

Global Challenges Research Fund

A rapid review

September 2017

The Independent Commission for Aid Impact works to improve the quality of UK development assistance through robust, independent scrutiny. We provide assurance to the UK taxpayer by conducting independent reviews of the effectiveness and value for money of UK aid.

We operate independently of government, reporting to Parliament, and our mandate covers all UK official development assistance.



© Crown copyright 2017

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit www.nationalarchives.gov.uk/doc/open-government-licence/version/3 or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: psi@nationalarchives.gsi.gov.uk.

Where we have identified any third party copyright you will need to obtain permission from the copyright holders concerned.

Readers are encouraged to reproduce material from ICAI reports, as long as they are not being sold commercially, under the terms of the Open Government Licence. ICAI requests due acknowledgement and a copy of the publication. For online use, we ask readers to link to the original resource on the ICAI website.

Any enquiries regarding this publication should be sent to us at enquiries@icai.independent.gov.uk.

Contents

Executive Summary	i
1. Introduction	4
2. Overview of the GCRF	6
3. Findings	17
4. Conclusions & recommendations	32
Annex 1 Summary of findings by review questions	34
Annex 2 Geographical overview of Research Councils' GCRF portfolio	35
Annex 3 Feedback of stakeholder consultations	36

Executive Summary

In November 2015, the government announced a new funding mechanism for research on international development, the Global Challenges Research Fund (GCRF). It aims to ensure that “UK research takes a leading role in addressing the problems faced by developing countries” and to “harness the expertise of the UK’s world-leading research base to strengthen resilience and response to crisis” in developing countries.¹ With a budget of £1.5 billion from 2016 to 2021, it marks a significant increase in UK government funding for development research.

The GCRF has been established rapidly over the past 15 months and continues to evolve. We have conducted a rapid review of its emerging structures and processes, to assess whether they are strong enough to ensure a relevant and effective development research portfolio that provides value for money.

An ICAI rapid review is a short, real-time review of an emerging issue or area of UK aid spending that is of particular interest to the UK parliament and public. We examine the evidence to date and comment on issues of concern, but do not draw final conclusions on performance or impact. Rapid reviews are therefore not scored.

Overview of the Global Challenges Research Fund

As an aid-funded instrument, the GCRF must have as its primary objective the promotion of the development and welfare of developing countries. Within this remit, the Fund has two ambitions: 1) to promote UK research excellence, ensuring that “UK science takes the lead in addressing the problems faced by developing countries”; and 2) to address global development challenges by generating “innovative solutions to intractable development issues”.² Its approach to global challenges is described as “solutions-focused” and “challenge-led”. The Fund also aims to strengthen research capacity in developing countries through research partnerships with UK institutions.

The GCRF falls under the authority of the Department for Business, Energy and Industrial Strategy (BEIS) and works primarily through the UK’s Research Councils, National Academies and the UK Space Agency.³ These delivery partners receive funding from the GCRF in two ways. The largest share of the funding is given to them individually as annual allocations, from which they award grants onwards to research institutions, industry or non-profit organisations (individually or in consortia) through a competitive process. Most of the remaining ‘unallocated pot’ of £691 million is placed in two ‘Collective Funds’ – one for the Research Councils and one for the Academies. The Collective Funds accept joint bids from all the Research Councils or all the Academies, thus bringing together different academic disciplines to tackle particular development challenges. So far a total of £476 million has been allocated towards these two Collective Funds. The four UK Higher Education Funding Councils for England, Scotland, Wales and Northern Ireland also receive GCRF funding, which they allocate to research institutions based on the overall quality of their research.

Rapid progress, but challenges remain

A potentially important contribution to global development challenges: There are many pressing global development challenges that are under-researched and poorly evidenced. The GCRF is a welcome increase in the UK’s ambition in development-oriented research. It has drawn on well-established mechanisms for identifying research excellence and adapted them to the requirements of Official Development Assistance (ODA). In the short period that it has been operative, it has also begun to innovate in useful ways on traditional models of public research funding – particularly through the promotion of interdisciplinary work on complex development challenges, such as non-communicable diseases and forced displacement.

While we recognise the progress that has been made, the rapid development of the GCRF has meant that some aspects of its strategy, governance arrangements and procedures are not yet clear or strong enough. We suggest a number of areas where it can strengthen its systems in order to deliver its objectives more effectively and achieve value for money. A summary of our findings by review question can be found in Annex 1.

1. *The Allocation of Science and Research Funding 2016/17 to 2019/20*, March 2016, p. 3 and p. 18, [link](#).

2. *UK Strategy for the Global Challenges Research Fund (GCRF)*, Research Councils, Academies and UK Space Agency, June 2017, p. 2, [link](#).

3. The UK Space Agency uses GCRF funding to partner with governments and organisations in developing countries in areas such as earth observation technologies for ecosystem monitoring and preparedness for natural disasters.

Insufficient strategic direction: The stated aim of the GCRF is to facilitate “a positive transformational impact on development research and on sustainable global development”.⁴ In its strategy documents, it equates global development challenges to the Sustainable Development Goals (SDGs). Its funding criteria focus primarily on meeting the ODA definition and on ensuring academic excellence through a competitive application process. The assessment processes against both criteria function well. However, given the breadth of the SDGs agenda, the result is a scattered portfolio of research projects, rather than a concentration of effort on pressing global development challenges. In our view, a transformative research agenda would call for more focused objectives in high-priority and high-impact areas and a more deliberate targeting of resources towards achieving them.

An overly decentralised structure: The GCRF’s weaknesses in strategic direction are linked to its highly decentralised structure. While final decisions on the GCRF’s strategy, design and operating principles rest with the science minister, BEIS has opted to leave most policy development on these issues to the Research Councils and Academies. Its rationale for doing so is the Haldane Principle – a long-established rule of UK government research funding (now written into legislation) that scientists should decide on the merits of research proposals through peer review. It was entirely appropriate for BEIS to delegate decision making on individual research proposals to its delivery partners, who have well-established procedures for assessing academic and scientific merit. However, in our view, BEIS should exercise stronger leadership over the strategic direction of the Fund – including determining in consultation with other stakeholders which global challenges to prioritise – and should manage the overall portfolio in such a way as to maximise impact and value for money.

A mixed picture on pathways to impact: Applicants for GCRF funds are asked to specify how their research proposal will translate into development impact. While most delivery partners have established processes for assessing potential impact, this is a difficult assessment for delivery partners and research institutions that are new to the development field. It is also left up to individual research institutions to disseminate their research findings to potential users. While we accept that, for some research, the practical applications may take time to emerge, the GCRF could do more to encourage delivery partners to create links between researchers and those who will eventually make use of or benefit from the research.

Promoting interdisciplinary work: The £476 million allocated so far to the GCRF’s two Collective Funds has the potential to achieve a sharper focus on development results. They promote joint work across the Research Councils and the Academies, in support of complex development challenges that need interdisciplinary effort. As research funding is traditionally organised by discipline, this is the most innovative element of the GCRF. There are plans to develop a number of thematic Research Hubs and ‘strategic portfolios’ to address particular development challenges. We welcome these initiatives and note that there is scope to develop them further – for example, by involving specialists in fund management, monitoring and evaluation, and by building networks to promote research uptake.

Partnering with the global South: The GCRF is seeking to build research capacity in developing countries by encouraging UK universities to include southern institutions in their applications. However, capacity building has not been approached in a structured way. There has been no analysis of existing capacities or identification of geographical or thematic priorities. The early rounds of GCRF funding were done in haste, encouraging UK research institutions to rely on existing research partnerships, which were mainly in middle-income countries. The GCRF’s focus on research excellence may continue to advantage developing countries that already have credible research institutions, rather than directing investment towards poorer countries where capacity building may be most needed. The GCRF should clarify the level of priority it gives to building southern capacity and consider developing a more targeted approach.

4. See footnote 2.

Tied aid and ODA eligibility: Most of the Research Councils require a UK research institution to be the primary applicant for funds, even though partnerships with southern institutions are encouraged. We have requested the government to look into whether the funding conditions of the GCRF are consistent with the government's commitment not to tie UK aid. We found that the Research Councils, the Academies and the UK Space Agency had developed robust procedures for ensuring ODA eligibility. However, we have concerns in respect of GCRF funding spent through the four regional Funding Councils as grants to higher education institutions, which we have brought to the attention of the government.

Risks at the end of the GCRF: The GCRF provides a substantial increase in funding for the Research Councils, the Academies and the UK Space Agency over a five-year period, encouraging them to invest in longer-term projects such as Research Hubs and international partnerships. Delivery partners are concerned that the sustainability of these initiatives and the impact of long-term research investments may be at risk if there is a cliff edge drop in funding at the end of the GCRF funding cycle in 2021. We would suggest that the government and delivery partners give early consideration to the question of how to ensure that its investments will deliver sustainable impact, so that the full value of the investment can be realised.

Learning is informal, rather than structured: Fifteen months into its five-year award cycle, the GCRF is yet to develop a theory of change or criteria for assessing its own overall performance and value for money. This hampers its ability to monitor results at the portfolio level and adjust accordingly. However, while formal learning processes at Fund level are yet to emerge, we noted good communication between delivery partners and a willingness to share lessons and learn from each other.

