Barrett (2003, pp.393-398), Dieter Helm (2012, chapter 11), Matthew Rimmer (2011) and David Victor (2011, chapter 5).

The central idea is to utilize self-interest and design an intellectual property regime so as to harness this in order to generate socially beneficial outcomes (Pogge 2010, pp.539-542). This is a paradigmatic case of a nonideal climate initiative: it does not rest on rosy assumptions about human nature, and it seeks rather to harness existing nonmoral motives in order to increase compliance.

**B: Fossil Fuel Subsidies.** Consider now a second nonideal climate initiative. Many governments spend a great deal of money subsidizing fossil fuels, thereby lowering the price of consuming fossil fuels below what it would otherwise be. The International Energy Agency reports that in 2013 governments spent \$548 billion on fossil fuel subsidies – four times what they spent on renewables and also four times what they spent on initiatives to increase energy efficiency (IEA 2014, p.314). Such enormous subsidies (comprising both consumer subsidies and producer subsidies) have several predictable malign consequences. First, of course, they thereby increase fossil fuel consumption. Second, such subsidies also prevent renewable energy sources from being competitive. A defender of such subsidies might respond that some such subsidies – particularly consumer subsidies designed to make energy consumption more affordable – is justified because it helps meet the needs of the most vulnerable. However, the International Energy Agency also reveals that “a large share ... of the subsidies aimed at helping the poor often ends up going to higher income households, as they can afford to consume more of the subsidised fuels, aggravating the very inequality they are meant to reduce” (IEA 2014, pp.317-318). Indeed, “only 8% of the money spent on fossil-fuel subsidies reaches the poorest 20% of the population ... other direct forms of welfare support would cost much less” (IEA 2014, p.318).

Who can address this kind of problem? Members of environmental groups can publicise the extent of these practices and make them visible. Economists can vigorously draw attention to the harmful effects of subsidies and make the case for their removal. Citizens can put pressure on political parties and politicians. Furthermore, there can be *some* convergence here between those of different political persuasions. For example, those in the centre and on the left who object to these particular subsidies can join forces with classical liberals and libertarians who will be skeptical of all subsidies financed by taxation (though they may part ways on financing clean technology).

**C: Framing.** In addition to the above, one core task that is of vital importance is maintaining sufficient electoral support for governments to implement radical mitigation policies and sustain them over time. This then puts a premium on communicating the effects of climate change in such a way that it resonates with citizens. Now as the psychological literature on climate change testifies this is a challenging task, and there are many cognitive and other biases which make this hard to realize.<sup>12</sup> Given this, it is vital that those who can and do play a role in communicating the causes, nature and impacts of climate change - political leaders, climate scientists, journalists, and teachers - ‘frame’ the issues surrounding climate change in ways that speak to everyday citizens. This requires, for example, attention to the language used and the norms invoked and it speaks to the role of rhetoric. It is important, for example, that climate change is framed in ways that appeal to adherents to different political ideologies (Wolsko, Ariceaga, & Seiden 2016, pp.7-19).

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<sup>12</sup> For pertinent psychological analyses see Johnson and Levine (2009, pp.1593-1603), Markowitz, & Shariff (2012, pp.243-247) and Weber (2006, pp.103–120; 2010, pp.332-342).

***D: Exemplification and Visions of the Future.*** Finally, it is important for political leaders and for the general public to have a vision of what a non-carbon society would look like. Many, for example, may struggle to know what living in a society that is not reliant on fossil fuels will be like, and how to get there. This lack of a vision can be unsettling (since it is unknown) and without a vision of the future it may be hard to motivate people. For these reasons those who are able to make vivid to people what a post-carbon society would be like, and what it would be like to live in one can play a vital motivational role. One possible illustration of this is the phenomenon of 'Transition Towns', which are projects to exemplify the environmental ideal at the local level.<sup>13</sup>

Many more examples could be given of other equally crucial policies - most importantly, facilitating mitigation policies such as carbon taxes and emissions trading schemes; campaigning for infrastructural changes that do not lock us into a high carbon future; shareholders and others pressuring major institutions, such as universities, to divest from fossil fuels; enhancing reproductive autonomy, thereby lowering the numbers of unwanted pregnancies and thus reducing demographic pressures on the environment. My point here is simply to put flesh on the bones of the rather abstract principles defended above, and to give some sense of some ways they could be put in practice.

