
Climate change, human rights and moral thresholds¹

SIMON CANEY*

It is widely recognized that anthropogenic climate change will have harmful effects on many human beings and, in particular, on the most disadvantaged. Specifically, it is projected to result in flooding, heat stress, food insecurity, drought and increased exposure to water-borne and vector-borne diseases. Various different normative frameworks have been employed to think about climate change. Some, for example, apply cost–benefit analysis to climate change. The *Stern Review* provides a good example of this approach.² It proceeds by comparing the costs (and any benefits) associated with anthropogenic climate change with the costs and any benefits of a programme for combating climate change. On this basis it argues that an aggressive policy of mitigation and adaptation is justified. Whereas the costs of combating climate change, according to Stern, are quite low, the costs of ‘business as usual’ would be considerable. Other analysts adopt a second perspective and conceive of climate change in terms of its impact on security.³ For

* Simon Caney is Professor in Political Theory, Oxford University; Fellow and Tutor in Politics, Magdalen College.

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² Sir Nicholas Stern, *The Economics of Climate Change: the Stern Review* (Cambridge University Press, 2007).

³ It is very important to distinguish this traditional type of security-based argument, with its emphasis on violent conflict, from other conceptions of security. It should, for example, be contrasted to the concept of ‘human security’. The latter breaks with notions of security that define it wholly in terms of the extent of violent conflict and defines it more broadly. A canonical characterization of human security can be found in the UNDP’s 1994 *Human Development Report*. It is argued there that human security comprises ‘economic security’, ‘food security’, ‘health security’, ‘environmental security’,

example, the High Representative and the European Commission to the European Council issued a statement on *Climate Change and International Security* which argues that climate change is ‘a threat multiplier which exacerbates existing trends, tensions and instability’.⁴ It argues that climate change will contribute to insecurities, such as tensions over scarce resources, land loss and border disputes, conflicts over energy sources, conflict prompted by migration and tensions between those whose emissions caused climate change and those who will suffer the consequences.⁵ In addition to the ‘economic’ approach and ‘security’-based approach, some adopt a different third perspective, according to which the natural world has intrinsic value. This ecological approach condemns human-induced climate change because it is an instance of humanity’s domination and destruction of the natural world.

For all of their merits these three perspectives omit an important consideration – the impact of climate change on the fundamental human rights of people. In this chapter I shall argue that a human rights approach provides an appropriate way in which to evaluate the effects of climate change. There are historical precedents for applying human rights to evaluate environmental change. Principle 1 of the 1972 Stockholm Declaration of the United Nations Conference on the Human Environment declares that ‘[m]an has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations’.⁶ More recently, on 14 November 2007, a conference of AOSIS members adopted the Malé Declaration on the Human Dimension of Global Climate Change.⁷ This invoked ‘the

‘personal security’, ‘community security’ and ‘political security’, United Nations Development Programme, *Human Development Report 1994: New Dimensions of Human Security* (Oxford University Press, 1994), ch. 2, especially 24–5. My concern here is with traditional conceptions of security. For a good application of the concept of human security to climate change see Karen O’Brien ‘Are we Missing the Point? Global Environmental Change as an Issue of Human Security’, *Global Environmental Change*, 16:1 (2006), 1–3.

⁴ The paper can be found at: www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/reports/99387.pdf. The quotation is from p. 2.

⁵ High Representative and the European Commission to the European Council, *Climate Change and International Security*, Section II.

⁶ United Nations Environment Programme, *Declaration of the United Nations Conference on the Human Environment* (Stockholm, 1972). Available at: www.unep.org/Documents.multilingual/Default.asp?DocumentID=97&ArticleID=1503.

⁷ *Malé Declaration on the Human Dimension of Global Climate Change*, available at: www.ciel.org/Publications/Male_Declaration_Nov07.pdf.

fundamental right to an environment capable of supporting human society and the full enjoyment of human rights' and it expressed concern:

that climate change has clear and immediate implications for the full enjoyment of human rights including *inter alia* the right to life, the right to take part in cultural life, the right to use and enjoy property, the right to an adequate standard of living, the right to food, and the right to the highest attainable standard of physical and mental health.⁸

The Human Rights Council of the United Nations has since passed a resolution which found that 'climate change poses an immediate and far-reaching threat to people and communities around the world and has implications for the full enjoyment of human rights'.⁹

I believe that this is a promising approach. In what follows I shall argue that:

- (1) climate change jeopardizes some key human rights;
- (2) a 'human rights' centred analysis of the impacts of climate change enjoys several fundamental advantages over other dominant ways of thinking about climate change; and
- (3) a 'human rights' centred analysis of the impacts of climate change has far-reaching implications for our understanding of the kind of action that should be taken and who should bear the costs of combating climate change.

The nature of human rights

It is useful to begin with an analysis of 'human rights'. The concept of 'human rights' has several components. I shall highlight four. Human rights: (1) are grounded in a person's 'humanity'; (2) represent moral thresholds; (3) respect each and every individual; and (4) take general priority over other values. Let us consider each of these in turn.

(1) *Humanity*. First, human rights refer to those rights that persons have *qua* human beings. There are a number of different kinds of rights. H. L. A. Hart, for example, distinguishes between 'special rights' and 'general rights'. Special rights, on his account, are rights that persons have by virtue of some action that they and some other party have performed (for example, they have signed a contract or one has

⁸ Malé Declaration.

⁹ This was agreed at the seventh session of the Human Rights Council on 26 March 2008 (A/HRC/7/L.21/Rev.1).

authorized the other to do something), or by virtue of a special relationship (for example, they have been born into one state and, therefore, have the rights of citizenship).¹⁰ These special rights can be contrasted to what Hart terms ‘general rights’. These are the rights that people have by virtue of their humanity, and not because of the nation or state into which they were born or any actions that they have performed. Hart’s concept of ‘general rights’ captures well the traditional understanding of ‘human rights’. They are the rights that people possess independently of any social convention or social practice. They are grounded in respect for a person’s humanity.