Cross-Whitehall coordination of research is limited: We noted good levels of communication between the GCRF and other UK development research initiatives, such as DFID's research portfolio and the Ross Fund, which is led by the Department of Health. However, there is as yet no formal coordination structure across these initiatives that would clarify their respective roles and promote coordination, although we are informed by BEIS that there are plans to create one. Given the substantial increase in UK investment in development research in recent years, a more formal coordination process is urgently needed. We found little sign that the design of the GCRF was informed by experience from other cross-government aid funds. There has also been little structured learning from large development research funds in other countries, such as the Swiss Programme for Research on Global Issues for Development ('r4d') programme.

Recommendations

Recommendation 1

To increase its prospects of achieving transformative research impact, the GCRF should develop a more deliberate strategy that encourages a concentration of research portfolios around high-priority global development challenges, with a stronger orientation towards development impact.

Recommendation 2

The GCRF should develop clearer priorities and approaches to partnering with research institutions in the global South.

Recommendation 3

BEIS should develop a results framework for assessing the overall performance, impact and value for money of the GCRF portfolio, drawing on DFID's guidelines on value for money in research and evidence programming.

Recommendation 4

With the increase in investment in development research across the UK government, the responsible departments should put in place a standing coordination body to clarify roles and responsibilities, avoid duplication and overlap, and facilitate exchange of learning.

1 Introduction

- 1.1 In November 2015, the UK government introduced a new research funding mechanism, the Global Challenges Research Fund (GCRF). The Fund is part of the UK's aid spending, or Official Development Assistance (ODA). Its stated aims are to ensure that "UK research takes a leading role in addressing the problems faced by developing countries" and to "harness the expertise of the UK's world-leading research base to strengthen resilience and response to crisis" in the developing world.⁵
- 1.2 The GCRF is one of several cross-government funds created in recent years to target complex and fast-changing development challenges and intended to draw on the skills and expertise available across the UK government. Other cross-government funds include the Prosperity Fund, which promotes reforms and investments needed for economic growth in developing countries, and the Conflict, Stability and Security Fund (CSSF), focused on crisis response and stabilising fragile and conflict-affected states.
- 1.3 While research is a long-standing aspect of UK development assistance, the establishment of the GCRF marks a significant expansion of UK research on global development challenges. With a budget of £1.5 billion over five years from 2016 to 2021, it also marks a change in the overall pattern of UK government funding for science and research, making a notable part of this funding contingent on whether or not the research themes fall within the international ODA definition.
- 1.4 The Fund falls under the responsibility of the Department for Business, Energy and Industrial Strategy (BEIS), but decisions on what research to fund have been devolved to a number of delivery partners: the UK's Research Councils, National Academies, the UK Space Agency and the Higher Education Funding Councils. The delivery partners have moved quickly to establish their processes for allocating the funds. By July 2017, nearly £1.3 billion of the £1.5 billion total had been approved to delivery partners, though not necessarily granted to individual research institutions.
- 1.5 In view of the scale of the funding and the challenges of designing and implementing a complex instrument in such a short time period, we decided to conduct a rapid review of the design and operation of the GCRF. We ask how well, working alongside other aid-funded research, it ensures that its portfolio is relevant to UK government development priorities and the needs of developing countries. We look at whether it has the governance arrangements, systems and procedures required to allocate its funds effectively in support of its vision and objectives. We assess how the overall strategy and research priorities for the GCRF were determined, how well the Fund is coordinated and managed, whether it has suitable criteria for allocating funding, and whether it is equipped to assess its results.
- 1.6 Our review questions are set out in Table 1. We have not attempted at this early stage to make judgments on the effectiveness of the GCRF. However, as the Fund has already approved or allocated over 85% of its £1.5 billion budget, this is an appropriate moment to review its design and its work to date and to make suggestions for its continuing development. As with other ICAI rapid reviews, we do not offer a performance rating. Instead we offer a series of recommendations to assist in the continuing improvement of the GCRF's governance structures and funding strategies.

Box 1: What is an ICAI rapid review?

ICAI rapid reviews are short reviews carried out in real time to examine an emerging issue or area of UK aid spending. Rapid reviews address areas of interest for the UK parliament or public, using a flexible methodology. They provide an initial analysis with the aim of influencing programming at an early stage. Rapid reviews comment on early performance and may raise issues or concerns. They are not designed to reach final conclusions on effectiveness or impact, and therefore are not scored.

Other types of ICAI reviews include **impact reviews**, which examine results claims made for UK aid to assess their credibility and their significance for the intended beneficiaries, **performance reviews**, which assess the quality of delivery of UK aid, and **learning reviews**, which explore how knowledge is generated in novel areas and translated into credible programming.

5. See footnote 1.

- 1.7 This report is structured as follows. After this introduction the second chapter describes the design and workings of the GCRF. The third section sets out our findings, highlighting the Fund's strengths and weaknesses. The final section presents our conclusions and recommendations. The answers to our review questions are summarised in Annex 1.

Table 1: Our review questions

Review questions	
1.	Relevance: Working alongside other aid-funded research, how well does the GCRF ensure that its portfolio is relevant to UK government development priorities and the needs of southern stakeholders?
2.	Effectiveness: To what extent do the systems and procedures of the GCRF have the potential to ensure both impactful research and value for money?
3.	Learning: Has the design of the GCRF been informed by learning from other similar funds and instruments and any broader lessons from research funding?

Methodology

- 1.8 Figure 1 provides an overview of our methodology. We explored how GCRF funding calls for research proposals were developed and assessed, and reviewed the bids made into and allocations made out of the Fund to date. We conducted key informant interviews to explore strategy and governance arrangements, and a more detailed review of a small sample of GCRF activities. We undertook three surveys. We surveyed the primary delivery partners (the Research Councils, the Academies and the UK Space Agency), in addition to conducting interviews with most of them using the questions in our Approach Paper. We also undertook two online surveys, one with the lead applicants for GCRF-funded grants and another with their consortium members, to get their feedback on the strengths and weaknesses of the GCRF. The latter survey included significant representation from research partners in developing countries (see Box 9).



Figure 1: Methodology

- 1.9 Regarding the scope and limits of this review, the GCRF is still developing. Its overall strategy was only published in June 2017 and some of its core systems and processes are still under design.⁶ This means that our findings will be of a preliminary nature, focused on whether the GCRF's systems and processes are suitable for developing a potentially impactful research portfolio.

⁶ UK Strategy for the Global Challenges Research Fund (GCRF), Research Councils, Academies and UK Space Agency, June 2017, [link](#).

2 Overview of the GCRF

Purpose and function

- 2.1 The November 2015 Aid Strategy set out the government's dual ambition for the UK aid programme to meet the UK's moral obligation to the world's poorest while at the same time supporting UK national interests. The GCRF reflects these dual goals. It marks a substantial increase in the UK's investment in research to address the needs of the developing world. At the same time, it promotes a world-leading role in this area for UK research institutions, with the secondary aim of promoting research capacity in developing countries.
- 2.2 In the 15 months after its launch the GCRF's overall strategy was under development and its objectives were formulated and interpreted somewhat differently across its documents. This changed on 30 June 2017 with the publication of the GCRF Strategy,⁷ which articulates the following broad ambitions:
- **Promoting UK research excellence:** "to ensure UK science takes the lead in addressing the problems faced by developing countries, whilst developing our ability to deliver cutting-edge research".
 - **Resolving global development challenges:** "to generate innovative solutions to intractable development issues and to identify practicable pathways to healthier and safer lives, sustainable development and prosperity for all, equal and effective education, social justice and human rights, and stable institutions".
- 2.3 The strategy specifies that the GCRF should be "solutions-focused" and "challenge-led", promote "disciplinary and interdisciplinary research" and "strengthen capacity for research, innovation and knowledge exchange in the UK and developing countries through partnerships". It also sets out the objective that the GCRF will "provide an agile response to emergencies where there is an urgent research need", although emergency response has not yet been a strong focus of its work.
- 2.4 As an ODA-funded instrument, all GCRF funding must have as its primary objective the promotion of the development and welfare of developing countries. Beyond requiring compliance with the international ODA definition, the GCRF has taken a broad interpretation of 'global challenges'. The strategy defines global development challenges by references to the 17 United Nations Sustainable Development Goals and their 169 targets, leaving the GCRF a wide remit.

Box 2: The GCRF and the definition of international aid

The international ODA definition is agreed at the Development Assistance Committee of the Organisation for Economic Cooperation and Development (OECD DAC). It states that official aid spending must have as its primary objective "the promotion of the economic development and welfare of developing countries". There is an agreed list of ODA-eligible countries and multilateral institutions. Research on development issues is a legitimate use of ODA, provided that it is "directly and primarily relevant to the problems of developing countries".⁸ GCRF delivery partners have produced guidance on ODA compliance for grant applicants, which has been approved by BEIS and DFID.⁹

Most UK aid is also governed by the International Development Act of 2002, which requires that aid must be "likely to contribute to a reduction in poverty" and that the spending body must give due consideration to reducing gender inequality. The International Development Act may also prohibit tied aid, although this is untested (see the discussion in paragraph 3.36).¹⁰ However, in the case of the GCRF, BEIS opted not to use the International Development Act as its spending power. Instead, the Science and Technology Act and Higher Education Act form the legal bases for GCRF expenditure. BEIS nonetheless stresses that the objective of the GCRF is to maximise development impact for poor people.

