

## UKCDR written evidence: Climate change, development and COP26

The [UK Collaborative on Development Research \(UKCDR\)](#) here provides written evidence to support the International Development Committee inquiry, *Climate change, development and COP26*.

This evidence focuses on how the portion of UK ODA spent on research (approximately 9-10% of the total UK ODA budget between 2016-2020<sup>1</sup>) meets the Terms of Reference of this inquiry. It draws on UKCDR's recent detailed mapping and analysis of UK ODA and Wellcome-funded research on climate change and international development (2015-2020).<sup>2</sup> This work provides insight into the scope and reach of climate-development research since the 2015 Paris Agreement, increases understanding and opportunities for engagement leading up to COP26, and offers a valuable baseline of UK ODA and Wellcome funding in this area prior to the COVID-19 pandemic, UK ODA budget cuts, and DFID-FCO merger.

### Key messages

- Research is critically important to identify conditions under which both climate and development goals can be achieved and to design strategies to maximise the synergies and minimise the trade-offs between the two.
- Between 2015-2020, the UK committed £535.1m in over 650 ODA-funded climate-development research projects - suggesting a step change increase in funding since the late 2000s.
- Analysis of funding commitments and research demand mapped against the SDGs shows reasonably strong parallels between perceptions of SDG priorities and the funding of climate-development research over the last five years (prior to any budget cuts).
- It is important to leverage COP26 to draw lessons from COVID-19 on the use of science in policy, and to ensure that commitments to "build back better" benefit some of the most vulnerable communities which are often most adversely affected by both COVID-19 and climate change.

### About UKCDR

UKCDR is a group of government departments and research funders working in international development. For over a decade, we have brought UK international development research funders together to discuss priorities and coordinate efforts to garner maximum impact. Our mission is to amplify the value and impact of research for global development by promoting coherence, collaboration and joint action among UK research funders.

We are governed by the [Strategic Coherence of ODA-funded Research \(SCOR\) Board](#). The SCOR Board is chaired by an independent member, Professor Peter Piot, and brings together the Chief Scientific Advisers and Directors of our core members to provide oversight of UKCDR's work and to discuss international development research priorities across their own organisations and coordinate efforts to garner maximum impact. The funding bodies that make up UKCDR's core membership are:

- Department for Business, Energy and Industrial Strategy (BEIS)
- Department for Health and Social Care (DHSC)
- Foreign, Commonwealth & Development Office (on behalf of all devolved administrations)

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<sup>1</sup> According to analysis by UKCDR. It is not yet clear what proportion of the 2021 UK ODA budget will be committed to research.

<sup>2</sup> [UK-funded research on climate change and international development | UKCDR](#)

- UK Research and Innovation (UKRI) (incorporating the seven UK Research Councils, Innovate UK and Research England)
- Wellcome Trust
- Independent non-affiliated experts

UKCDR also convenes a wider stakeholder group and [impartial funder fora](#) for discussion on key themes, identified through our mapping and analysis work, where joint or complimentary research investment has the potential to increase impact for developing countries.

### **Introduction: Climate-development research**

Understanding the relationship between climate change and international development is essential both to achieving the UN Global Goals and meeting the terms of the 2015 Paris Agreement. The World Bank calculates that without climate-informed development 100 million additional people could be forced into poverty by 2030.<sup>3</sup> Poor and marginalised populations, Small Island Developing States (SIDS), and Low-Income Countries (LICs) are among the most vulnerable to the impacts of climate change.<sup>4</sup> Moreover, without innovation, developing countries are increasingly likely to contribute to climate change as they experience population increases, urbanisation, and economic growth. The Intergovernmental Panel on Climate Change (IPCC) 2018 Special Report describes a “broad and multifaceted bi-directional interplay between sustainable development, including its focus on eradicating poverty and reducing inequality in their multidimensional aspects, and climate actions in a 1.5°C warmer world.”<sup>5</sup>

Research is critically important to identify conditions under which both climate and development goals can be achieved and to design strategies to maximise the synergies and minimise the trade-offs between the two. Examples of this may include:

- Exploring low-emission and climate-resilient solutions for food systems, health, livelihoods, and the built environment;
- Developing resilience to extreme weather events in vulnerable areas;
- Generating sustainable economic alternatives in communities with high dependency on fossil fuels for revenue and employment;
- Understanding how challenges, trade-offs, and synergies will change differentially across geographic regions and time at different levels of warming.

Research also includes considerations of climate justice, seeking to ensure an equitable distribution of both the risks and benefits associated with climate mitigation and adaptation.

