ESRC End of Award Report

For awards ending on or after 1 November 2009

This End of Award Report should be completed and submitted using the grant reference as the email subject, to reportsofficer@esrc.ac.uk on or before the due date.

The final instalment of the grant will not be paid until an End of Award Report is completed in full and accepted by ESRC.

Grant holders whose End of Award Report is overdue or incomplete will not be eligible for further ESRC funding until the Report is accepted. We reserve the right to recover a sum of the expenditure incurred on the grant if the End of Award Report is overdue. (Please see Section 5 of the ESRC Research Funding Guide for details.)

Please refer to the Guidance notes when completing this End of Award Report.

<table>
<thead>
<tr>
<th>Grant Reference</th>
<th>RES-066-27-0007</th>
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<tbody>
<tr>
<td>Grant Title</td>
<td>Equity and Climate Change</td>
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<tr>
<td>Grant Start Date</td>
<td>01 October 2008</td>
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<tr>
<td>Grant End Date</td>
<td>30 April 2012</td>
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<tr>
<td>Total Amount Expended:</td>
<td>£146,203.77</td>
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<td>Grant holding Institution</td>
<td>University of Oxford</td>
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<td>Co-Investigators (as per project application):</td>
<td>Institution</td>
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1. Non-technical summary

Please provide below a project summary written in non-technical language. The summary may be used by us to publicise your work and should explain the aims and findings of the project. [Max 250 words]

My research project on ‘equity and climate change’ has three strands. It, (1), develops an ethical framework to guide climate policy; (2), applies this framework to specific climate policies; and, (3), examines its implications for institutional design.

More specifically: (1) it defends a set of normative principles including, among others, the following four. First, it argues that climate change jeopardizes human rights. Second, it argues that the burden of combating climate change should be borne by those most responsible for causing climate change and those with the greatest ability to pay. Third, it rejects two leading accounts of how the right to emit greenhouse gases should be distributed, and proposes a third account centred around upholding people’s ‘capabilities’. Fourth, it defends an account of intergenerational justice that holds that it is unjust to ‘discount’ the interests of future generations.

(2) Building on these principles it develops an ethical framework that should guide climate policy and applies it to emissions trading (including the CDM), biofuels, and research into (and transfer of) clean technology. It argues, in particular, that climate policies must honour two constraints: they must (i) reduce the prospect of dangerous climate change, and, (ii), distribute the burden involved in preventing climate change equitably, and not compromise core interests and rights.

(3) Finally, it explores ways of reforming existing political institutions to make them both more effective at combating climate change and more procedurally fair. This includes considering ways of facilitating global agreement and representing the interests of future generations.

2. Project overview

a) Objectives

Please state the aims and objectives of your project as outlined in your proposal to the us. [Max 200 words]

My original proposal specified six “objectives”:

[1] to develop a new (equity-centred) framework for thinking about climate change, to complement existing scientific and economic analyses.

[2] to apply the tools of contemporary political theory (notably Rawls’s method of reflective equilibrium) and to combine it, in an innovative way, with insights from a variety of different disciplines (including climate science, law, economics, psychology and international relations);

[3] to defend a particular account of climate equity. More specifically the aim was: (a) to develop principles of justice that can be applied to climate change (on questions such as, how to evaluate its impacts, how burdens should be shared and greenhouse gases be distributed, and what principles of intergenerational justice should be adopted),
(b) to provide a framework for the evaluation of policy options and to apply this to specific policies, and
(c) to draw on these principles and policies to propose institutional reforms.

[4] to disseminate my research to academic journals, policymakers, political institutions, think tanks, and the general public;

[5] to enhance research capacity in junior scholars, by supervising a PhD student and fostering the research of junior scholars; and,

[6] to develop research on the ethical dimensions of climate change.

b) Project Changes

Please describe any changes made to the original aims and objectives, and confirm that these were agreed with us. Please also detail any changes to the grant holder’s institutional affiliation, project staffing or funding. [Max 200 words]

There were no changes to the project’s aims and objectives. I complied with the six objectives specified above, and: developed a new framework for analysing climate change [1]; applied the methodology set out in [2]; provided the account of ‘climate equity’ promised in [3]; disseminated my research to user-groups [4]; engaged in capacity building for junior scholars [5]; and, promoted research on equity and climate change [6].