7. See footnote 2.

8. *Is it ODA?*, OECD, 2008, [link](#).

9. *Official Development Assistance: Global Challenges Research Fund Guidance*, RCUK and Academies, 2016, p. 4, [link](#). The UK Space Agency has developed its own guidance, specific to an innovation programme, using a procurement-type model to award grants. Grantees and consortia members are also expected to provide match funding to the project. *International Partnership Programme (IPP) Strategy*, April 2017, UK Space Agency, p. 2, unpublished.

10. *DFID Smart Rules: Better Programme Delivery*, DFID, April 2017, p. 45, [link](#).

2.5 Beyond the ODA definition, research funding criteria are developed by the GCRF's main delivery partners, the UK's Research Councils and National Academies. Research Councils UK (the umbrella body for all the Research Councils) identifies 12 challenge areas, organised under three themes, in accordance with the GCRF Strategy (Table 2). These echo, but are different from, the four objectives in the UK Aid Strategy.

Table 2: GCRF themes and challenge areas

Themes	Challenge areas
Equitable access to sustainable development	<ol style="list-style-type: none"> 1. secure and resilient food systems supported by sustainable marine resources and agriculture 2. sustainable health and wellbeing 3. inclusive and equitable quality education 4. clean air, water and sanitation 5. affordable, reliable, sustainable energy.
Sustainable economies and societies	<ol style="list-style-type: none"> 6. sustainable livelihoods supported by strong foundations for inclusive economic growth and innovation 7. resilience and action on short-term environmental shocks and long-term environmental change 8. sustainable cities and communities 9. sustainable production and consumption of materials and other resources.
Human rights, good governance and social justice	<ol style="list-style-type: none"> 10. understand and respond effectively to forced displacement and multiple refugee crises 11. reduce conflict and promote peace, justice and humanitarian action 12. reduce poverty and inequality, including gender inequalities.

2.6 There is no list of priority countries. All countries on the OECD's list of ODA-eligible countries, whether low- or middle-income, can be a partner in or a subject of GCRF-funded research.

“Because similar challenges can affect multiple countries, the GCRF does not have an explicit priority list of developing countries, instead GCRF funding supports universities, industry and research organisations to do disciplinary and interdisciplinary challenge-led research and quick responses to emergencies where urgent research is needed.”

BEIS Research and Innovation ODA Statement of Intent, May 2017, p. 4

2.7 UK aid has traditionally included a sizeable allocation for research, managed by the Department for International Development (DFID). DFID has a research budget of a similar size to the GCRF's (£390 million per annum over the next four years). Its portfolio includes research designed to contribute directly to DFID's own programming and wider research that contributes to global goods and a global understanding of development issues. Another significant BEIS-managed ODA-funded research instrument is the Newton Fund, established in 2014 to use science and innovation to promote economic development and social welfare in partner countries. It matches spending by partner countries in the developing world with UK ODA funds, with a UK investment of £735 million to 2021.¹¹

¹¹. The Newton Fund website, [link](#). The Fund was launched in 2014 and originally consisted of £75 million each year for five years. In the 2015 UK Spending Review it was agreed to extend the Fund from 2019 to 2021 and expand it by doubling the £75 million investment to £150 million by 2021, leading to a £735 million UK investment to 2021, with partner countries providing matched resources within the Fund. For a summary of all the cross-Whitehall funds in receipt of ODA, including the Ross Fund, please refer to *The 2015 ODA allocation process: an information note for the IDC, ICAI, 2015*, p. 66, [link](#).

In addition to BEIS-managed instruments, DFID and the Department of Health implement the £1 billion Ross Fund to “develop, test and deliver a range of new products (including vaccines, drugs and diagnostics) to help combat the world’s most serious diseases in developing countries.”¹²

2.8 Because of its size, the GCRF represents a shift in the overall profile of UK government spending on research, directing a higher proportion towards research priorities in the developing world. Before the GCRF, UK government funding to the Research Councils had been frozen since 2010, which meant that it declined in real terms. Compared to a 2015 combined budget for the Research Councils of £3.4 billion,¹³ the injection of an additional £1.5 billion over five years has put government research funding back on a moderately upwards trajectory. It has also given the UK’s public research funding bodies a more prominent role in the UK aid programme.

Table 3: GCRF original annual allocation across delivery partners by percentage of the total £1.5 billion¹⁴

Programme	2016-17	2017-18	2018-19	2019-20	2020-21	Totals*
Research Councils	3.2%	6.6%	6.6%	6.6%	6.6%	29.6%
Academies	0.7%	0.7%	0.7%	0.7%	0.7%	3.5%
UK Space Agency	2.1%	2%	2%	2%	2%	10.1%
UK Funding Councils	1.3%	2.4%	2.4%	2.4%	2.4%	10.9%
Unallocated	-	2.5%	8.1%	14.2%	20.8%	45.6%
Total funding (£ million)	£112	£215	£299	£393	£492	£1,511

*Total percentages have been rounded to one decimal place, which explains why totals do not add up to 100%.

Box 3: GCRF delivery partners: Distributing ODA funding through UK research funding bodies

The GCRF is counted both as ODA and in the government’s budget for funding UK research and innovation. The delivery partners, responsible for spending the GCRF’s money, are the UK’s main public bodies for the distribution of government research funds.

1. The Research Councils and Academies:

The UK’s seven Research Councils and four National Academies are the guardians of public funds to support research institutions and scientists in the UK. They award research grants to UK research institutions and scientists through competitive funding calls for research proposals. The Research Councils and Academies are public bodies, established by Royal Charter. They receive most of their funding from the Department for Business, Energy and Industrial Strategy (BEIS). They are independent from the UK government, but manage public research funds broadly in line with general priorities set out by the government. (On the principles guiding the relationship between BEIS and the Research Councils, see Box 10.)

There are seven Research Councils and their overarching body, the Research Councils UK (RCUK):

1. Arts and Humanities Research Council (AHRC)
2. Biotechnology and Biological Sciences Research Council (BBSRC)
3. Economic and Social Research Council (ESRC)
4. Engineering and Physical Sciences Research Council (EPSRC)
5. Medical Research Council (MRC)
6. Natural Environment Research Council (NERC)
7. Science and Technology Facilities Council (STFC)

12. *The Ross Fund Summary*, January 2016, p. 3, [link](#).

13. *UK government expenditure on science, engineering and technology: 2015*, Office for National Statistics, June 2017, [link](#).

14. Source: Budget provided by BEIS on the original GCRF allocations determined as part of the 2015 Spending Review.

There are four Academies:

1. Academy of Medical Sciences
2. British Academy
3. Royal Academy of Engineering
4. Royal Society

2. The Funding Councils:

There are four regional Councils:

1. Higher Education Funding Council for England (HEFCE)
2. Scottish Funding Council (SFC)
3. Higher Education Funding Council for Wales (HEFCW)
4. Department for the Economy, Northern Ireland (DfE)

After an initial allocation in 2015, all four Funding Councils have been allocated additional GCRF funding bringing the total distributed by the Funding Councils to some £288 million. The bulk of this has gone to HEFCE.

HEFCE and SFC have distributed their annual GCRF allocations to higher education institutions as Quality Related research funding according to a formula that takes into consideration their performance in the 2014 Research Excellence Framework exercise, their research volume, the relative cost of research in different subject areas and London weighting where appropriate. HEFCW and DfE have distributed their GCRF allocation on the basis of individual Research Council income for each university. Recipients of GCRF Quality Related funding can spend it according to their own priorities, as long as they adhere to official ODA guidelines and stay within the remit of the GCRF Strategy and the BEIS ODA Statement of Intent. HEFCE has distributed its GCRF allocation as part of its usual Quality Related funding. The other three Funding Councils created separate funding streams for their GCRF allocations.