### **Responses to Terms of Reference**

***The extent to which the Government has made progress on implementing the Committee’s recommendations, particularly those on climate finance, climate justice, the use of ODA to support fossil fuels and making climate change a strategic priority in all aid spending***

UKCDR is well positioned to comment on the extent to which the Government has made progress in making climate change a strategic priority in aid spending *on research*, in the hope that this might be used in conjunction with other evidence to provide a full picture across *all* aid spending.

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<sup>3</sup> [Rapid, Climate-Informed Development Needed to Keep Climate Change from Pushing More than 100 Million People into Poverty by 2030 \(worldbank.org\)](#)

<sup>4</sup> [World-Social-Report-2020-Chapter-3.pdf \(un.org\)](#)

<sup>5</sup> [Chapter 5 — Global Warming of 1.5 °C \(ipcc.ch\)](#)

To date, the UK has been a leading global funder of research on climate change and international development. Between 2015 and 2020, the UK committed £564.2m into over 690 UK ODA and Wellcome-funded research projects on climate change and international development. Of this £535.1m was funded from the UK ODA budget, in over 650 projects. UKCDR estimates that this may represent more than a nine-fold increase in climate-development research ODA funding since the period 2004-05 to 2007-08, when the total allocation of funding for “climate change research relevant to developing countries” was £47.1m. This suggests a step change in the way that climate change and international development has been prioritised and funded during the period in which the UK made its climate commitments as part of the Paris Agreement.

**Figure 1 – Total commitment of UK ODA and Wellcome climate-development research (initiated between 2015-16 and 2019-20)**

Funder	Number of Projects	Amount Awarded
BEIS	549	£231.6m
AMS	12	£362k
British Academy	18	£2.9m
British Council	313	£13.9m
Royal Society	57	£9.2m
UKRI	140	£154.4m
UK Space Agency	9	£50.8m
DEFRA	≥ 3*	£36.0m
DFID	≥ 96*	£263.8m
DHSC†	3	£3.7m
Wellcome†	44	£29.1m
<b>Total: ODA only</b>	<b>651</b>	<b>£535.1m</b>
<b>Total: ODA and Wellcome</b>	<b>694</b>	<b>£564.2m</b>

Totals may not add up due to rounding

\* Total number of individual research projects could be obtained by neither DEFRA nor DFID

† Total includes one research project jointly funded by DHSC and Wellcome totalling £308k

Impacts seen to arise from UK-funded research include influencing thinking, policy impact, research capacity strengthening and the global standing of UK research. In a survey of 282 members of the climate-development research community, over 80% agreed or strongly agreed that UK-funded research had addressed important knowledge gaps, although many highlighted the challenges of measuring and evaluating impact. UKCDR’s case studies<sup>6</sup> illustrate some of the many ways that research has had impact over the last five years, including tools to inform policy, nationally determined contributions and UK funder decision-making; community engagement through co-design and co-production; and bringing together technologies to improve knowledge of rainfall variability. Funding has also continued to support the UK’s global standing for research excellence, with the UK second only to the USA in authorship for the IPCC 6th Assessment Report. One interviewee said that the UK has a “full pantheon of expertise in climate change across spectrum from modelling, tipping points right the way through to understanding social, cultural and human dynamics.”

***The extent to which the Government’s work to date on climate change and development has taken the UN Sustainable Development Goals and the needs of low-and-middle income countries and vulnerable groups into account***

<sup>6</sup> [Case studies: UK-funded research on climate change and international development | UKCDR](#)

## Sustainable Development Goals

Research is critically important to identify conditions under which both climate goals and the SDGs can be achieved and to design strategies to maximise the synergies and minimise the trade-offs between the two. From all UK ODA and Wellcome-funded climate development research funding committed between 2015-2020, the greatest amount of funding during this period went to climate-development research projects which aligned with SDG 2: Zero hunger (£210.7m), and the greatest number of projects aligned with SDG 7: Affordable and clean energy (at least 300 projects).<sup>7</sup>

To understand how this aligned with demand, UKCDR surveyed 282 members of the climate development research community, of which half were based in LMICs. They were asked to select up to five of the SDGs which they considered to be priority areas for research on climate change and international development. In addition to SDG 1 (No poverty) and SDG 13 (Climate action) other particularly highly rated SDGs include SDG 6 (Clean water and sanitation), SDG 7 (Affordable and clean energy), and SDG 11 (Sustainable cities and communities). These perceptions of priority areas were then compared to the breakdown by SDGs of the climate-development research commitments by UK ODA and Wellcome between 2015-2020. Figure 2 maps the ranking of the survey demand for each of the SDGs (with 1 being the highest and 17 the lowest) against the rankings for how frequently each SDG was listed against climate-development research commitments, by both number of projects and the total value of the projects.