(2) *Moral thresholds*. Second, human rights represent moral ‘thresholds’ below which people should not fall. They designate the most basic moral standards to which persons are entitled. This point is nicely conveyed by Henry Shue who writes that ‘[b]asic rights are the morality of the depths. They specify the line beneath which no one is to be allowed to sink’.¹¹ As such they are only part of a complete political morality. They leave room for other moral ideals and values. To reiterate, they simply designate the most fundamental moral requirements which individuals can claim of others.

(3) *Universal protection*. Third, and related to this, human rights represent the entitlements of *each and every individual* to certain minimum standards of treatment, and they generate obligations on all persons to respect these basic minimum standards. Article 1 of the Universal Declaration of Human Rights (UDHR) (1948) captures this well. As it states, ‘[a]ll human beings are born free and equal in dignity and rights’. A human rights approach thus stands opposed to aggregative political moralities that simply sum the interests of all with a view to increasing the total social good. A human rights approach insists on the protection of the entitlements of *all* individuals and condemns

¹⁰ H. L. A. Hart, ‘Are There Any Natural Rights?’, *The Philosophical Review*, 64:2 (1955), 183–8. I dissent from one aspect of Hart’s characterization of general rights: he ascribes general rights to all humans capable of choice, whereas I ascribe general/human rights to all humans whether or not they can exercise choice. Hart’s position here follows from his commitment to the ‘choice’ theory of rights which he pioneered and defended in ‘Are There Any Natural Rights?’. (I endorse the alternative theory of rights, that is, what has come to be termed the ‘interest’ theory of rights. For a canonical statement of this approach see Joseph Raz, *The Morality of Freedom* (Oxford: Clarendon Press, 1986), ch. 7. Evaluating the debate between the choice theory and the interest theory would take us too far afield.)

¹¹ Henry Shue, *Basic Rights: Subsistence, Affluence, and U.S. Foreign Policy*, 2nd edn., with a new afterword (Princeton University Press, 1996), 18.

any trade-offs which would leave some below the minimum moral threshold.

(4) *Lexical priority*.¹² Fourth, human rights generally take priority over moral values, such as increasing efficiency or promoting happiness.¹³ They constrain the pursuit of other moral and political ideals, and if there is a clash between not violating human rights, on the one hand, and promoting welfare, on the other hand, then the former should take priority.

In short, then, and combining each of the four properties above, we may say that human rights specify minimum moral thresholds to which all individuals are entitled, simply by virtue of their humanity, and which override all other moral values.¹⁴

¹² The concept of 'lexical priority' comes from John Rawls, *A Theory of Justice*, rev edn (Oxford University Press, 1999), 37–8. As Rawls employs this term, to say that A enjoys lexical priority over other values is to say that it is morally more urgent and may not be sacrificed to pursue any of these other values.

¹³ This priority may not be absolute in all circumstances. One can, of course, envisage situations where sacrificing the rights of one person will save very many people. Some might then condone the sacrifice of one right in such scenarios. Three points should be made here. First, these refer to exceptional cases and so one might say (as I do in the text above) that human rights generally take priority. Second, even if one thinks that an individual human right may be violated one may hold that such a violation is permissible only to honour other human rights. So even if an individual human right may be overridden this does not entail that human rights as a category can be overridden to further some other goal. Indeed, the standard cases presented to show that human rights might be overridden always present examples in which the case for violating one human right (e.g., torturing a terrorist suspect) is that it would uphold other human rights (e.g., the right to life) of many others. Finally, though I cannot argue the point here, I agree with those who argue that even if one could conceive of a case where, in principle, violating one human right would protect more human rights, institutionalizing it in practice would be wrong because it would in all likelihood lead to unjustified human rights violations. Accepting that in a hypothetical situation a right might be violated does not show that in practice institutions should be given the power to do so, simply because one might think that the relevant decision-makers are fallible or might abuse the power. See Peter Jones, *Rights* (Basingstoke: Macmillan, 1994), 203–4.

¹⁴ The account I have sketched conforms to what Charles Beitz terms an 'orthodox' conception of human rights. See Beitz, 'Human Rights and the Law of Peoples' in Deen Chatterjee (ed.), *The Ethics of Assistance: Morality and the Distant Needy* (Cambridge University Press, 2004), 193–214. He contrasts the 'orthodox' account to what he terms the 'practical' account. The latter maintains that human rights should be defined in terms of the role that they play in political practice. More precisely, human rights, on this view, specify the conditions under which some kind of intervention in another society is justified. Beitz raises a number of objections to the orthodox conception and proposes the practical conception as a superior alternative. For Beitz's description of the practical account see 'Human Rights and the Law of Peoples', especially

Two further points about the concept of human rights bear noting. First, it is conventional to distinguish between positive and negative rights, where positive rights require others to perform certain actions and where negative rights require others simply to abstain from certain actions. To illustrate the difference: one might affirm that there is a negative right not to be tortured. This generates duties on all not to perform this kind of action. Alternatively, one might affirm a positive right, say, to education. This requires not simply that others do not deprive persons of education but also that others perform positive actions to ensure that all have access to education.¹⁵

Finally, it bears noting that there are a variety of different justifications of human rights. Following Thomas Nagel, I shall distinguish between ‘intrinsic’ and ‘instrumental’ justifications of human rights.¹⁶ An ‘intrinsic’, or deontological, approach is grounded in the idea of respect for persons. It holds that to violate a person’s human rights is to fail to show them the respect that they are owed. It does not, in Kant’s phrase, treat people as ends in themselves. Nagel himself adopts an intrinsic approach, where he defends human rights on the grounds that they reflect the ‘value of inviolability’.¹⁷ Each person, on this view, has a certain ‘moral status’ or standing and should not be treated as a potential means to an end.¹⁸ To view them as potentially usable in this way is to fail to recognize their inviolability. This intrinsic rationale for human rights can be contrasted to instrumental or teleological approaches. The latter justify human rights on the grounds that they enable each person to enjoy certain fundamental goods. Unlike deontological accounts, they justify human rights in terms of their consequences for people’s lives and the state of affairs produced. Human rights, on this second account, are valuable because they enable people to be autonomous or to achieve a decent standard of living.¹⁹ To give one recent example, in his important work, *Justice, Legitimacy,*

201–5, and also Charles Beitz, ‘Human Rights as a Common Concern’, *American Political Science Review*, 95:2 (2001), 269–82, especially 276ff.