3. The UK Space Agency:

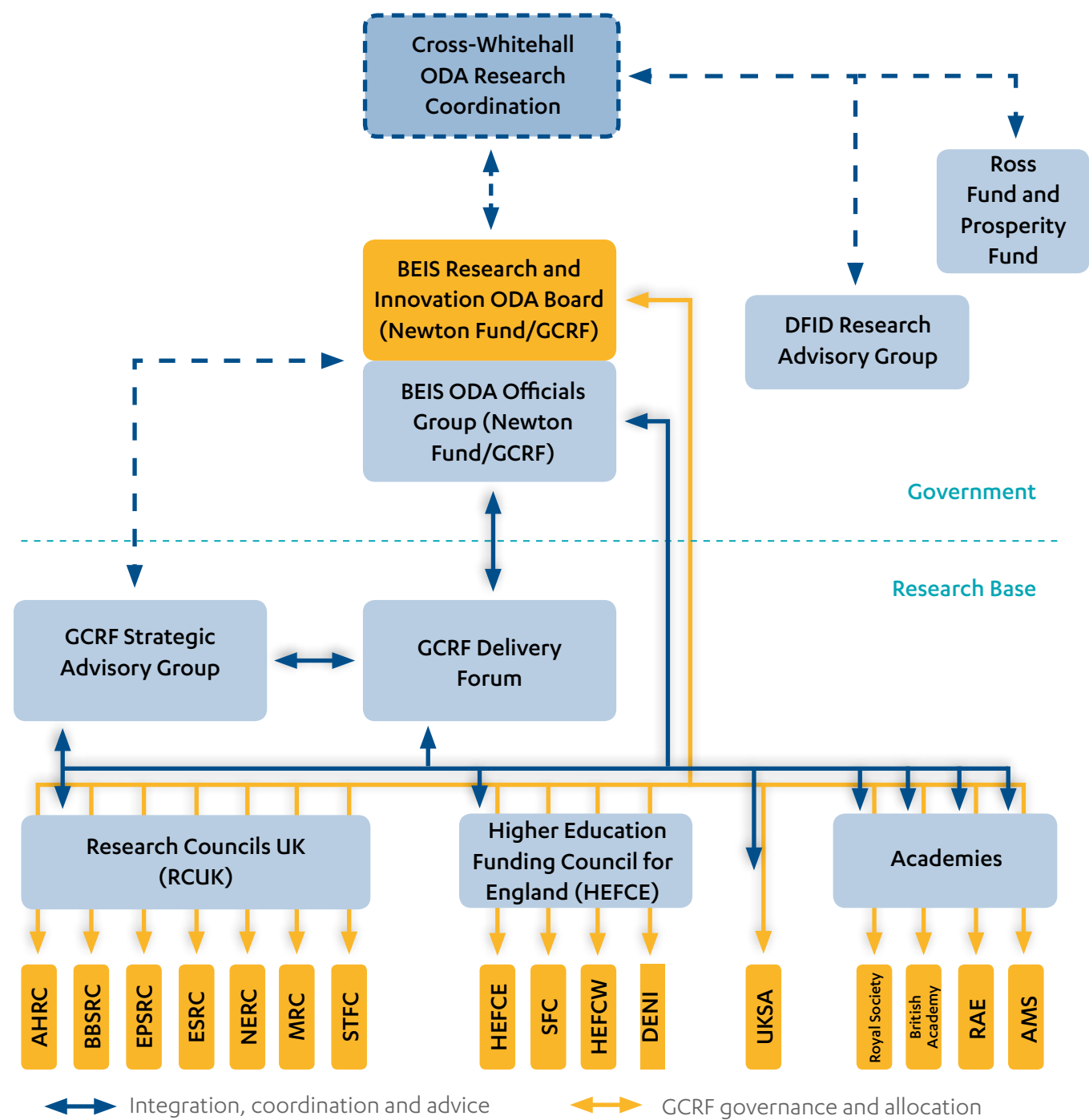
The UK Space Agency is a newcomer to ODA-funded projects. It has used its GCRF allocations to develop an International Partnership Programme focused on improving telecommunications and connectivity in developing countries, including in remote, isolated regions, and using earth observation techniques to provide a rapid response to disasters such as earthquakes or typhoons and to monitor and protect the environment, resources and infrastructure.

Governance and institutional structure

2.9 A diagram of the GCRF's institutional design and governance structure can be found in Figure 2. It is a highly devolved structure, with considerable responsibility lying with the delivery partners. The GCRF Strategy was developed collectively by delivery partners and presented to BEIS by the representatives of the Research Councils and Academies.

2.10 The BEIS Research and Innovation ODA Board plays an oversight role, supported by a number of advisory, coordination and compliance groups, particularly the Strategic Advisory Group. Table 4 below lists the actors involved in the governance of the GCRF and their responsibilities.

Figure 2: The governance of the GCRF



Abbreviations

AHRC	Arts and Humanities Research Council
BBSRC	Biotechnology and Biological Sciences Research Council
EPSRC	Engineering and Physical Sciences Research Council
ESRC	Economic and Social Research Council
NERC	Natural Environment Research Council
MRC	Medical Research Council
STFC	Science and Technology Facilities Council

SFC	Scottish Funding Council
HEFCW	Higher Education Funding Council for Wales
DENI	Department for the Economy, Northern Ireland
UKSA	UK Space Agency
RAE	Royal Academy of Engineering
AMS	Academy of Medical Sciences

Table 4: Roles and responsibilities in the GCRF

Institutions	Function
Department for Business, Energy and Industrial Strategy	<p>The GCRF falls under the remit of BEIS, with its Research and Innovation ODA Board as the Fund's highest authority. The Board is chaired at ministerial level and is also in charge of another major ODA-funded research initiative, the Newton Fund. The Board is not accountable for value for money, ODA compliance or financial management, which are delegated to the BEIS Research and Innovation ODA Officials Group (which has met six times between July 2016 and July 2017) and the delivery partners.</p> <p>BEIS also chairs the Unallocated Fund's Assessment Panel, comprised largely of BEIS officials, with representation from DFID and the chair of the Strategic Advisory Group. This Panel decides on allocations to the delivery partners from the GCRF's unallocated pot of £691 million. So far the Panel has allocated £476 million from the unallocated pot to two Collective Funds, one for the Research Councils and one for the Academies, a decision signed off by the science minister.</p>
Department for International Development	<p>DFID's formal role in the GCRF includes a seat on the BEIS Research and Innovation ODA Board and a seat on the Unallocated Fund's Assessment Panel. The DFID chief scientific advisor gives informal advice to the GCRF's Strategic Advisory Group (see below), and DFID has often provided ad hoc and informal support to the GCRF.</p>
Strategic Advisory Group	<p>The GCRF's Strategic Advisory Group is largely composed of senior academics with development expertise, who provide advice on a voluntary basis (only the chair receives an honorarium). The group's primary role is to advise on strategy development and delivery. It has formulated the Fund's strategic research agenda and funding criteria and oversees the coherence of the GCRF research portfolio across delivery partners.</p>
Delivery partners	<p>The Research Councils, Academies, UK Space Agency and Funding Councils (see Box 3) receive individual allocations under the GCRF. The first two can, in addition, bid into the Collective Funds for collaborative endeavours. While they are designated as delivery partners to BEIS, this understates their role in the design and delivery of the Fund. The Research Councils, through their umbrella organisation Research Councils UK, have taken the lead in developing the Fund's strategic vision and setting up award mechanisms for distributing GCRF funds to UK research institutions. In April 2018, the seven Research Councils will come under the remit of UK Research and Innovation (UKRI).¹⁵ This will be a centralised funding body and will take over the role of Research Councils UK. It is unclear how this will affect other GCRF delivery partners.</p>

2.11 The devolved structure of the GCRF was designed to ensure a level of independence for the UK research community, in accordance with the established principles that govern UK public funding for research (see Box 10). The BEIS ODA Statement of Intent says that the "GCRF works at the research base level and decisions on research priorities are made independently from BEIS."¹⁶ Having divided the annual GCRF allocations between the delivery partners, BEIS leaves it to them to determine their procedures and criteria for allocating the funding, subject to review and approval by the BEIS ODA Board.

“The UK has a robust system for supporting excellent research in open competition through peer review. The GCRF will build on those strengths, boosting research excellence, international partnerships (especially with developing countries) and research with impact, supported by transparent and rigorous decision-making processes for funding and spending.”

GCRF Strategy, BEIS, June 2017

15. Details on UKRI: see website, [link](#). For Chief Executive Designate Sir Mark Walport's vision for UKRI, [link](#).

16. *Research and Innovation: Official Development Assistance (ODA) Statement of Intent*, BEIS, June 2017, p. 4, [link](#).

Relationship with research institutions in developing countries

- 2.12 The GCRF Strategy includes a commitment to strengthening the capacity of southern research institutions through partnerships with UK institutions.¹⁷ This aim is also captured in the BEIS ODA Statement of Intent, which expects “substantial progress” by 2021 in “increasing the science and innovation capability of partner countries.”¹⁸
- 2.13 In contrast to the Newton Fund, there is no set list of partner countries for the GCRF beyond the OECD DAC country list of over 150 least-developed, low-income and middle-income countries.¹⁹ The rationale is that decisions on research partners in the global South should be “challenge-led”: UK research institutions should select partners based on where, and with whom, research collaboration makes most sense, adds most value or has the most impact.²⁰
- 2.14 When choosing southern partner institutions, the GCRF Strategy suggests that the GCRF should distinguish itself from, and complement, the Newton Fund, whose partners are mainly from middle-income countries.²¹ So far, however, the GCRF’s southern partners come from much the same group of countries – particularly larger middle-income countries such as China, India, Kenya and South Africa. Bangladesh is the leading low-income country recipient. The lack of diversity may reflect the fact that these middle-income countries already have a history of research partnerships with UK research institutions that can be built on and expanded. The speed at which the GCRF was rolled out is likely to have exacerbated the tendency to return to tried and tested partners.

Box 4: What is the 'global South'?

The 'global South' is a way of referring to less developed, lower- and middle-income countries, whether or not located in the southern hemisphere. We have used this terminology in this review because it is the language referred to by BEIS and its partners in GCRF documentation. The term 'southern partners' refers to research partners from research institutions, industry or non-profit organisations from the global South involved in GCRF projects.