I did not hold as many conferences and seminars as originally envisaged, but I engaged in much more work for bodies like the World Bank, Nuffield Council on Bioethics, UN, and ICHRP than I had anticipated would be possible. As a result my research on equity and climate change had much greater impact. Producing research, engaging with non-academic users, and organizing conferences took up all of my time.

My institutional affiliation did not change.

I was originally awarded two studentships. I was given permission to appoint only one because none of the applicants for the studentship on intergenerational justice met the required conditions. I covered the subject matter that would have been studied by the second student and published several papers on this topic.

I was given an extension to facilitate greater dissemination.

c) Methodology

Please describe the methodology that you employed in the project. Please also note any ethical issues that arose during the course of the work, the effects of this and any action taken. [Max 500 words]

The methodology that I employed has three strands.

First, my research is primarily an exercise in political theory. Given this, like most analytical political theorists, I employ Rawls’s method of ‘reflective equilibrium’. This requires theorists to propose theories and test them against considered convictions, and when the two clash to revise either the theories or the convictions until they cohere and are in equilibrium. In my research on ‘equity and climate change’ I applied the method of reflective equilibrium as follows:

In Year 1: developed a set of normative principles to guide climate policy. The aim here was to
develop a normative framework.

In Year 2: I then examined the implications of these normative principles for the evaluation of climate policies (such as emissions trading schemes, the Clean Development Mechanism, biofuels policies, technology policy). In line with the method of reflective equilibrium, the idea here was not simply, (a), to apply the principles to the policies in a uni-directional way. It also included, (b), examining whether the original normative principles developed in Year 1 needed to be revised once we have a comprehensive understanding of the climate policies needed to realize them. Following this method, I expanded and developed my normative framework.

In Year 3: I turned to consider the institutional implications of the normative framework developed in Year 1 (and refined in Year 2) and the policy proposals developed in Year 2. I thus examined what institutional structure would be best placed to realize the principles and policies defended in previous years. As in Year 2, this process also involved continuing the evaluation of the underlying normative framework in the light of an understanding of the institutional implications of that framework.

Second: Since my research was an exercise in applied political theory I have integrated research from climate science, economics, international law, political science, psychology and philosophy where appropriate. This raises the methodological question of how those who are not experts in one discipline (eg climate science) should treat claims advanced in that discipline. To address this serious methodological issue I drew on, and modified, the accounts of social epistemology and “testimony” developed by Alvin Goldman and Elizabeth Anderson. They defend a set of guidelines by which one can reliably assess claims made by other disciplines. In addition to this, I worked together with scholars from a variety of different disciplines (including economics, development, law, environmental science, technological innovation and plant sciences). I have also presented my work to climate modellers, economists, geographers, international relations experts, and law scholars (among others) to help ensure that my various empirical assumptions are well-founded.

Third, my methodology was to involve users at all stages of the research process, including, (a), the formulation of my research questions and identification of the key issues and, (b), the evaluation of the principles, policies and institutional proposals I developed in my research. Furthermore, I consulted a wide variety of very different non-academic institutions – including NGOs, business, international organizations, policy advisers, politicians, and think tanks.

d) Project Findings

Please summarise the findings of the project, referring where appropriate to outputs recorded on the ESRC website. Any future research plans should also be identified. [Max 500 words]

In my research I made the following findings:

**Principles**: First, I derived a set of normative principles. As such, I

1. developed an alternative way of conceiving of climatic impacts and “dangerous anthropogenic interference”, arguing that climatic impacts and DAI should be assessed in terms of the realization of human rights;
2. defended a precautionary policy for dealing with the risks and uncertainties surrounding climate change;
3. defended a zero pure time discount rate and found that arguments for delaying mitigation were unpersuasive;
4. developed an account of burden sharing that combines an Ability to Pay Principle with a Polluter Pays Principle;
5. argued that the fair distribution of rights to emit greenhouse gases should not be treated in isolation from other societal goals but should be addressed in conjunction with them (Integration), and, moreover, it is a mistake to focus on the distribution of greenhouse gases rather than the ends that they serve.
Policies:
I then applied these principles to policies. As such, I
(6) defended emissions trading schemes from certain common objections and developed a
normative framework (building on 1-5 above) for evaluating them;
(7) developed a normative framework for evaluating biofuels policy; and
(8) argued that successfully mitigating and adapting to climate change requires a substantial
investment in clean technology and its transfer.

Institutions
I then analysed the implications for institutional design. As such, I
(9) argued that equity requires a greater recognition of the role of procedural justice;
(10) proposed ways of facilitating the realization of both international and intergenerational
justice.

Future
My future research plans include
* research on the appropriate ethical framework to evaluate other environmental challenges in
  addition to climate change
* exploring the normative implications of population demographic change for environmental
  sustainability
* developing a normative framework for geoengineering
* exploring ways of reforming political institutions to make them better equipped to address
  intergenerational problems

Research Outputs
Space precludes listing all the publications that resulted from this project (and in which I have
argued for the conclusions reported above). The grant resulted in
* 8 articles in academic journals
* 8 chapters in edited books
* a co-edited book on Climate Ethics (Oxford University Press)
* a special issue on ‘Morality and Climate Change’ of The Monist (2011)
* a background paper for the World Bank for its 2010 World Development Report
* a co-authored report on Biofuels: Ethical Issues (2011) for the Nuffield Council on Bioethics
* a background paper for the International Council on Human Rights Policy on technology transfer
* a section on ‘procedural justice’ for Chapter Three of the IPCC’s Fifth Assessment Report of
  Working Group III
* an Oxford Amnesty Lecture (which will be published in a volume with the other 2012 lectures)
* a paper currently under review
It also enabled me to complete my part of a co-authored book on Global Justice and Climate
Change (Oxford University Press- forthcoming 2013) and the chapter on global environmental
justice in my forthcoming On Cosmopolitanism (Oxford University Press).

e) Contributions to wider ESRC initiatives (eg Research Programmes or Networks)
If your project was part of a wider ESRC initiative, please describe your contributions to the
initiative’s objectives and activities and note any effect on your project resulting from
participation. [Max. 200 words]

I held a Climate Change Leadership Fellowship. My research contributed to the initiative’s
objectives by
[1] producing high calibre research on equity and climate change.
[2] disseminating my research to a wide variety of user communities and seeking to influence
policy discussions.

[2a] In the UK: I was an invited speaker at the Policy Network Conference ‘The Politics of Climate Change’ (June 2009). (Other speakers included Tony Blair and Adair Turner.) I also worked with, among others, TUC, JRF, CSE, E3 Foundation, Oxford Institute for Energy Studies, Fabian Society, and Ed Miliband’s advisors.

[2b] At the global level: I engaged with user groups including, among others: the World Bank, IPCC, OHCHR, UNICEF, UNESCO, ICHRP, Center for Global Development, the Danish Institute for Human Rights, South Centre, the chief negotiator for the G77, and the legal advisor to the Chair of the UNFCCC’s AWG-LCA. I also spoke at the Fourth United Nations Conference on the LDCs.

[3] building capacity through the supervision of my PhD student and by organizing workshops which enabled junior scholars to gain feedback on their work from experts.

Participation in this initiative enabled me to make contact with several of the other fellows and follow their research.

3. Early and anticipated impacts

a) Summary of Impacts to date

Please summarise any impacts of the project to date, referring where appropriate to associated outputs recorded on the Research Outcomes System (ROS). This should include both scientific impacts (relevant to the academic community) and economic and societal impacts (relevant to broader society). The impact can be relevant to any organisation, community or individual. [Max. 400 words]

**Scientific Impacts**

My research has been published in leading academic journals (eg New Political Economy, CRISPP and Ethics and International Affairs) and leading publishers (OUP, CUP). My papers have been widely cited and generated considerable discussion. For example,

* my paper in the Journal of Social Philosophy (2009) has 24 citations and has the highest citations per annum of any article in this journal
* my paper in the Journal of Global Ethics (2009) has 33 citations and is the most cited paper in the journal’s history (as well as having the highest citations per annum)
* one of my papers on human rights and climate change (2009) has 21 citations.
* a symposium on my work on ‘equity and climate change’ was held at the Goethe-Universität, Frankfurt (4th November 2010).