¹⁵ This is a necessarily abbreviated discussion of this distinction. For a fuller analysis see Shue, *Basic Rights*, ch. 2 and Caney, ‘Global Poverty and Human Rights: the Case for Positive Duties’ in Thomas Pogge (ed.), *Freedom from Poverty as a Human Right: Who Owes What to the Very Poor?* (Oxford University Press, 2007), 275–302.

¹⁶ Nagel, ‘Personal Rights and Public Space’, *Philosophy and Public Affairs*, 24:2 (1995), 86.

¹⁷ Nagel, ‘Personal Rights and Public Space’, 89, see also 89–93.

¹⁸ Nagel, ‘Personal Rights and Public Space’, 89. Nagel here is developing ideas defended by Frances Kamm and Warren Quinn (89, note 3).

¹⁹ This does not exhaust the different approaches to grounding human rights. For a contrasting view see that expressed by John Rawls in *The Law of Peoples with ‘The*

and Self-Determination: Moral Foundations for International Law, Allen Buchanan argues that human rights have value because they protect interests that ‘are constitutive of a decent life; they are necessary conditions for human flourishing’.²⁰ A similar position is taken by Martha Nussbaum, who argues that human rights are valuable because they protect vital ‘capabilities’ that are necessary to lead a decent life.²¹ The teleological position is also defended by James Griffin in his recent work, *On Human Rights*.²² In what follows, I shall be neutral between the intrinsic and instrumental accounts.²³ Both, I suggest, will endorse the human rights I propose.

Climate change and human rights

Having clarified the concept of human rights, I now want to turn to the linkages between anthropogenic climate change and human rights. Climate change, so I shall argue, jeopardizes three key human rights: the human right to life; the human right to health; and the human right to subsistence. Each of these will be examined in turn.

Prior to discussing each of these human rights, it is worth drawing attention to one aspect of the arguments that follow. In the case of each of the human rights that I will identify, I will present what I take to be the least contentious and most modest formulation of the human right in question and show that even using such minimal conceptions of human rights, anthropogenic climate change violates human rights. In doing so, I am *not* rejecting other more expansive interpretations of

Idea of Public Reason Revisited (Cambridge, MA: Harvard University Press, 1999). Rawls approaches human rights in a different way. He argues that human rights perform three roles: (i) they specify an essential condition for any ‘decent’ society; (ii) if they are honoured then any kind of intervention is illegitimate; and (iii) they constrain the extent of permissible diversity among different societies (*The Law of Peoples*, 80, compare further 79–81). Rawls proposes a set of human rights that both ‘liberal’ and ‘decent’ non-liberal peoples can embrace and he rejects an account of human rights that is predicated on a commitment to liberalism, *The Law of Peoples*, 37 and 65.

²⁰ Buchanan *Justice, Legitimacy, and Self-Determination: Moral Foundations for International Law* (Oxford University Press, 2004), 127. See more generally Buchanan’s excellent analysis of the nature of, and case for, human rights, *ibid.*, ch. 3.

²¹ Martha Nussbaum, ‘Capabilities and Human Rights’ in Pablo de Grieff and Ciaran Cronin (eds.), *Global Justice and Transnational Politics: Essays on the Moral and Political Challenges of Globalization* (Cambridge, MA: MIT Press, 2002), 117–49.

²² James Griffin, *On Human Rights* (Oxford University Press, 2008), especially 33–7 and 57–82.

²³ I have defended an instrumental approach in Simon Caney, *Justice Beyond Borders: A Global Political Theory* (Oxford University Press, 2005), ch. 3.

each of these human rights. My point is that one does not need to rely on more controversial or ambitious conceptions of human rights in order to see how climate change jeopardizes human rights.²⁴

The human right to life

The right to life has been conceptualized in various ways. Controversies surround what entities hold this right (do fetuses have a right to life?), and what exceptions apply to it (consider, for example, debates concerning the justifiability of capital punishment and killing during warfare). The claim that I wish to defend does not require us, however, to take a stand on either of these controversial issues. It states that:

HR1 – the human right to life: all persons have a human right not to be ‘arbitrarily deprived of his life’. (International Covenant on Civil and Political Rights (ICCPR) (1976), Article 6.1)

Two comments are in order here. First, note that this formulation of the right to life conceives it simply as a negative right. As such, it does not make the more contentious claim that each person has a positive right to have their life saved from all kinds of threats. Second, HR1 makes reference to ‘arbitrarily’ depriving people of life. The point of this wording is to allow the possibility that it might, in principle, be justifiable to deprive people of their life. Such a loss of life would not be ‘arbitrary’. As noted above, some might hold that capital punishment is justified and hence would reject HR1 if it claimed that all loss of life counts as human rights violation. By insisting that only ‘arbitrary’ loss of life counts as a rights violation (and by allowing the possibility that capital punishment can be a non-arbitrary loss of life) one avoids this controversy. This addition does not have any further implications, but it is important to present as compelling a conception of the human right to life as possible.

Now once we interpret the human right to life along the lines suggested by HR1, and thereby avoid the controversies mentioned above, it is clear that it would be endorsed by both deontological and teleological

²⁴ My approach here is indebted to that advanced by Thomas Pogge in his pioneering work on global poverty. See his important work, *World Poverty and Human Rights: Cosmopolitan Responsibilities and Reforms*, 2nd edn. (Cambridge: Polity, 2008). I do disagree with some aspects of Pogge’s methodology. See on this Caney, ‘Global Poverty and Human Rights’ and ‘Global Justice, Humanity, and the Eradication of Global Poverty’ in Alison Jaggar (ed.) (Cambridge: Polity, forthcoming 2009).

approaches to human rights. If recognizing the value of inviolability entails anything it surely entails that one does not act so as to arbitrarily deprive people of their lives. It is similarly clear (obvious even) that from a teleological point of view, each person has a right that others do not arbitrarily deprive them of their own life. This is a necessary condition of leading a minimally decent life.