GCRF budgetary allocations

- 2.15 Just over half of the GCRF budget (£809 million) has been divided between the primary delivery partners, each of which announces its own funding calls for research proposals and awards research grants. The allocation of the budget between Research Councils was based on a formula developed by the Research Councils themselves, considering their previous allocation and absorptive capacity for ODA funds. The Academies and the UK Space Agency are unclear on how exactly their allocations were determined. BEIS agreed with the four Funding Councils that they would distribute part of the GCRF as Quality Related grants to higher education institutions. The bulk went to HEFCE, which distributed GCRF funds to English universities based on how well they scored in the 2014 Research Excellence Framework exercise. The Scottish Funding Council followed the same procedure, while in Wales and Northern Ireland, the Quality Related funding was awarded in proportion to institutions' Research Council income. BEIS regards this as a valuable unhypothecated element (ie grants awarded without restrictions on how to spend them) of the GCRF.
- 2.16 After a slightly lower allocation in the first year (2016-17), delivery partners initially received constant allocations for each of the remaining four years (see Table 3). In addition to these yearly allocations, there was an unallocated pot of £691 million. This came into operation in the second year, rising steeply from zero in 2016-17 to £315 million in 2020-21.²²

17. See footnote 6

18. See footnote 16.

19. DAC list of ODA recipients, OECD, 2015, [link](#).

20. UK Strategy for the Global Challenges Research Fund (GCRF), Research Councils, Academies and UK Space Agency, June 2017, p. 5, [link](#).

21. The Newton Fund works with the same list of delivery partners, with the exception of the UK Space Agency, and the addition of the Met Office and Innovate UK.

22. Further information is available in: *Allocation of science and research funding 2016/17 to 2019/20*, BEIS, March 2016, [link](#).

- 2.17 BEIS has decided to spend £476 million (so far) of this unallocated pot through two ‘Collective Funds’ for interdisciplinary, challenge-led research activities, one for Research Councils UK and one for the Academies. All Research Councils and all Academies can get together to make joint bids for allocations from their respective Collective Funds, thus bringing the different academic disciplines together to tackle particular development challenges in a comprehensive manner. Any additional funding provided to the Research Councils through this route requires a corresponding contribution to the four Funding Councils for Quality Research based on a previously agreed distribution, equivalent to around 30% of the funding provided to the Research Councils. There have also been instances where two or more Research Councils have decided to issue cross-disciplinary calls for applications from their own allocated funds (such as the first example in Box 5 and the joint calls in Table 5). However, the Collective Funds seek to deliver large-scale and transformative research that maximises the overall impact of the GCRF.²³ As research funding is traditionally organised by discipline, the Collective Funds are potentially the most innovative element of the GCRF, although they are not mentioned in the GCRF Strategy. The strategy recognises that complex global development challenges (such as improving nutrition or creating sustainable cities) call for multifaceted solutions.
- 2.18 Research Councils UK has proposed that 12 to 15 Research Hubs be established to promote transformative, interdisciplinary research on specific development goals. It launched a call in July 2017 to establish these.²⁴ So far, BEIS has allocated £102.8 million from the Collective Fund for Research Councils towards the creation of these Research Hubs and £198.1 million to growing research capability.²⁵

Box 5: Examples of research commissioned by the GCRF

1. A joint call by Research Councils, £16.7 million.

The Foundation Awards in Global Agricultural and Food Systems Research is a call for proposals by BBSRC, MRC, NERC, ESRC and AHRC on new approaches to tackling agricultural challenges across the developing world, working with southern partners.²⁶ An example award: *Targeting virus transmission in a vital crop for African food security*,²⁷ implemented by the University of Cambridge in partnership with the Kenyan International Livestock Research Institute.

2. Economic and Social Research Council, £4.2 million.

The *RELIEF: Refugees, Education, Learning, Information Technology, and Entrepreneurship for the Future* Centre.²⁸ This Centre is hosted by University College London, in partnership with Future Learn and the University of Geneva. It will research pathways to inclusive growth in the context of mass displacement and movement of people around the world.

3. Royal Academy of Engineering, 15 pilot projects, maximum value per project, £40,000.

The *GCRF Africa Catalyst: Capacity Building of Professional Engineering Institutes*. Lead applicants must be not-for-profit institutions in sub-Saharan Africa with a UK partner. The intended outcome is an improved engineering education, professionalism and evidence base for the role these institutions play in development. An example award: a Federation of African Engineering Organisations project to collect data on women in science, engineering and technology in Nigeria, Rwanda and Malawi.²⁹

4. UK Space Agency, £11.4 million.

The *Earth and Sea Observation System for Malaysia* is implemented by a consortium of 13 UK companies led by the UK’s Satellite Applications Catapult,³⁰ in partnership with the National Defence University of Malaysia. The EASOS programme will deliver, trial and evaluate solutions for flood risk, marine pollution and illegal logging to relevant Malaysian government departments.

23. The unallocated pot will also be used to provide financial flexibility for BEIS in dealing with its overall ODA spend to ensure commitments on aid and science are being met.

24. Details on the Interdisciplinary Research Hubs: see website, [link](#).

25. Details on the growing research capability call: see website, [link](#).

26. Details on the Foundation Awards: see website, [link](#).

27. See website, [link](#).

28. Details on RELIEF: see website, [link](#).

29. Federation of African Engineering Organisations website, [link](#).

30. EASOS website, [link](#).

The award process

- 2.19 The way in which GCRF funding is awarded to particular research institutions mirrors the existing dual system for distributing public funding of research. On the one hand, the Research Councils, Academies and UK Space Agency provide funding for specific research projects. Following thematic calls for applications, these projects are selected on a competitive basis using existing mechanisms for judging research proposals on their scientific or academic merit. In contrast, the four regional Funding Councils do not use a competitive grant system, but provide GCRF funding to higher education institutions based on their overall research excellence or - in the case of Wales and Northern Ireland - in proportion to institutions' Research Council income. BEIS has set out broad funding criteria for its delivery partners to follow, while allowing them considerable autonomy in designing the award process.
- 2.20 The Research Councils and Academies use a process of peer review to select projects for funding, based on competition across research providers. These competitive processes are long-standing, based on peer review. They have been modified to reflect the GCRF's requirements. These include screening and checking for ODA compliance, and expanding the size and composition of peer review colleges to reflect the diversity of applications and the range of knowledge required to assess them.
- 2.21 The first award criterion is ODA compliance, used as an initial test for eligibility. In June 2016, delivery partners issued a joint guide to applicants summarising the ODA eligibility rules. Applications are required to pass three ODA compliance checks:
- An initial screening by delivery partner staff, who reject non-compliant bids.
 - A further check at peer review stage.
 - An additional review at the Assessment Panel stage. Some Research Councils informed us that they use "a stronger ODA thread" as the deciding factor if two applications are tied on other criteria, such as research excellence.
- 2.22 With the exception of the UK Space Agency, rejection rates based on lack of ODA compliance have been low (see Box 7 on ODA eligibility). In interviews, key stakeholders across the board agreed that the ODA qualification threshold was relatively easy to meet.
- 2.23 Beyond ODA compliance, the GCRF Strategy sets out four other criteria for assessing grant applications:
- problem and solution focus
 - research excellence
 - likelihood of impact
 - capacity building and partnerships.

Research excellence and clearly identified pathways to impact are standard conditions for UK public research funding, while the other two criteria are features of the GCRF. The GCRF Strategy identifies a range of options for achieving impact, including creating knowledge, developing a stronger evidence base and promoting effective use of knowledge, technology and innovation. The strategy states that "the GCRF will support those activities that can demonstrate the strongest potential for impact, recognising that research outcomes can be difficult to predict and pathways to impact can be complicated."³¹ The delivery partners have used a variety of different types of funding calls to disburse GCRF funds, ranging from pump-priming awards, cross-council foundation awards, rapid response research grants and large multidisciplinary capacity building grants.

- 2.24 It has been left to individual delivery partners to determine how best to adjust their award processes to include southern partners, and to decide on the nature and extent of partnerships sought. For the Research Councils, all bids must be led by a UK partner. Often Research Councils place limits on the proportion of funding from any single grant that can go to southern partners, with some exceptions. For instance, the Medical Research Council has a long history in sub-Saharan Africa and the Caribbean, funding field research and in-country partners.

31. UK Strategy for the Global Challenges Research Fund (GCRF), Research Councils, Academies and UK Space Agency, June 2017, p. 6, [link](#).

There are also exceptions among the Academies: the Royal Academy of Engineering awarded 24 out of 55 grants to lead partners in African countries, and the Royal Society has long-standing partnerships with sister Academies overseas and has significant experience of funding programmes involving southern partners, particularly in Africa. Projects funded by the UK Space Agency do not require UK-based research institutions as lead partners.

- 2.25 The four Funding Councils distribute GCRF funding to higher education institutions using an established system of grants (known as 'Quality Related' research funding), based on a periodic assessment of their research excellence. HEFCE and the Scottish Funding Council either added the GCRF funds to existing grants or made as a separate payment using the same distribution formula. The other two Funding Councils (in charge of a small proportion of the GCRF funds) made separate payments in proportion to research council income. The funds are allocated to support the research institutions' ODA-related activities, but not to specific research proposals. The allocation formula therefore does not reflect either the record of the individual research institutions in development-related research or any specific plans for ODA activities.