## VII: The Governance Question

My focus in this paper is on what I earlier termed the *Responsibility Question*, As I noted above, though, since one of the responsibilities is to engage in political action it would be remiss not to say anything at all about the extent to which those who engage in political actions should seek to reform or work with the existing decision-making processes. And so we must say something about what I earlier termed the *Governance Question*, where this is defined as follows:

Q2: Given the lack of progress in combating climate change, should existing governance structures be maintained or changed (and if they should be changed, in what ways)?

I have addressed the question of how we might rethink domestic institutions elsewhere (Caney in press) and so here I shall focus on the international context.<sup>14</sup>

How should one proceed? A full and systematic answer to this would mirror the methodology I adopted with the *Responsibility Question*. That is, it would (i) set out the different possible responses to poorly functioning institutions, (ii) present and defend an underlying normative theory concerning institutional design, and (iii) develop an account of what is feasible. Space precludes a comprehensive analysis comprising (i) to (iii). Instead I will put forward one proposal that I think nicely exemplifies an appropriate response to a nonideal governance regime.

The proposal can be expressed in three steps:

*First:* An ideal governance regime would be democratically inclusive, and it would realize some important substantive principles of justice (namely, effectively reducing emissions, distributing burdens equitably, enforcing a just set of adaptation policies, and implementing 'loss and damage' policies). Since, however, an ideal regime is not available, we should start with the existing

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<sup>13</sup> For some information concerning the Transition movement see:

<https://www.transitionnetwork.org/>.

<sup>14</sup> See also Caney (2014b).

institutional architecture and negotiating process. We should not wish away inconvenient aspects of the current regime, but bear them in mind as constraining factors.

Second: in this vein we might look to the most recent international treaty (at the time of writing) – the Paris Agreement. Contained therein are some important features. In particular, the Paris Agreement proposes that parties each declare their mitigation plans, and that these are then reviewed on a regular basis. Thus Article 14.1 of the Paris Agreement states that

“The Conference of the Parties serving as the meeting of the Parties to the Paris Agreement shall periodically take stock of the implementation of this Agreement to assess the collective progress towards achieving the purpose of this Agreement and its long-term goals (referred to as the “global stocktake”). It shall do so in a comprehensive and facilitative manner, considering mitigation, adaptation and the means of implementation and support, and in the light of equity and the best available science.”<sup>15</sup>

The first such “global stocktake” is scheduled for 2023 and then it will be held “every five years thereafter” (Article 14.2). In addition to this, however, paragraph 20 of the text specifying the ‘Adoption of the Paris Agreement’ requires there to be “a facilitative dialogue among Parties in 2018 to take stock of the collective efforts of Parties”.<sup>16</sup> The salient point then is that the current regime has created a system including a “facilitative dialogue” and a “global stocktake”.<sup>17</sup>

*Third:* This provides the context for the proposal. The proposal is that organizations can, and should, operate within this existing governance structure and ought to exploit these review processes and mechanisms to hold governments to account. This would entail, for example, that NGOs, political parties, religious organizations, climate scientists, and others put pressure on their governments during critical periods. For example, it is valuable for NGOs to publish reports ranking parties in terms of their compliance with this, or to produce a league table of how each government is doing (both in terms of how ambitious its commitments are and to what extent it is matching them).<sup>18</sup> They might initiate a series of public discussions in each country of how well it is doing in meeting its objectives in the lead-in to the review period; and build progress reports and parliamentary debates on these into the national legislative process.

This, I believe, exemplifies a non-ideal response to the existing international climate regime. It takes the existing architecture as a starting point, and seeks to find ways to build on it (all the while bearing in mind other more long-term and more radical processes of reform).

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As I have stressed above, much more can, and should, be said about responding to noncompliance. What I hope to have done is to outline how agents should decide what to do

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<sup>15</sup> <https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf>.

<sup>16</sup> <https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf>.

<sup>17</sup> Interestingly, Thomas Schelling proposed a scheme that is similar in nature to this. See his discussion of what he terms “multilateral reciprocal scrutiny” in Schelling (1997, pp.10-12; also, 1992, pp.12-13).

<sup>18</sup> For an example of what I have in mind see *Climate Action Tracker* which assesses countries’ ‘Intended Nationally Determined Contributions’.

<http://climateactiontracker.org/>

See also Climate Analytics:

<http://climateanalytics.org/what-we-do/climate-policy-analysis.html?theme=24>

when others fail to discharge their climate responsibilities (Sections II—V), to indicate concrete courses of action (Section VI), and to draw attention to how agents might also respond to the inadequate governance structures, and again to outline a specific course of action (Section VII). Without a sustained campaign along the lines defended above, the prospects of achieving a just and effective response to climate change remain bleak indeed.

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