Having identified a plausible conception of the human right to life, it is clear that anthropogenic climate change violates this right. It does so in at least two ways. First, climate change is projected to result in an increasing frequency of severe weather events, such as tornadoes, hurricanes, storm surges and floods, and these can lead to a direct loss of life. Storm surges, for example, can have a devastating effect. R. F. Mclean and Alla Tsyban write that:

Storm-surge flooding in Bangladesh has caused very high mortality in the coastal population (e.g., at least 225,000 in November 1970 and 138,000 in April 1991), with the highest mortality among the old and weak ... Land that is subject to flooding – at least 15% of the Bangladesh land area – is disproportionately occupied by people living a marginal existence with few options or resources for adaptation (references omitted).²⁵

Climate change will also produce flooding and landslides and these can be devastating. The Fourth Assessment Report of the IPCC reports that ‘[i]n 1999, 30,000 died from storms followed by floods and landslides in Venezuela. In 2000/2001, 1,813 died in floods in Mozambique’ (references omitted).²⁶ In addition to severe weather events, climate change will also involve heat waves and these, too, will lead to loss of life. For example, studies have found that a five-day heat wave in Chicago in 1995 led to at least 700 extra deaths.²⁷ Furthermore, in 2003 the heat wave in Western Europe also resulted in a considerable increase in

²⁵ R. F. Mclean and Alla Tsyban, ‘Coastal Zones and Marine Ecosystems,’ in James J. McCarthy, Osvaldo F. Canziani, Neil A. Leary, David J. Dokken and Kasey S. White (eds.), *Climate Change 2001: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Third Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2001), 366–7.

²⁶ Ulisses Confalonieri and Bettina Menne, ‘Human Health,’ in Martin Parry, Osvaldo Canziani, Jean Palutikof, Paul van der Linden and Clair Hanson (eds.), *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2007), p. 398.

²⁷ Jonathan Patz *et al.*, ‘The Potential Health Impacts of Climate Variability and Change for the United States: Executive Summary of the Report of the Health Sector of the U.S. National Assessment’, *Environmental Health Perspectives*, 108:4 (2000), 370.

deaths from respiratory, cardiovascular and cerebrovascular problems. Haines *et al.* report, for example, that:

More than 2000 excess deaths were reported in England and Wales during the major heat wave that affected most of western Europe in 2003 ... The greatest impact on mortality occurred in France, where it was estimated that 14800 excess deaths occurred during the first 3 weeks of August 2003 than would be expected for that time of year. Deaths in Paris increased by 140% (references omitted).²⁸

By virtue of both of these mechanisms, we may conclude that the current anthropogenic climate change violates the human right to life.²⁹

The human right to health

The effects of climate change will not be restricted to its impact on the human right to life; they will also undermine the human right to health. Again, though, we need to be careful in framing this right. A canonical statement of the right to health can be found in the International Covenant on Economic, Social and Cultural Rights (ICESCR) (1976), which affirms ‘the right of everyone to the enjoyment of the highest attainable standard of physical and mental health’ (Article 12.1). In a similar vein the Convention on the Rights of the Child (1990) asserts ‘the right of the child to the enjoyment of the highest attainable standard of health’ (Article 24.1).

These maximalist conceptions of the right to health will be challenged by some. A critic might balk at the claim that all are entitled to ‘the highest attainable standard of physical and mental health’. He or she might contend that to attain the highest possible standard of health would require diverting all resources to this single objective, and this would be implausible given the need to resource other important rights

²⁸ A. Haines, R. S. Kovats, D. Campbell-Lendrum and C. Corvalan, ‘Climate Change and Human Health: Impacts, Vulnerability, and Mitigation’, *The Lancet*, 367, June 24 (2006), 2103.

²⁹ Of course, one cannot specify in advance which particular individuals will suffer, but this does not undermine the moral point that the actions in question undermine human rights. If a saboteur weakens a viaduct on which people drive to work so that after a while it will collapse under the weight of traffic, he or she violates the human rights of those who subsequently plunge to their deaths even if no one can predict in advance who will suffer from this fate. For instructive remarks see Joel Feinberg, ‘The Rights of Animals and Unborn Generations,’ in *Rights, Justice, and the Bounds of Liberty: Essays in Social Philosophy* (Princeton University Press, 1980), 181–2.

or moral objectives.³⁰ In the light of these possible concerns, I shall propose a less ambitious conception of the human right to health. This affirms the following:

HR2 – the human right to health: all persons have a human right that other people do not act so as to create serious threats to their health.

This differs from the ICESCR and CRC conceptions in two related ways. First, it does not require people to maximize the health of all. Second, it does not affirm a positive right to be (maximally) healthy. It affirms only a negative right that persons do not harm the health of others. Note, however, that HR2 is, of course, presupposed by the interpretation of the human right to health found in the ICESCR. For the latter also holds that persons should not act in such a way as to create an unhealthy environment: it is just that it goes much further, calling for positive action to ensure the highest attainable standard of health.³¹

Again, it is, I hope, clear that both deontological and teleological approaches would vindicate HR2. Judged from a deontological point of view, the argument for HR2 is that acting to expose others to dangerous diseases manifests a lack of respect for their status as free and equal persons. To engage in activities which create serious health hazards for others constitutes a severe failure to recognize their moral standing and their inherent dignity as persons. The teleological approach would similarly endorse HR2. The capacity to lead a decent life requires that persons are not exposed to serious threats to their health. Their capacity for agency, their ability to pursue their conception of the good, will be undermined, if not thwarted altogether, by disease and injury.