Progress to date

- 2.26 The rollout of the GCRF has been rapid, as the timeline in Figure 3 shows. In the first year of operations, the delivery partners had only a few weeks to launch their first calls for research proposals, to allow enough time to award their allocations within the year.
- 2.27 There has been an evolution in the mechanisms used by the delivery partners to award funds. For the first round of calls in May 2016, with little time to prepare, delivery partners each launched their own call for applications. Since then, there have been more thematic and joint calls, involving several Research Councils or Academies. Most recently, as the two Collective Funds have come into operation, there have been interdisciplinary calls launched on behalf of all the Research Councils or all the Academies. An overview of calls is included in Table 5 below, showing that most calls so far have been by individual delivery partners (27), with half as many joint calls (14), and three calls under the Collective Funds. Individual awards range from £40,000 to £4.18 million.



Table 5: GCRF calls: individual, joint, collective

Mechanisms	Examples
<p>Individual calls, administered by one delivery partner.</p> <p>27 calls for proposals to date.</p>	<ul style="list-style-type: none"> • Tackling global development challenges through engineering and digital technology research – EPSRC.³² • Translating Cultures and Care for the Future innovation call – AHRC.³³
<p>Joint calls, administered by two or more delivery partners.</p> <p>14 calls for proposals to date.</p>	<ul style="list-style-type: none"> • Non-Communicable Disease foundation awards – MRC, AHRC, BBSRC, ESRC, NERC.³⁴ • Forced displacement of people – ESRC, AHRC.³⁵
<p>Collective Fund calls from the unallocated pot of GCRF funding.</p> <p>Three initiatives to date.</p>	<ol style="list-style-type: none"> 1. Growing research capability to meet the challenges faced by developing countries – Research Councils.³⁶ 2. Global Challenges Interdisciplinary Research Hubs – Research Councils.³⁷ 3. Resilient Futures Initiatives - Academies.

32. Details on the EPSRC call: see website, [link](#).

33. Details on the AHRC call: see website, [link](#).

34. Details on the NCD Foundation Awards: see website, [link](#).

35. Details on the ESRC-AHRC call: see website, [link](#).

36. Details on the capability building call: see website, [link](#).

37. Details on the Research Hubs call: see website, [link](#).

3 Findings

- 3.1 In this section, guided by our three review questions, we set out our findings on the GCRF's **relevance** to the government's ODA strategy, its **effectiveness** in achieving the goals set for it, and how well the Fund is **learning** from other ODA-research funding mechanisms, other Whitehall departments and its own experience. We assess whether the GCRF is likely to achieve its objectives and provide good value for money, given its progress to date, and we point out areas where the Fund's performance needs to improve. We do not make any final evaluative judgments on the GCRF and its potential development impact, given that many aspects of its structures and procedures are still evolving.

How well does the GCRF ensure relevant and potentially impactful research?

Systems for ensuring ODA compliance are generally sound, but weak in the case of the Funding Councils

- 3.2 For the Research Councils, the Academies and the UK Space Agency, we find that the procedures and processes for ensuring that GCRF-funded research meets the international ODA definition are robust. BEIS left it to these delivery partners to develop their own processes for screening applications for ODA compliance, with checks at several points during the assessment (see paragraphs 2.21 and 2.22). Feedback from the delivery partners is that this task has absorbed a considerable amount of time and effort.
- 3.3 One of the challenges is to ensure that the research continues to be ODA-compliant over the lifespan of the project. This is particularly challenging for basic scientific research, where the potential applications of research findings may not become apparent during the project's lifetime. The Economic and Social Research Council is in the process of developing procedures to ensure continued ODA compliance. Other delivery partners will need to adopt similar procedures.

Box 6: Views from GCRF primary delivery partners

ICAI surveyed the main delivery partners – the Research Councils, the Academies and the UK Space Agency – on various aspects of the GCRF, including the development of the GCRF Strategy, research call criteria, ODA compliance, reporting and learning. The table below summarises their views.

What has broadly remained the same compared to existing research calls?	What has changed under the GCRF?
<ul style="list-style-type: none"> The majority of delivery partners noted that it was "easy and straightforward" to adapt their calls to the GCRF challenge areas. For some, this was due to the broad alignment of the challenge areas with the Sustainable Development Goals. Delivery partners broadly agreed that the guidance on ODA compliance was clear and easy to use. Virtually all delivery partners noted that generating applications of sufficient quality (to meet the criteria of research excellence) was not harder under the GCRF than for their usual research calls. Delivery partners reported that it was relatively straightforward to adapt their panels to meet GCRF requirements, but some noted that it was challenging to ensure that international development expertise was well represented. 	<ul style="list-style-type: none"> Several delivery partners said the GCRF has encouraged greater interdisciplinarity (between the Research Councils and between the Academies, but not across all delivery partners). Virtually all noted that the Collective Funds present a significant new opportunity for their future work. When asked about the most challenging aspects of working with the GCRF, the most common responses were: <ul style="list-style-type: none"> Short timelines and deadlines to prepare research calls (some reported turnaround times of 24 hours or a week), although this has improved over time. Re-orienting parts of the UK research community towards an international development focus. Heavy reporting requirements. Uncertainty about the long-term sustainability of the GCRF.

3.4 For their first Collective Fund call, the Research Councils created a strong incentive for the universities to screen their own applications for ODA eligibility before submission by accepting only two applications from each university. As a result, their failure rate has been low. The UK Space Agency, which was new to the international development area, had some difficulties in the beginning, but worked with DFID to gain a better understanding of the criteria and engaged an external consulting firm to support the process.

Box 7: Testing for ODA eligibility

The GCRF delivery partners issued guidance on ODA compliance in June 2016,³⁸ advising potential applicants to consider the following questions:³⁹

1. Which country/countries on the DAC list will directly benefit from this proposal and are these countries likely to continue to be ODA-eligible for the duration of the research?
2. How is your proposal directly and primarily relevant to the development challenges of these countries?
3. How do you expect that the outcome of your proposed activities will promote the economic development and welfare of a country or countries on the DAC list?

The delivery partners use an ODA decision tree when assessing the ODA compliance of bids (adapted from an existing ODA compliance flowchart developed by the ESRC). The graphic below presents a simplified version of the decision tree:



The table below presents ODA compliance failure rates across delivery partners:⁴⁰

Delivery partner	ODA compliance failure rates (aggregate across calls)
RCUK	1 out of 188 (0.5%)
BBSRC	18 out of 522 (3.5%)
MRC	5% of the Foundation Awards
EPSRC	17 out of 162 (10%)
AHRC	"Very small proportion of awards screened out due to ODA non-compliance"

ESRC	7 out of 339 (2%)
NERC	6 out of 214 (2.8%)
British Academy	9 out of 139 (6%)
Royal Society	8 out of 77 (10%)
Royal Academy of Engineering	8 out of 117 (6.8%)

38. With the exception of the UK Space Agency which issued its own specific guidance, since it follows a procurement-type model to award grants.

39. *Official Development Assistance: Global Challenges Research Fund Guidance*, RCUK and Academies, 2016, p. 4, [link](#).

40. AMS ran workshops, so did not issue calls. STFC has not issued any calls so far, as it had a zero allocation in Year 1. The RCUK had extensive pre-submission requirements, with universities pre-screening their bids. The only non-compliant bids were from specialist institutions. UKSA used a procurement-type model, referred to in footnote 8. Bids were externally assessed by a third party against six distinct criteria including alignment to the ODA definitions. In the first call, 16 out of 49 bids were excluded.

- 3.5 For GCRF resources allocated through the Funding Councils, we find the ODA compliance processes to be weak. The Funding Councils were required by BEIS to meet the requirements of the GCRF Strategy, including guidelines on ODA eligibility, and these requirements were in turn passed on to the recipient research institutions. However, because most of the funding took the form of block grants, rather than funding for specific research proposals, and in some instances was mixed with non-ODA funding, the allocation process did not lend itself to the kind of detailed screening used by the Research Councils and Academies. The research institutions are not required to report to the Funding Councils on their use of the ODA funds on a line-by-line basis, as would be usual in ODA reporting.
- 3.6 To check that the funds were being used for ODA-eligible purposes, the Higher Education Funding Council for England studied a sample of 28 of the 122 research institutions, covering over half of the allocation by value. It found that only seven of the institutions were able to account directly for their total Quality Related ODA grant, as the funds had been mixed with other allocations. The institutions reported a range of activities that had been supported with the GCRF funds, including capacity building of partners, additional funding for research supported through the Research Councils, promotion of research findings and the cost of bidding for additional ODA resources, including travel expenses. As described, it is not clear whether all funds went to activities that were ODA-eligible. For 2017-18, HEFCE plans to survey all recipients for their use of ODA funds, while noting the value of “unhypothesized” or unrestricted funding for research institutions.⁴¹
- 3.7 On the basis of the information shared with us, we find that GCRF funding spent through the Funding Councils has not been subject to a systematic process capable of verifying its use for ODA-eligible activities. We have brought this to the attention of the government for its further consideration.