**Figure 2 – SDG rankings for demand survey, number and value of UK ODA and Wellcome-funded climate-development research projects (initiated 2015-16 to 2019-20)**

SDG	Demand ranking (Survey)	Number of projects ranking (Portfolio analysis)	Value of projects ranking (Portfolio analysis)
SDG 1: No poverty	1	N/A	N/A
SDG 2: Zero hunger	6	2	1
SDG 3: Good health and well-being	7	5	3
SDG 4: Quality education	15	12	11
SDG 5: Gender equality	12	11	10
SDG 6: Clean water and sanitation	4	7	5
SDG 7: Affordable and clean energy	3	1	2
SDG 8: Decent work and economic growth	16	9	8
SDG 9: Industry, innovation and infrastructure	11	6	7
SDG 10: Reduced inequalities	9	N/A	N/A
SDG 11: Sustainable cities and communities	5	3	6
SDG 12: Responsible consumption and production	8	8	12
SDG 13: Climate action	2	N/A	N/A
SDG 14: Life below water	14	10	9
SDG 15: Life on land	10	4	4
SDG 16: Peace, justice and strong institutions	17	13	13
SDG 17: Partnerships for the goals	13	N/A	N/A

Note: Of the 17 SDGs, four were not considered for projects to be classified against as their concepts are either deeply embedded within each funders' overall ODA research funding strategy (SDG 1: No poverty, SDG 10: Reduced inequalities and SDG 17: Global Partnership for the Goals) or, as in the case of the SDG on Climate Action (SDG 13), is relevant to all research projects on climate change.

This analysis shows reasonably strong parallels between the perceptions of the SDG priorities and the funding of climate-development research over the last five years. Where discrepancies arise, this could be in part explained by the fact that research projects may be assigned with multiple SDGs,

<sup>7</sup> This ranking excludes SDGs which are relevant to all UK-funded research on climate change and international development, (SDG 1: No poverty, 10: Reduced inequalities, 13: Climate action and 17: Partnerships for the goals) and would therefore be listed in the context of *all* projects.

and certain SDGs are more likely to be coded as relevant to a greater number of projects by research funders (for example, SDG 15: Life on Land). Additionally, the total number of individual research projects could not be obtained by DFID (now FCDO). The figures used for this ranking represent a minimum number of projects, and the actual figures may produce slight changes in the rankings.

### Needs of low- and middle-income countries

UKCDR heard demand for climate-development research on a wide range of topics. Mitigation, adaptation, disaster risk reduction, energy and food systems were the most commonly cited research priorities.<sup>8</sup> The breadth and diversity of research demand illustrate both the cross-cutting nature of climate change and the crucial role of funder collaboration to maximise research impact. Survey respondents from high-income countries were more likely to express demand for research on energy, while those from middle-income countries and low-income countries were more likely to prioritise food systems and adaptation respectively. Other research demand included climate finance and economic mechanisms, natural resource management and nature-based solutions, climate science, water, sustainable development, health, and meeting international commitments such as the SDGs, and Paris Agreement (see Figure 3). COVID-19 was identified as the greatest emerging and future research demand area, in a broader context of increased focus on the many intersections between health, climate and biodiversity.

**Figure 3 – Top 10 most common climate-development research demand topics by survey respondent primary country income group**

Rank	High Income Country (n=133)	Middle Income Country (n=95)	Low Income Country (n=38)
1	Energy (20%)	Food security and food systems, agriculture (21%)	Adaptation (31%)
2	Mitigation (19%)	Mitigation (15%)	= Mitigation (24%)
3	Adaptation (14%)	Adaptation (14%)	= Risk, resilience and DRR (24%)
4	Risk, resilience and DRR (14%)	Sustainable development and SDGs (14%)	= Technology development, innovation (18%)
5	Sustainable development and SDGs (12%)	Risk, resilience and DRR (13%)	= Aligning research, policy and practice (18%)
6	= Aligning research, policy and practice (11%)	= Energy (12%)	Sustainable development and SDGs (16%)
7	= Natural resource management (11%)	= Economy, financial mechanisms, role of private companies (12%)	Energy (16%)
8	= Climate science (11%)	= Natural resource management (11%)	Livelihoods and jobs (11%)
9	= Food security and food systems, agriculture (10%)	= Climate science (11%)	= Health and climate change (8%)
10	= Economy, financial mechanisms, role of private companies (10%)	= Health and climate change (9%)	= Capacity Strengthening (8%)
		= Water (9%)	= Governance and political economy (8%)

Note: Survey participant categories representing less than 10% of overall responses were not included in these rankings (15 responses where no clear income category was provided).