With this in mind, let us now turn our attention to the health effects of climate change. There is by now an extensive literature chronicling the severe health effects of anthropogenic climate change. The

³⁰ Such a critic should take into account General Comment No. 14 (2000) on Article 12 of the ICESCR, which elaborates how this concept is to be interpreted. General Comment No. 14 can be found in Sofia Gruskin, Michael A. Grodin, George J. Annas and Stephen P. Marks (eds.), *Perspectives on Health and Human Rights* (New York: Routledge, 2005), 473–95.

³¹ Note in this context that General Comment No. 14 on Article 12 of the ICESCR makes clear that the human right to health ‘extends to the underlying determinants of health, such as food and nutrition, housing, access to safe and potable water and adequate sanitation, safe and healthy working conditions, and a healthy environment’. See para. 4 of General Comment No. 14. This point is also reiterated in General Comment No. 14, ‘I. Normative Content of Article 12’, paras. 11 and 12 (as well as in para. 15).

Fourth Assessment Report of the IPCC notes, for example, that anthropogenic climate change will:

increase the number of people suffering from ... disease and injury from heatwaves, floods, storms, fires and droughts;
 increase the range of malaria in some places but decrease it in others;
 increase the burden of diarrhoeal diseases;
 increase cardio-respiratory morbidity ... associated with ground-level ozone'; and
 increase the number of people at risk of dengue.³²

To develop some of these points in more detail: the IPCC reports that '[c]limate change is projected to increase the burden of diarrhoeal diseases in low-income regions by approximately 2 to 5% in 2020'.³³ It adds that dengue, too, will increase dramatically and it reports research that estimates that: 'in the 2080s, 5–6 billion people would be at risk of dengue as a result of climate change and population increase, compared with 3.5 billion people if the climate remained unchanged'.³⁴ Human-induced climate change thus clearly results in a variety of different threats to the human right to health.

The human right to subsistence

Thus far we have seen how anthropogenic climate change undermines two fundamental human rights. Let us turn now to the third human right which I claim is harmed by anthropogenic climate change. This third human right makes the following claim:

HR3 – the human right to subsistence: all persons have a human right that other people do not act so as to deprive them of the means of subsistence.

Note that HR3 is more minimal than the human right to food affirmed in human rights documents. Both the International Covenant on Economic, Social and Cultural Rights (ICESCR) and the Universal Declaration of Human Rights (UDHR) (1948) appear to affirm a positive right to food. For instance, Article 11 of the ICESCR asserts 'the right of everyone to an adequate standard of living for himself and his family, including adequate food' (Article 11.1), and Article 25.1 of the UDHR uses similar wording. Furthermore, the ICESCR also simply

³² Confalonieri and Menne, 'Human Health', 393.

³³ Ibid., 'Human Health', 407. ³⁴ Ibid., 'Human Health', 408.

asserts ‘the fundamental right of everyone to be free from hunger’ (Article 11.2). These formulations, thus, presuppose HR3 but go further, insisting that there is also a positive right to receive aid to ensure that no one suffers from hunger no matter what the cause of that hunger.³⁵

Note, further, that HR3 enjoys support from both deontological and teleological perspectives. From a deontological perspective, the claim is that to deprive others of the possibility of meeting their basic needs is to treat them without due respect. To deny others of the ability to satisfy their subsistence needs fails to acknowledge their moral standing and their dignity as persons. This is especially so when, as is the case with climate change, the majority of emissions come from the advantaged, who do not need to engage in such health-endangering behaviour.³⁶ Turning now to the teleological view: again, this would endorse HR3. Food and drinkable water are necessary preconditions of the ability to act and pursue even minimal goals.

If we turn now to consider the impacts of climate change, it is clear that anthropogenic climate change violates this right. Four different mechanisms should be noted. First, temperature increases will lead to drought and thereby undermine food security. Anthony Nyong and Isabelle Niang-Diop report, for example, that ‘[i]n southern Africa, the area having water shortages will have increased by 29% by 2050, the countries most affected being Mozambique, Tanzania and South Africa’.³⁷ Second, sea level rises will involve loss of land to the sea and thus hit agriculture badly. This is especially clear in countries like Bangladesh. Third, flooding will also lead to crop failure. Fourth, freak weather events will also destroy agriculture. The upshot of these processes is that people will be deprived of the means of subsistence. Bill Hare, for instance, reports that recent research suggests that there will

³⁵ HR3 is closest in formulation to Article 1.2 of the International Covenant on Civil and Political Rights (1976) which states that ‘In no case may a people be deprived of its own means of subsistence.’ HR3, though, refers to the entitlements of individuals, not those of ‘a people’.

³⁶ For relevant data see ‘Gas Exchange: CO₂ Emissions 1990–2006’, *Nature*, 447:7148 (2007), 1038, and Michael R. Raupach, Gregg Marland, Philippe Ciais, Corinne Le Quéré, Josep G. Canadell, Gernot Klepper and Christopher B. Field, ‘Global and Regional Drivers of Accelerating CO₂ Emissions’, *Proceedings of the National Academy of Sciences of the United States of America*, 104:24 (2007), especially 10292.

³⁷ Anthony Nyong and Isabelle Niang-Diop, ‘Impacts of Climate Change in the Tropics: the African Experience’, in Hans Joachim Schellnhuber, Wolfgang Cramer, Nebojsa Nakicenovic, Tom Wigley and Gary Yohe (eds.), *Avoiding Dangerous Climate Change* (Cambridge University Press, 2006), 237.

be '45–55 million extra people at risk of hunger by the 2080s for 2.5°C warming, which rises to 65–75 million for a 3°C warming'.³⁸

Other possible human rights

Thus far we have seen that anthropogenic climate change violates three fundamental human rights. Lest this argument be misunderstood, it is important to make several additional clarificatory remarks. First, it is worth underscoring the fact that if the impacts of climate change were entirely due to natural phenomena and were not traceable to human causes then the preceding argument would not succeed. HR1 states that persons have a human right that *other people* do not deprive them of their life and so if persons lose their life because of purely natural causes then HR1 is intact. Similarly, HR2 states that persons have a human right that *other people* do not act so as to create serious threats to their health. And, as we have just seen, HR3 holds that all persons have a human right that *other people* do not act so as to deprive them of the means of subsistence. Climate scientists are unequivocal that the current and projected future climate change stems from human activities and, given this, the three preceding claims all hold. The threats to life, health and subsistence that many face, and that many more may face unless mitigation and adaptation occur, are threats that are the products of the actions of other people.³⁹

³⁸ Bill Hare, 'Relationship between Increases in Global Mean Temperature and Impacts on Ecosystems, Food Production, Water and Socio-economic Systems' in H. J. Schellnhuber, W. Cramer, N. Nakicenovic, T. Wigley and G. Yohe (eds.), *Avoiding Dangerous Climate Change* (Cambridge University Press, 2006), 179.