The criteria for assessing potential impact are not clear enough

- 3.8 As well as meeting the ODA eligibility threshold, grant applications to the GCRF are judged on four criteria:
- i. **Problem and solution focused:** The research must address one of the 12 challenge areas set out in the GCRF Strategy, and should enable positive change in developing countries.
 - ii. **Research excellence:** The proposal must have world-class academic potential.
 - iii. **Likelihood of impact:** The project should offer a compelling plan for how the research findings can make a positive difference in developing countries.
 - iv. **Capacity building and partnerships:** The proposal should include plans for strengthening UK and global development research capacity and capability by forging strong and enduring partnerships with research partners in the global South.
- 3.9 BEIS left it to the delivery partners to develop these criteria, including their relative weight, and their methods for assessing proposals. To meet the first criterion, proposals only need to demonstrate their relevance to one of the Sustainable Development Goals, which is not an onerous test. In practice, the delivery partners have followed their established practices for assessing research excellence using peer review panels. There has been a strong response from the research community to calls for proposals, ensuring enough credible applications for a competitive bidding process. The process is therefore strong at ensuring research excellence.
- 3.10 Pathways to impact is a more difficult area for the delivery partners to judge. Each proposal must specify how the researchers will ensure that their findings make a difference (see Box 8). This includes identifying and reaching out to potential beneficiaries of the research and developing strategies to promote uptake of findings. The GCRF does not specify the balance of basic and applied research (or discovery, translational and applied research, to use the terminology from the Nurse Review – see Box 10) it hopes to achieve. Given the stated ambition to be both problem and solution focused, we would expect to see a more articulated approach towards the achievement of impact.

41. HEFCE sampling of higher education institutions in relation to GCRF and Newton Funding, paper presented to the BEIS R&I ODA Officials Group, 6 July 2017, unpublished.

- 3.11 The challenge for applicant institutions is that the audience for research on development challenges is diverse and, for some delivery partners and research institutions, unfamiliar (including governments, firms and civil society organisations in developing countries, the UN and other multilateral organisations, and aid donors in OECD countries). We would not necessarily expect UK research institutions to have links to decision makers across the international development field. This opens the question of whether impact activities for GCRF research should be left to the research community or whether it should also be supported by other means, such as through greater coordination of research uptake on common topics. It may be that this emerges as part of the Research Hubs, strategic portfolios or the proposed work of “challenge leaders”.
- 3.12 GCRF resources distributed to universities as Quality Related funding were not subject to any advance assessment of their potential impact by the Funding Councils. While they were allocated to research institutions with a track record for research excellence, the institutions were not required to present any proposal for ODA-eligible research in advance of receiving the funding. HEFCE explains that its GCRF funding played “a unique underpinning and complementary role alongside project funding”.⁴²

Box 8: Assessing pathways to impact

According to its strategy, the GCRF will “support those activities that can demonstrate that they have the strongest potential for impact, recognising that research outcomes can be difficult to predict and pathways to impact can be complicated.”⁴³ The GCRF suggests that the likelihood of beneficial impact increases:

“If the research is orientated towards a problem or challenge affecting developing countries currently or in the future, where there is potential to benefit a large number of people to a significant degree;

If the academics and research team can demonstrate experience or understanding of successful impacts within the specific context; relevant expertise might be located within both UK and overseas partners;

If stakeholders that are close to the problem, from the voluntary and community sector, commercial and private sector and/or public sector and government, are actively involved in the research. Particularly through the whole life cycle from initiation, design, progression, knowledge exchange and application of the research.”⁴⁴

The Strategic Advisory Group has set out a list of criteria to assess the **likelihood of impact** of individual GCRF applications. The proposals should:

“contain robust indicators that show: how they will create the knowledge to bolster communities’ resilience to environmental and human-made challenges, such as climate change, epidemics, conflict, and other emergencies; how they will provide a stronger evidence base for sustainable development policy and practice and help both donor and recipient governments to spend limited resources wisely; how they will encourage the effective use of knowledge and technology to create opportunities for economic development, community and business engagement, commercialisation and innovation, leading to new and improved products, processes, services, and business models.”⁴⁵

- 3.13 In our survey of research leaders and consortium members, greater focus on research uptake and the sustainability of outcomes were identified as areas where the GCRF could be improved (see Box 9).

42. See footnote 39.

43. *UK Strategy for the Global Challenges Research Fund (GCRF)*, Research Councils, Academies and UK Space Agency, June 2017, p. 6, [link](#).

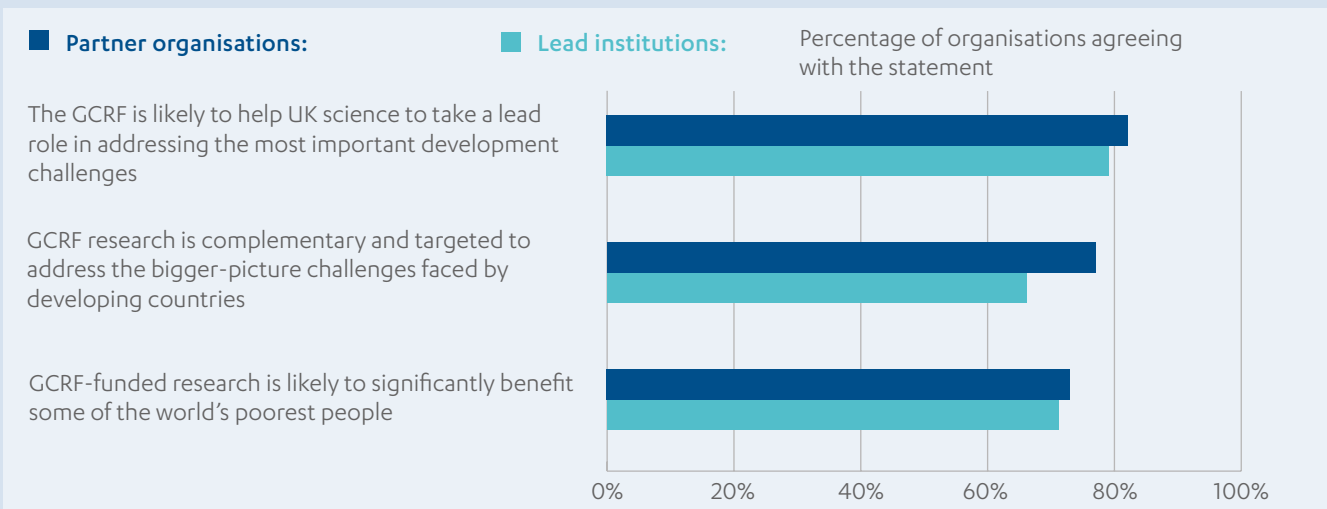
44. *Official Development Assistance: Global Challenges Research Fund Guidance*, RCUK and Academies, 2016, p. 3, [link](#).

45. *Strategic Advisory Group: Criteria for GCRF Funding*, January 2017, [link](#).

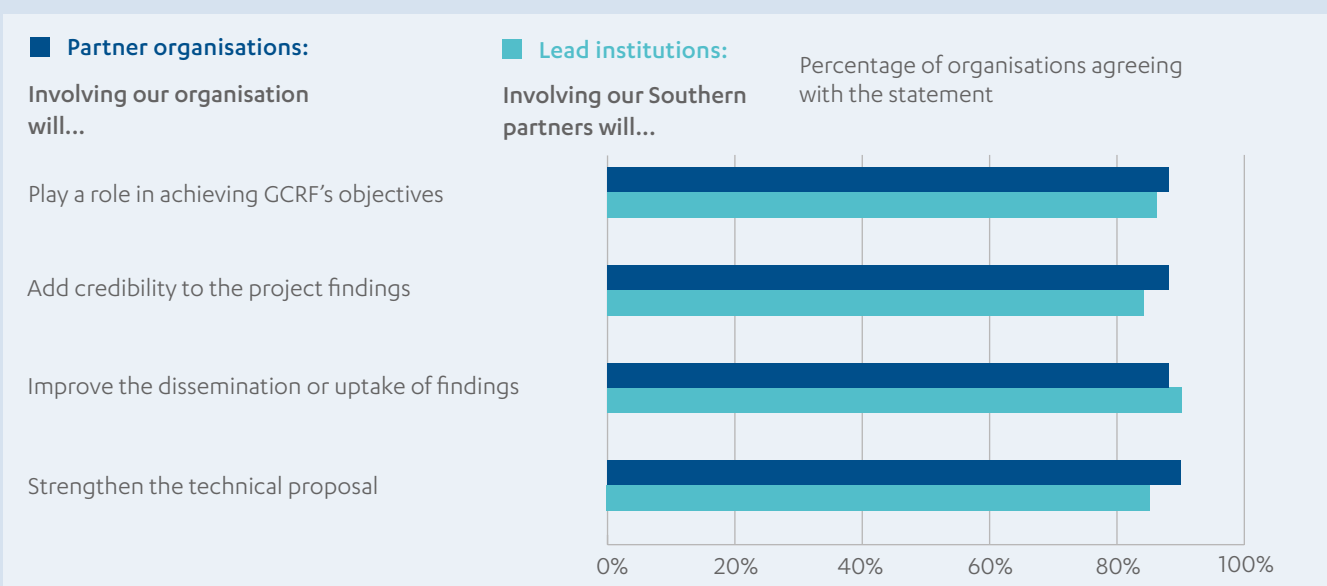
Box 9: Survey findings from lead applications and partner organisations

We surveyed lead applicants and their partner organisations. 128 lead applicants responded; 43 of these had been successful, 33 unsuccessful and 42 did not yet know the result. 169 partner organisations responded, almost half from ODA recipient countries.

