SYMPOSIUM

The Real Challenge of Climate Change

Thom Brooks, *Durham University*

Climate change is confirmed by a global scientific consensus. Although no serious disagreement about whether climate change exists, deep controversy remains about what should be done about its many harmful effects. These effects are wide-ranging and include, for example, the increasing threat to coastal wetlands from rising sea levels, the greater likelihood of droughts harming agricultural production, and the spread of tropical diseases (Pachauri and Reisinger 2008). One further effect is the increasing risk of triggering an environmental catastrophe, such as an ice age, that might result in major loss of human lives.

These potential harmful climate change-related effects are widely considered to be the most pressing public policy challenges we face today (Posner 2006; Singer 2002; Sunstein 2005). Public policy recommendations claim to offer distinctive "solutions" to the problem of climate change and its effects. They claim that these effects can be addressed sustainably: climate change is a global phenomenon to be controlled or even stopped.

This article surveys the two leading approaches on policy solutions to climate change. However, these approaches both rest on a shared mistake, namely, that climate change is a problem that can be solved. Climate change is not a feature of our world that we might end, but it is something to be better managed. The real challenge of climate change is not to produce a world without it, but to sustain ourselves despite it. Therefore, climate change represents an even greater challenge that most people may not realize.

CLIMATE CHANGE: A PROBLEM TO BE SOLVED?

Climate change has attracted a growing literature exploding with ideas about how its problems might be best solved. The two leading approaches are mitigation and adaptation. Both are discussed in turn.

Mitigation Strategies

Mitigation strategies aim to combat climate change through reducing our environmental impact by our greater conservationism. These strategies are divided into at least two groups. The first group supports mitigation through the idea of an "ecological footprint" (Vanderheiden 2008; Wackernagel and Rees 1996). This footprint is a measure of human carrying capacity: the maximum rate of resource consumption that can be sustained indefinitely (Rees 1992). Sometimes this is also calculated through shares of the absorption capacity of the atmospheric sink (Singer 2002, 28). The idea is that if each person lived within the boundaries of his or her footprint then the planet would achieve a sustainable future free from further climate change and its related harms. The ecological footprint approach is conservationist because it requires that present levels of human consumption and environmental impact to be much reduced.

Furthermore, potentially attractive benefits of this approach are its appeal to equality and fairness. For example, each person must live within the same sized footprint. No one is entitled to a greater share than others because of wealth or status. The ecological footprint claims to respect equality and fairness because it treats each individual the same.

The ecological footprint view is also thought to be practically useful. Not all persons may use their full share. Then, they might be permitted to trade some part of their unused share to others in a carbon-trading scheme (Hepburn 2007). This strategy might make it easier for those far beyond their footprint to become more compliant in the future while providing material benefits to those who use less.

A second group endorses mitigation through the use of the so-called polluter pays principle (Caney 2008). This principle states that those who pollute have a negative duty to provide some compensation to reduce harms related to their pollution.[1] The polluter pays principle is conservationist because it provides an incentive to deter carbon emissions to secure more sustainable global resource use. Furthermore, the payments from polluters mitigate the potential damage generated by carbon emissions.

These two mitigation approaches claim to help solve the problems associated with climate change. Climate change and its related effects are brought under sustainable control if we globally lived within our ecological footprints or if we enforced a polluter pays principle.

Adaptation Strategies

Adaptation is the leading alternative to mitigation. This approach states that we might sustainably live in a climate-changed world through greater investment in technological advancements that permit us to adapt to the changing conditions (Kahn 2010; Levitt and Dubner 2010, 169). Adaptation takes many forms, such as greater urbanization and reliance on genetically modified foods and nuclear energy (Stern 2010, 54). If the problem is rising sea levels, then adaptation might recommend constructing new flood defences or even floating cities. Through adaptive living we might be able to sustainably tolerate the effects of climate change.[2] Or, in the words of Lester Brown, "The world now has the technologies and financial resources to stabilize climate" (2011, 198). Our climate is then something we might ultimately control. Climate change

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is a major global challenge, but it is a challenge we might face and overcome.