* Through the workshops and conferences I have organized I built up a network of researchers working on equity and climate change. In particular I have helped develop the careers of junior researchers by organizing workshops in which they could gain feedback from established figures.

**Societal Impacts**

[1] I am a Contributing Author for Chapter 3 on ‘Social, Economic and Ethical Concepts and Methods’ of the IPCC Fifth Assessment Report of Working Group III.

[2] I was a coauthor of the Nuffield Council of Bioethics report Biofuels: Ethical Issues. I was responsible for devising the six principles that define its ethical framework. The Chair of the House of Commons Energy and Climate Change Select Committee (Tim Yeo MP) endorsed the report’s six principles (“The Nuffield Council’s six principles seem to me to be completely beyond argument”, Hansard record for Tuesday 21 Feb 2012).


[4] A proposal of mine concerning protecting future generations from climate change was quoted by the Rt Hon Ed Miliband in his speech ‘The Road to Copenhagen’ (LSE, 17 November
b) Anticipated/Potential Future Impacts

Please outline any anticipated or potential impacts (scientific or economic and societal) that you believe your project might have in future. [Max. 200 words]

[1] My research has been used by many policy oriented institutions (including the World Bank, IPCC, OHCHR, UNEP and the WRI, Joseph Rowntree Trust, UNICEF, and the TUC). I anticipate that these institutions (or similar bodies) will continue to draw on my analysis. For example, my work is discussed in several chapters of the forthcoming IPCC Fifth Assessment Report.

[2] I am engaged in three follow-up projects which will build on my ESRC research and further disseminate my findings:
(a) a project on ‘Responding to the Challenges for International and European Climate Policy after Copenhagen’ funded by the Austrian Climate Research Programme. My research focuses on developing criteria for climate policy in non-ideal circumstances and for making trade-offs.
(b) I am a PI for a 3 year grant on ‘Human Rights for Future Generations: Climate, Poverty and Armed Conflict’ funded by the Oxford Martin School.
(c) I am a member of a ‘Philosophers Committee’ appointed by Rt Hon Gordon Brown MP and Jeremy Waldron to examine the extent to which the Universal Declaration of Human Rights needs to be updated in light of changes since its ratification in 1948. This will include a discussion of ecological preconditions of human rights.

You will be asked to complete an ESRC Impact Report 12 months after the end date of your award. The Impact Report will ask for details of any impacts that have arisen since the completion of the End of Award Report.
4. Declarations

Please ensure that sections A, B and C below are completed and signed by the appropriate individuals. The End of Award Report will not be accepted unless all sections are signed. Please note hard copies are not required; electronic signatures are accepted and should be used.

A: To be completed by Grant Holder

Please read the following statements. Tick one statement under ii) and iii), then sign with an electronic signature at the end of the section (this should be an image of your actual signature).

i) The Project

This Report is an accurate overview of the project, its findings and impacts. All co-investigators named in the proposal to ESRC or appointed subsequently have seen and approved the Report.

ii) Submissions to the Research Outcomes System (ROS)

Output and impact information has been submitted to the Research Outcomes System. Details of any future outputs and impacts will be submitted as soon as they become available.

or

This grant has not yet produced any outputs or impacts. Details of any future outputs and impacts will be submitted to the Research Outcomes System as soon as they become available.

iii) Submission of Datasets

Datasets arising from this grant have been offered for deposit with the Economic and Social Data Service.

or

Datasets that were anticipated in the grant proposal have not been produced and the Economic and Social Data Service has been notified.

or

No datasets were proposed or produced from this grant.