Original citation:

Permanent WRAP URL:
http://wrap.warwick.ac.uk/100992

Copyright and reuse:
The Warwick Research Archive Portal (WRAP) makes this work by researchers of the University of Warwick available open access under the following conditions. Copyright © and all moral rights to the version of the paper presented here belong to the individual author(s) and/or other copyright owners. To the extent reasonable and practicable the material made available in WRAP has been checked for eligibility before being made available.

Copies of full items can be used for personal research or study, educational, or not-for-profit purposes without prior permission or charge. Provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.

A note on versions:
The version presented here may differ from the published version or, version of record, if you wish to cite this item you are advised to consult the publisher’s version. Please see the ‘permanent WRAP URL’ above for details on accessing the published version and note that access may require a subscription.

For more information, please contact the WRAP Team at: wrap@warwick.ac.uk
Cascading biases against poorer countries

Correspondence to Nature Climate Change

Sivan Kartha*, Stockholm Environment Institute, United States (sivan.kartha@sei.org)
Tom Athanasiou, Climate Equity Reference Project, United States
Simon Caney, University of Warwick, United Kingdom
Elizabeth Cripps, University of Edinburgh, United Kingdom
Kate Dooley, University of Melbourne, Australia
Navroz K. Dubash, Centre for Policy Research, India
Teng Fei, Tsinghua University, Beijing, China
Paul G. Harris, Education University of Hong Kong, Hong Kong
Christian Holz, Carleton University, Canada
Bård Lahn, CICERO Center for International Climate Research, Norway
Darrel Moellendorf, Goethe Universität Frankfurt am Main, Germany
Benito Müller, Environmental Change Institute, University of Oxford, United Kingdom
J. Timmons Roberts, Brown University, United States
Ambuj Sagar, Indian Institute of Technology, Delhi, India
Henry Shue, Centre for International Studies, University of Oxford, United Kingdom
Peter Singer, Princeton University, United States and University of Melbourne, Australia
Harald Winkler, University of Cape Town, South Africa
The recent article by Robiou du Pont et al\(^1\) (hereafter, RdP) suggests that wealthier countries (for example the EU) have made more “equitable” contributions to the Paris goals than poorer countries (India, China), with most other developing countries somewhere in between. These results are counter-intuitive given that developed countries have the majority of responsibility for the atmospheric build-up of greenhouse gases\(^2\), and the majority of the financial wherewithal to help solve the climate problem\(^3\), yet their Paris pledges amount to fewer tons of mitigation than developing countries\(^4\).

RdP’s objective to examine multiple equity approaches is laudable, however, the methodology reflects a selection of approaches biased in favour of wealthier, higher-emitting countries in three ways.

First, the approaches\(^1\) selected to represent the IPCC equity categories are skewed by the prominence of “grandfathering” as an allocation principle. Grandfathering, (or the ‘Constant Emission Ratio’ approach)\(^1\), privileges today’s high-emitting countries when allocating future emission entitlements. Despite acknowledging that grandfathering is criticized on equity grounds, it is chosen to represent one of RdP’s five categories, because “it is implicitly followed by many of the developed countries”\(^1\). This rationale is no basis for including a political position in a survey of equity approaches, and by construction it generates outcomes that favour developed countries. Its skewed consequences can be anticipated: for example, grandfathering gives the EU and US four and nine times more per capita allocation, respectively, than India, despite India still combating widespread energy poverty, with hundreds of millions of residents without basic energy services\(^5\).

Multiplying the problem, grandfathering is introduced into two other approaches (“Equal Per Capita” and “Capability”)\(^1\). While these approaches draw upon ethically defensible bases (equality and ability to pay, respectively), the methodology\(^1\) dilutes them by means of a gradual transition period from pure grandfathering to the specified equity approach. (This concession cannot be rationalized on the basis of avoiding technically implausible reduction rates, nor economic efficiency, since RdP analyse transferable emissions allocations rather than physical emissions.) With global emissions declining rapidly toward zero, this slow shift means that nearly half of the remaining carbon budget is grandfathered, rather than being allocated according to each approach’s nominal equity principle. Making grandfathering a central part of three out of the five equity approaches used embeds a bias against poorer and lower-emitting countries.

Second, RdP present only five of the six categories used by the IPCC, excluding one category based exclusively on the Responsibility Principle – that the largest contributors to global GHG concentrations ought to do most to reduce global emissions. This exclusion discounts a key principle of the Rio Convention and UNFCCC, and compounds the bias against poorer, lower-emitting countries.

Third, the “IPCC equity categories”\(^1\) referenced cannot be considered an authoritative and ethically-robust taxonomy of equity approaches in any sense. The IPCC borrowed this categorization from a single study\(^6\) intending simply to present data from an incomplete and non-representative sampling of approaches. The original study cautioned that “the current literature only covers a small proportion of the possible allocation approaches” and observed that “many different categorizations...can be found in the literature”\(^6\). Indeed, the IPCC recognized the ethical importance of several other equity notions relevant for emissions allocations. These include: the relative moral relevance of consumption-based versus production-based emissions, survival versus luxury emissions, progressive versus regressive allocation of mitigation costs, prioritarianism versus egalitarianism, and – not least – the right to development and the critical ethical importance of the eradication of poverty. Incidentally, but importantly, each of these issues engender
ethical arguments that imply greater allocations for poorer and lower-emitting countries compared to the subset of approaches used by RdP. Neglecting them compounds the bias in the results. Ultimately, the article's conclusions are not so much derived as predetermined by the authors' biased normative choices.

These methodological and logical shortcomings of RdP reveal a more profound problem. When reflecting on the relative fairness of countries' pledges and actions, the role of scholarly analysis and quantification is to help clarify the ethical underpinnings and consequences of the choices facing society. It is emphatically not to make those normative choices. However, the RdP paper has made a number of normatively crucial choices, and moreover not explicitly, but rather in a way that obfuscates the ethical underpinnings and their consequences. Whilst presented as a neutral, ecumenical, comprehensive survey that follows an objective IPCC taxonomy, the overall effect, far from illuminating the moral choices confronting society, at best conceals the moral choices and at worst arrogates them.

However, we are in utter agreement with RdP that “equity is still central for the ratcheting process and when discussing the adequate magnitude of climate finance and support”\(^1\). Climate change is a global commons problem, and broad global cooperation is needed to address it. As the IPCC noted, an agreement that is “seen as equitable can lead to more effective cooperation”\(^7\). The chances of keeping warming to tolerable levels vastly improves by pushing forward a robust and productive conversation about fairness and equity\(^8\).