³⁹ The IPCC states that 'It is *very likely* that anthropogenic greenhouse gas increases caused most of the observed increase in global average temperatures since the mid-20th century', Susan Solomon, Dahe Qin and Martin Manning, 'Technical Summary,' in Susan Solomon, Dahe Qin, Martin Manning, Melinda Marquis, Kristen Averyt, Melinda M. B. Tignor, Henry Leroy Miller Jr and Zhenlin Chen (eds.), *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2007), 60. Note that it is arguable that it would be possible for people to violate these three human rights even if climate change were not anthropogenic. Humans can violate the three human rights in two different ways. The first (and most obvious) route is for humans to emit high levels of greenhouse gases and to destroy carbon sinks, which will in turn produce high temperatures, increased precipitation and severe weather events. The second route is for humans to design social and political institutions that leave people vulnerable to the physical impacts of climate change. Suppose that climate change were non-anthropogenic (and so route 1 was inapplicable), but politicians could implement an effective programme of adaptation and design

Second, it is worth emphasizing and repeating the point that the aim of the preceding argument is to show how climate change undermines human rights, while at the same time appealing to premises that are as uncontroversial as possible. For that reason I have focused on the three rights given above and not on other more contentious candidates; I have also relied on what I take to be the most uncontroversial formulations of those rights. The aim is to identify absolutely fundamental human rights that can enjoy ecumenical support from a wide variety of different ethical perspectives. The rights not to be killed, not to have one's health jeopardized and not to be deprived of the means necessary for subsistence are all, I suggest, rights that can be adopted from within a wide variety of different conceptions of the good and ethical world views.

Third, having noted this, it is nonetheless worth mentioning that there are other possible human rights implications of climate change. For example, it is arguable that climate change jeopardizes a human right to development (HR4). Furthermore, one might argue that there is a human right not to be forcibly evicted (HR5), and that climate change violates this because people from coastal settlements and small island states will be forced to leave.

Fourth, it should be stressed that to say that climate change jeopardizes human rights is, of course, not to say that it may not also be criticized on a variety of other grounds. To take just one example, the stance defended here is, for instance, compatible with the claim that anthropogenic climate change is objectionable because it is wrong for humanity to treat the natural world in such a hubristic fashion.⁴⁰ My claim is that the human rights impacts of climate change are serious and should be addressed: it is not that they are the only morally relevant impacts of climate change.

Supplementary considerations

In the previous section I argued that climate change threatens the enjoyment of fundamental human rights. The case for a 'human rights'-centred

institutions that would safeguard the vital interests of people in life, health and subsistence, but chose not to do so. They can then be said to violate the human rights of others to life, health and subsistence for they are acting in such a way as to create threats to life, health and subsistence.

⁴⁰ This view has been defended by Dale Jamieson in 'What's Wrong with Climate Change?' (unpublished paper presented at conference on 'Global Justice and Climate Change', Oxford, September 2007).

analysis of the impacts of climate change can, however, be strengthened further, and in this section I want to draw attention to the additional insights that a human rights approach brings over cost–benefit and security-based analyses.

A human rights analysis enjoys three related advantages over cost–benefit analysis (CBA). These all stem from the fact that the latter aggregates the costs and benefits felt by individuals and then selects the policy that maximizes the good. It has long been recognized that one implication of this kind of aggregative consequentialist approach is that it could call for outcomes in which some suffer greatly, but their disutility is outweighed by enormous benefits to others. Unlike a human rights approach, a CBA has only a partial and contingent commitment to the basic interests and entitlements of the most vulnerable. This problematic aspect of CBA manifests itself at several points in discussions about climate change. Consider the three illustrations of this flaw below.

(1) *Climate impacts*. One example of this kind of problem can be found in Bjørn Lomborg’s book, *Cool it*. Lomborg argues that although climate change leads to loss of life from heat stress, it also leads to a much greater decrease in mortality from cold during the winter and this good outweighs the bad.⁴¹ Anthropogenic climate change should, therefore, not be condemned. Indeed, other things being equal, it is morally required. To propose this, though, is to propose engaging in activities which one knows will directly kill some and harm the health and ability of others to subsist. This would strike many as morally unacceptable even if it has the side-effect of saving some lives. A human rights approach, however, rules out such policies.⁴²

(2) *Intergenerational equity*. A second illustration of the point in hand concerns the question of whether it is appropriate to devote resources to mitigation now for the benefit of future people. It is sometimes argued that because, and to the extent that, future generations are wealthier than current generations it would be wrong to mitigate.⁴³

⁴¹ Bjørn Lomborg, *Cool it: The Skeptical Environmentalist’s Guide to Global Warming* (London: Marshall Cavendish, 2007), 13–18.

⁴² See also Edward A. Page, *Climate Change, Justice and Future Generations* (Cheltenham: Edward Elgar, 2006), 34.

⁴³ For this viewpoint see Bjørn Lomborg, *The Skeptical Environmentalist: Measuring the Real State of the World* (Cambridge University Press, 2001), 314; William Nordhaus, ‘Discounting in Economics and Climate Change’, *Climatic Change*, 37:2 (1997), 317; Nordhaus, ‘The Question of Global Warming: An Exchange’, *New York Review of Books*, 55:14, 25 September (2008), 93.