Public policy advocates often prioritize either mitigation or adaptation in their recommendations. However, most incorporate some measure of both. One reason is that "pure" mitigation is not an option: climate change is already happening so any reasonable public policy requires some degree of adaptation to help us adapt to existing changes (Gardiner 2004, 573; Schlosberg 2013). Nonetheless, both mitigation and adaptation advocates claim the problems of climate change-related harms may be solved; both disagree, however, on which particular proposal is the most compelling.

THE REAL CHALLENGE AHEAD

Mitigation and adaptation proponents disagree on which particular set of policies is most preferable, but they agree about the nature and horizon of the problem because both understand climate change as presenting a problem to be solved. The answer to climate change-related harms is to endorse a view about ecological footprints, the polluter pays principle, or greater adaptation to environmental changes. Each strategy claims to provide a sustainable solution to this major global challenge. If our political leaders would support one such approach, then climate change-related harms might be overcome.

Climate change is perhaps better conceived as a challenge rather than a problem. Challenges are obstacles that may be always present. Problems are situations that call for solutions. Climate change resists any long-term solution and is more accurately understood as an issue that may forever remain on our horizon.

This understanding about climate change rests on an important mistake. The Earth has experienced climate change and ice ages before human civilization. The idea that climate change and the risk of a future environmental catastrophe, such as an ice age, might be stopped if only human environmental impact were greatly reduced is based on a false assumption that no such change and risk would be present if human impact was absent. The fact that human impact is responsible for present climate change does not mean that climate change would be avoided if only there was less impact. Instead, this means that the current risks of further climate change-related harms might be much less if our impact was less and our ability to adapt was improved.

We cannot stop the climate from changing, but we might better manage how it changes. A risk of an impending future ice age may always exist. It does not follow that there is nothing that we can or should do to better manage the risks we face. Even if a future ice age were unavoidable, we may be able to ensure its arrival is not hastened and its potential damage minimized.

Our obligations to distant others is no less, and perhaps even greater, when the need to manage our response to changing climatic conditions is an ever-present feature of international policy rather than an issue "here today, but perhaps resolvable tomorrow." Because the climate may change does not entail we should disregard how it might change. It is no less justifiable to increase harm whether or not the climate might only be better managed rather than controlled. Indeed, the real challenge of climate change is much greater than recognized.

Proposals for sustainability construct a false idea about our relation to the natural environment. Climate change arises from both natural and human causes. Again, our duties are more rather than less because these causes are beyond our full control even if some global conservationist agreement was secured. Indeed, an asymmetry between the ease through which might increase climate change-related harms and the difficulty of securing reduced environmental impact exists (Wapner and Willoughby 2005). These problems are compounded by the underdevelopment of theories about addressing climate change more generally (Gardiner 2011, 7). Climate change presents a perfect moral storm and in more ways than one.

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Our goal should not be to search for a permanent solution that lies beyond our grasp, but instead to better understand the policy alternatives more within our reach. Perhaps we might never fully insulate ourselves from climate change-related harms. But we can and should better manage climate change to minimize our exposure to risk. Climate change may not be a problem we can solve, but it is an issue we might manage better.

CONCLUSION

There is a global consensus about climate change and its harmful effects. Although disagreement about how best to address climate change through public policy is apparent, a wide consensus exists that climate change is a problem that can be solved. Different proposals—from ecological footprints to the polluter pays principle and beyond—claim that they offer a sustainable future where climate change-related harms might be kept at bay.

This view rests on an important error. Climate change is not a problem we might solve, but rather an ever-present feature of international policy that we must better manage to minimize exposure to risks. This conclusion is not pessimistic, but realistic. Climate change proposals must be reconceived within the realms of the practically possible rather than

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promise more than might be delivered. Furthermore, this conclusion is not defeatist, but a call for action. If climate change is ever present, then we must be ever ready.

The real challenge of climate change is not how it might be stopped, but how it might be better managed. ■

NOTES

1. One problem specific to the polluter-pays-principle approach is its claim that we have a negative duty to desist from carbon emissions because these emissions may generate potential harms to others. This is a mistake because a proponent might argue that a negative duty to avoid contributing harms to others need not entail conservationism, but rather greater adaptation so that none are subjected to harm from future emissions (Brooks 2012).
2. This approach has attracted controversy and criticism, in part, because it rests on our ability to make certain cost-benefit assumptions and a questionable faith that technological advances would, in fact, yield lower energy consumption with greater sustainable (Wilkinson and Pickett 2010, 223).

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