Demand categories which were raised as priorities by the same number of survey respondents are ranked together.

Stakeholders also raised demand for specific ways of conducting research, or “research mechanisms”, particularly aligning research, policy and practice and producing context-specific research to maximise impact and ensure that research is being conducted where it is needed most. Others emphasised the importance of research including technology development and innovation; capacity strengthening; responding to demand for data and knowledge gaps; and enabling knowledge exchange.

<sup>8</sup> For this analysis, respondents were not limited to the SDGs, but could raise any demand areas they wished, which were then coded and analysed by UKCDR.

***The potential of COP26 to address these remaining challenges effectively and the steps the Government needs to take if COP26 is to succeed in tackling them***

UKCDR makes the following recommendations to funders of climate-development research:

- **Work with partners to increase the proportion of funding going to the least developed and low-income countries** which are most vulnerable to the impacts of climate change, and to applied and systems-based research.
- **Further prioritise alignment and collaboration in their strategies** to support climate and sustainable development goals in the context of budget constraints and in the longer timelines required to achieve some climate impacts.
- **Consider more flexible approaches to facilitate and incentivise partnerships** to ensure that climate-development research is demand-driven, increasingly solutions-orientated and aligned with local priorities.
- **Continue to promote principles and practices of equity** when building partnerships on a scale and in locations not previously achieved to meet climate-development goals.
- **Draw on lessons learned from COVID-19**, seek further ministerial commitments on “greening” the recovery from COVID-19.

COP26 offers significant opportunities to pursue these objectives. Countries around the world will be called on to make bolder science-based commitments to address climate change, and the conference provides a focal point for discussion and action on climate change by a wide range of stakeholder groups. Moreover, the UK’s reputation for thought leadership on climate-development research and its position as host of COP26 draws additional attention to UK actions, and provides the opportunity for the UK to set the tone for the conference more broadly. One interviewee, a climate-development research specialist from a UK university, told UKCDR “UK science is hugely influential globally and in specific country settings because that is paving the way for the policies and the diplomatic efforts we see through things like COP26.”

This engagement at COP26 is particularly important in the context of the COVID-19 pandemic. COP26 offers opportunities for co-production between policymakers and other stakeholders, helping to understand the needs of communities (as the pandemic has disrupted communications with communities to understand their needs and perspectives on topics such as climate change) and to promote the political buy-in in a context of increased budgetary pressures. Getting firm commitments at a ministerial level can help push funding and operations forward. It is important that COP26 is leveraged to draw lessons from COVID-19 on how countries have approached the use of science in policy, with potential insights on behaviour, decision-making, and issues around cascading impacts and compound risk – all of which are also relevant to climate change. In addition, it is important to ensure that commitments to “build back better” from COVID-19 benefit some of the most vulnerable communities which are often most adversely affected by both COVID-19 and climate change.

Finally, UK-funded research on climate change and international development has an important role to play in understanding the opportunities, challenges and trade-offs associated with the COP26 priorities. The COP26 priorities (Adaptation & Resilience, Nature, Energy Transition, Transport and Finance) have both unique challenges and opportunities in the context of LMICs. Research on climate change and international development is already doing much to achieve real-world impacts in the context of these priorities, ranging from shaping policy and practice and building knowledge to

generating new engagement, relationships and capacity strengthening. In November 2020, UKCDR hosted a webinar to showcase impacts resulting from UK-funded research, and to provide learning around research to achieve the COP26 priorities. The event recording and accompanying booklet can be found on the UKCDR website.<sup>9</sup>

### **Conclusion**

- Research is critically important to identify conditions under which both climate and development goals can be achieved and to design strategies to maximise the synergies and minimise the trade-offs between the two.
- Between 2015-2020, the UK committed £535.1m in over 650 ODA-funded climate-development research projects - suggesting a step change increase in funding since the late 2000s (prior to any budget cuts).
- Analysis of funding commitments and research demand mapped against the SDGs shows reasonably strong parallels between perceptions of SDG priorities and the funding of climate-development research over the last five years.
- It is important to leverage COP26 to draw lessons from COVID-19 on the use of science in policy, and to ensure that commitments to "build back better" benefit some of the most vulnerable communities which are often most adversely affected by both COVID-19 and climate change.

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<sup>9</sup> [Supporting the COP26 priorities through research on international development and climate change | UKCDR](#)

## Annex 1: Key findings from UKCDR's report, *UK ODA and Wellcome-funded research on climate change international development 2015-2020*