This, however, is not a compelling argument if it turns out that future generations are wealthier than current generations but that some in the future are deprived of the basic necessities of human life. By virtue of its aggregative nature, a CBA approach is concerned only with the total amount of utility and, therefore, the total wealth of current and future generations, and it is indifferent to the plight of the very severely disadvantaged if their disutility is outweighed by the utility of others. A human rights approach, however, is not vulnerable to this charge because it establishes moral thresholds below which persons should not fall.

(3) *Risk and uncertainty.* A third illustration of the point at hand arises from the risks and uncertainties associated with climate change. Climate scientists repeatedly stress that the projections of future changes to the Earth's climate are not certain and that they are characterized by both risk and uncertainty. A CBA approach will respond to risks by multiplying the probability of an event with the utility/disutility of that event, thereby arriving at the expected utility. However, by doing so it ignores a morally relevant aspect of current climate change, namely that *some* persons are imposing grave risks on *others*. It matters a great deal whether those who are taking risks are exposing just themselves to serious risks or whether they are exposing others to serious risks. In the former case, one might say that as long as the risk-takers are sufficiently well-informed and rational then their choice is permissible. The second situation is, however, quite different, for some are posing a threat to the rights of *others*. A CBA cannot capture the relevance of this distinction since its concern is simply with the aggregate level of expected utility. A human rights approach, however, captures the importance of this distinction because it disaggregates the impacts of climate change and is concerned with ensuring that none fall beneath a certain threshold. As such it would condemn as unjust a situation in which some (who are advantaged) expose others (who are vulnerable) to risks that threaten the latter's basic interests. Similarly, it would permit the first kind of risk-taking on the grounds that persons are within their rights to expose themselves to risk. A human rights perspective can thus deal better with the risk and uncertainty associated with climate change.

(4) If we turn now from CBA to the security-oriented approach presented in the introduction, we find a similar problem but for a different reason. This, too, will generate only a contingent and partial commitment to protecting the most vulnerable. It gives us reason to be

concerned about climate change only if, because, and to the extent that, it results in violent conflict.⁴⁴ It follows from this that in those cases where climate change causes death, disease, malnutrition and starvation, but in which it does not lead in turn to conflict it is silent and would devote no resources to assisting those threatened by dangerous climate change. It, therefore, fails to have an unconditional concern with the most disadvantaged. Its commitment to them is contingent on conditions that may not be met.

In short, then, a human rights approach will thus protect the vulnerable, whereas CBA fails to do so because of its aggregative character and a security-based approach fails to do so because its concern is only with climate change that causes conflict.

The implications of a human rights approach

Having argued that climate change undermines fundamental human rights and that this way of thinking about the impacts of climate change enjoys an advantage over CBA, I now want to reflect on several implications of applying a human rights approach to the impacts of climate change. First, and most obviously, a human rights approach requires us to adopt a discriminating approach to the impacts of climate change and would not, therefore, take into account all the impacts of climate change. From a purely human rights approach, only those effects that violate rights should be taken into account.⁴⁵

A second implication of a human rights approach is that it requires us to reconceive the way in which we think about the costs involved in mitigation and adaptation. Some have argued that it would be extremely expensive to prevent dangerous climate change and hence that

⁴⁴ Note: as was stressed in note 3, I am concerned here only with traditional conceptions of security of the type expressed in the Introduction. My arguments are not directed against 'human security' and attempts to argue that climate change jeopardizes human security.

⁴⁵ In general terms this means that impacts that lead to less *preference satisfaction* or less *economic growth* do not count. In more concrete terms this means that impacts on tourism, say, or on the insurance industry are not relevant except insofar as they bear on the realization of people's human rights. (IPCC reports tend to refer to the impacts of climate change on both tourism and the insurance industry: see, for example, Tom Wilbanks and Patricia Romero Lankao, 'Industry, Settlement and Society,' in *Climate Change 2007: Impacts, Adaptation and Vulnerability*). My point is not that impacts on tourism do not matter, but that we need to distinguish between those impacts on the tourist industry that undermine human rights (for example, those whose livelihood depends on it) and those which do not.

humanity should not do this. If, however, it is true that climate change violates human rights then this kind of reasoning is inappropriate. An example can help illustrate the point. Suppose that someone builds a restaurant in their garden and makes a large profit from this. Suppose, however, that this restaurant releases fumes which threaten the lives of others nearby (thereby jeopardizing their human right to life) and it also leaks pollution into the water supply (thereby violating their human right to health). Those committed to human rights will condemn this as unjust and call for the owner of the restaurant not to engage in such rights-violating behaviour. If the owner protests that this would be very expensive the appropriate reply is that this is not germane. If a person is violating human rights then he or she should desist even if it is costly. Other examples illustrate the point: suppose that (as seems highly likely) the abolition of slavery was immensely costly to slave-owners. It does not follow from this that slave-owners should be allowed to continue in their rights-violating activity.⁴⁶ The implications for mitigation and adaptation are clear. That mitigation and adaptation would be *costly* similarly does not in itself entail that they should not be adopted. If emitting greenhouse gases (GHGs) results in rights violations it should stop, and the fact that it is expensive does not tell against that claim. A human rights approach thus requires us to reframe the issues surrounding the costs of mitigation and adaptation.

A human rights approach to climate change has a third implication. If, as argued above, climate change violates human rights then it follows that compensation is due to those whose rights have been violated. The conventional approach to climate change identifies only two kinds of response to climate change: mitigation and adaptation. The IPCC's Assessment Reports, for example, operate with this dualistic framework. The IPCC defines mitigation as '[a]n *anthropogenic* intervention to reduce the anthropogenic forcing of the *climate system*; it includes strategies to reduce *greenhouse gas sources* and emissions and enhancing *greenhouse gas sinks*'.⁴⁷ Adaptation is then defined as an '[a]djustment in natural or *human systems* in response to actual or expected climatic stimuli or their effects, which moderates harm or

⁴⁶ Part of the point here is about baselines. It is true that the slave-owners will be much worse off compared to the status quo prior to abolition but the point is that this is an illegitimate and inappropriate baseline to employ to assess what their entitlements should be.

⁴⁷ For this definition see 'Appendix I: Glossary' in *Climate Change 2007: Impacts, Adaptation and Vulnerability*, 878.

exploits beneficial opportunities'.⁴⁸ Broadly put, mitigation seeks to minimize changes to the climate system, and adaptation seeks to adjust human institutions in order to cope with the changes to the climate system. This, however, is too narrow a framework, for if there is insufficient mitigation and thus changes to the climate occur, and if, further, there is insufficient adaptation, then the fundamental human rights to life, health and subsistence will be violated. And where human rights have been violated then those who have been wronged (if they are still alive) are entitled to compensation. A human rights approach thus generates duties of mitigation and duties of adaptation, and (given the changes to the climate that are in process and given the likely lack of adequate adaptation) it also entails duties of compensation.

It is important to stress that compensation is fundamentally different from adaptation. The point of adaptation is to prevent the changes to the natural world having a malign impact on people's vital interests and human rights. If adaptation is successfully implemented then people's rights would be protected. The case for compensation, by contrast, arises when and because persons' rights were not protected. One might put it thus: the point of adaptation is to protect and uphold rights, and the point of compensation is to redress the fact that people's rights have been violated.

This third point draws our attention to a fourth implication of adopting a human rights approach to climate change: namely, that it affects the way in which one should think about inflicting harms on others and the role that compensation may play in our decision-making. On one way of thinking about harms, if one imposes a cost on people but also bestows on them a benefit then the two may cancel each other out and the affected person has no cause for complaint. This assumes that harms and benefits are commensurable and the shortfall represented by a harm is erased by the allocation of a benefit. A human rights approach adopts a different approach to the imposition of harms. For if one has a human right not to suffer a certain harm then it is wrong to violate that with a view to giving a compensatory sum to counter-balance the harm. To give an example: it is obviously impermissible for one person to assault another person with a view to then giving them a large benefit in order to somehow cancel out the harm. Similarly, one cannot destroy someone else's property and then simply write a

⁴⁸ For this definition see 'Appendix I: Glossary', 869.

cheque and think that the victim has no cause for complaint. He or she does. The point here is that if a person has a human right (and, indeed, any other kind of right) then that generates a duty to respect that right, and it is not acceptable to violate that duty with a view to then making compensation. Of course, as was argued in the previous paragraph, if people do in fact violate rights then there is a case for compensation. This, however, does not give one permission to engage in rights violations and it does not undermine the key point that a human rights approach rejects the trade-off between burdens and benefits that other approaches endorse.⁴⁹

Let us turn now to a fifth corollary of a human rights approach to climate change. A human rights approach guides not simply our evaluation of the impacts of climate change, but also the distribution of the duties to uphold the human rights threatened by climate change. It should inform who is obligated to pay for the costs of mitigation and adaptation. The central point here is that if we accept a set of fundamental human rights then it follows that any programme to combat climate change should not itself also violate these rights. Thus, any international treaty distributing emission rights and any national level climate action plan should not jeopardize the human rights to health, life and subsistence. In practice this requires that the least advantaged – those whose human rights are most vulnerable – should not be required to bear the burden of combating climate change.

In one final point, it is worth remarking that a human rights perspective provides a useful way of conceptualizing Article 2 of the United Nations Framework Convention on Climate Change (UNFCCC). The latter states that the objective of the UNFCCC is to achieve a ‘stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent *dangerous anthropogenic interference* with the climate system’ (UNFCCC (1992), Article 2: my emphasis). What counts as a ‘dangerous’ anthropogenic interference is clearly, in part, a normative issue. It cannot be resolved by science alone for at most that can tell us the types of changes that are likely to occur. To determine when the changes are ‘dangerous’ we need some normative principle or principles. My proposal, in this context, is that dangerous climate

⁴⁹ For illuminating discussion see Clive L. Spash, *Greenhouse Economics: Value and Ethics* (London: Routledge, 2002), 231–6 and Henry Shue, ‘Bequeathing Hazards: Security Rights and Property Rights of Future Humans’ in Mohammed H. I. Dore and Timothy D. Mount (eds.), *Global Environmental Economics: Equity and the Limits to Markets* (Oxford: Blackwell Publishers, 1999), 40–3.

change should be interpreted as climate change that systematically undermines the widespread enjoyment of human rights.

Concluding remarks

The important links between climate change and human rights have been neglected. In this paper, I have sought to address this lacuna. I have defended three distinct conclusions:

- (1) Climate change jeopardizes human rights and in particular the human rights to life, health and subsistence (see ‘Climate change and human rights’, above).
- (2) Analysing the impacts of climate change in terms of its effects on human rights enjoys advantages over other ways of evaluating the impacts of climate change (see ‘Supplementary considerations’, above).
- (3) Endorsing a human rights framework for evaluating the impacts of climate change has implications for our understanding of who should bear the burdens of climate change and what kinds of policies are appropriate (see ‘The implications of a human rights approach’, above).⁵⁰

As I noted above, I am not claiming that a human rights approach captures *all* the morally relevant impacts of climate change. My argument is simply that a human rights perspective has important insights and any account of the impacts of climate change which ignores its implications for people’s enjoyment of human rights is fundamentally incomplete and inadequate.

⁵⁰ In focusing on these links between climate change and human rights I am not claiming that this exhausts the relevant connections between human rights and climate change. Two other connections are worth noting. First, it is arguable that persons have a human right to have an input into any decision-making process that affects their fundamental interests. On this basis, one may argue that persons have a human right to shape the political process by which decisions about mitigation and compensation are made. One might call this the human right to procedural justice. Second, it is also arguable that the extent to which people are able to adapt to dangerous climate change is a function of the extent to which their basic human rights are respected. The more that their rights have been violated the less they are able to adapt to climate change. (This second theme is explored by Jon Barnett in ‘Human rights and vulnerability to climate change’, Chapter 9, below)