Lead and partner organisations had similar views on the GCRF's potential to meet its objectives:



Both groups were broadly positive about the importance and contribution of southern partners:



When asked how the GCRF could be improved, the most common proposals, in order of frequency, were as follows:

Partner organisations	Lead institutions
<ul style="list-style-type: none"> • More time to prepare applications to enable preparation of better proposals. • Greater opportunity and access for southern partners and other organisations currently excluded from leading proposals. • Improved clarity around proposal requirements, transparency of decision making and/or more feedback. • Greater emphasis on the uptake of research and the sustainability of outcomes. 	<ul style="list-style-type: none"> • More clarity around the strategy, priorities and clarity of focus of the GCRF. • More time given for applications to enable preparation of better proposals. • Greater opportunity and access for southern partners and other organisations currently excluded from leading proposals. • More flexibility about the way in which projects are implemented. • More focus on research uptake and sustainability. • Improved transparency of decision making and/or quality of the peer review process.

The GCRF has been slow to develop mechanisms for managing its portfolio in a strategic way

- 3.14 While the assessment criteria for individual project applications are sound, the GCRF has been slow to develop mechanisms for managing its overall research portfolio in a strategic way, so as to maximise its contribution to global development challenges. Its funding criteria prioritise ODA compliance, research excellence and individual 'pathways to impact', all of which are necessary and appropriate. However, a competitive application process based on these criteria may lead to a scattered portfolio shaped by the research interests of applicants, rather than one focused on addressing high-priority and high-impact development challenges.
- 3.15 This reflects a gap in the GCRF's strategy. Rather than selecting specific development issues to which its research would contribute, it chose to equate global challenges with the entire global development agenda, in the form of the Sustainable Development Goals. While these are a useful frame of reference for identifying global development challenges, the strategy does not include any overarching analysis of the research gaps in the international development field or an assessment of where the UK research community would be best placed to contribute. In some areas, such as medical research, where there is long-standing UK work on global development challenges, the Research Councils and their peer review panels may be in a position to make this assessment. But the GCRF's portfolio to date is scattered across the 12 challenge areas, rather than focused around particular development priorities of the UK government or its partner countries. BEIS has informed us that the wide remit was deliberately chosen, arguing that productive, innovative approaches and solutions to development challenges are best facilitated through understanding the interactions between the Sustainable Development Goals. However, we believe such a broad approach, without some means of shaping the portfolio for strategic impact, risks stretching the GCRF resources too thinly. This may make it difficult for the Fund to achieve its goal of funding "truly original and transformative approaches to multidimensional challenges" of economic development, poverty alleviation and humanitarian emergencies.⁴⁶ It will also make it difficult to ascertain the overall impact achieved through this major increase in UK development research.
- 3.16 Insufficient strategic direction has been exacerbated by the rapid design and implementation of the GCRF. In interviews, stakeholders referred consistently to the pressure to spend in the first two years – ahead of the development of funding criteria (published in January 2017) or an overall strategy (June 2017). The Research Councils, for example, made awards worth almost £195 million before the GCRF funding criteria were agreed. Spending decisions have also preceded the development of a theory of change (defining goals of social change and mapping pathways to achieve them), evaluation framework or criteria for assessing value for money. These are to be developed later in 2017 by an external service provider, as part of an overall evaluation contract.⁴⁷
- 3.17 The speed of implementation has also meant that the delivery partners have tended to scale up established activities, rather than take on new research challenges or support areas that were previously underfunded. A few of the 12 challenge areas (see Table 2) have received more funding than others without an explicit decision to prioritise them – in particular, Challenge 1 ("secure and resilient food systems") and Challenge 2 ("sustainable health and wellbeing"). In contrast, Challenge 10 ("understand and respond effectively to forced displacement and multiple refugee crises") and Challenge 11 ("reduce conflict and promote peace, justice and humanitarian action") received fewer awards – even though both areas are given high priority in the UK Aid Strategy.
- 3.18 The £476 million allocated to the Collective Funds has the potential to tip the balance towards a more strategic portfolio. The Collective Funds take a more active approach to tailoring impactful, interdisciplinary research portfolios and therefore offer a more convincing approach to harnessing UK research expertise to address global development challenges.

46. *Global Challenges Research Fund (GCRF) Strategic Advisory Group: Criteria for GCRF Funding*, RCUK, January 2017, p. 1, [link](#).

47. Contracted via DFID's Global Evaluation Framework.

- 3.19 There is potential for the GCRF to sharpen its focus on development impact. The July 2017 call for the establishment of 12 to 15 challenge-led and impact-focused Interdisciplinary Research Hubs is a welcome development. There are also plans to develop six strategic portfolios,⁴⁸ to be supported by ‘challenge leaders’ who are charged with “maximising the coherence and impact of each portfolio” and working closely with the Research Hubs. Exactly how the Research Hubs and portfolios will fit together is still to be determined.
- 3.20 The specification and the terms of the role of ‘challenge leader’ are still to be determined too. These may be senior academics who can advise and support the development of interdisciplinary portfolios. However, achieving development impact may require not just scientific expertise, but other skills such as experience in managing large challenge funds, research uptake and monitoring and evaluation. It may also be helpful to consider how the Research Hubs can link researchers with potential users of research findings in order to increase uptake and sustainability. The Research Hubs will not start work until December 2018, more than halfway through the GCRF funding cycle. It is proposed that they run for five years, beyond the lifetime of the GCRF.

The high level of autonomy given to delivery partners poses challenges for portfolio management

- 3.21 As a justification for its lack of emphasis on portfolio management, BEIS stresses the importance of respecting the Haldane Principle for public funding of research. This long-established principle, now enshrined in the Higher Education and Research Act, states that decisions on government funding for research proposals should be undertaken by the research community itself, through peer review. This protects academic independence and ensures that funding is directed towards high-quality research. By using existing Research Council processes for allocating funds, with peer review to identify academic excellence, the GCRF follows this principle.
- 3.22 As well as allowing its delivery partners full autonomy on decisions on individual research applications, BEIS has given them substantial autonomy in setting the principles and strategies for allocating GCRF resources, leaving them free to support virtually any ODA-compliant research that meets their academic standards.
- 3.23 In our view, this goes beyond the requirements of the Haldane Principle. BEIS, drawing on expertise from DFID and elsewhere, could have done more to set the strategic direction of the GCRF and guide the delivery partners on how to develop appropriate research funding strategies, based on an assessment of gaps and strengths in the existing scientific knowledge base, the aims of the UK Aid Strategy and research needs in the developing world. This would improve the GCRF’s ability to build a coherent research portfolio and achieve strategic impact on development challenges.
- 3.24 Our conclusion echoes that of the 2015 Nurse Review, released shortly before the launch of the GCRF. Within a framework of scientific independence and integrity, that review called for “an effective dialogue and understanding between researchers, politicians and the public, so that policies and strategies are in place to bring about research that benefits society” (see Box 10).

Box 10: How should government fund the sciences? The Haldane Principle and the Nurse Review

Research funding in the UK has traditionally been allocated according to the Haldane Principle, named after an almost century-old report by Lord Haldane that discussed the role of governments and the autonomy of the research community in determining research funding priorities. The Haldane Principle has over time come to mean that decisions on individual research proposals should be taken by the research community through peer review, based on the scientific merit and likely impact of each proposal. This principle was enshrined in law in the March 2017 Higher Education and Research Act.⁴⁹

48. According to the document ‘Building the GCRF Portfolio’, shared with us in response to our interview questions. In this document, the six portfolios are: 1. Global health, 2. Food systems and security, 3. Protracted conflict, refugee crises and forced displacement, 4. Education, 5. Resilience to environmental shocks and change, 6. Cities and sustainable infrastructure. These will each be led by one research council, except 4. Education, which will be jointly led by the ESRC and the British Academy.

49. Higher Education and Research Bill, amendments tabled February 2017. Government amendments 189 to 191 make changes to clause 99 to enshrine the Haldane Principle in law and require the secretary of state to have regard to the Principle when making grants or directions to the Research Councils, [link](#).

The 2015 Nurse Review, led by Sir Paul Nurse, elaborates on the Haldane Principle. It argues that the government's research and innovation strategy, developed in collaboration with the Research Councils, should foster research that benefits society and contributes to the public good. It affirms that scientific knowledge production functions best when driven by curiosity, freedom and openness, grounded in integrity and respect for the scientific method. It places research into three categories, **discovery**, **applied** and **translational**, which exist along a continuum.

- **Discovery research**, sometimes referred to as basic research, is driven by the curiosity of researchers, using the scientific method of hypothesis testing and adjustment to develop and fill gaps in existing scientific knowledge.
- **Applied research** is targeted at achieving specific objectives and outcomes and relies on two conditions to be successful: the objectives must be well chosen, which requires an understanding of the needs of potential beneficiaries; and the knowledge base on which the applied research relies must be sufficiently well developed for the application to be generally foreseeable.
- **Translational research** aims to bridge the gap between discovery and applied research. It is broadly directional (without prematurely focusing on a narrow application) and aims to increase the knowledge base on which particular applications can be built.

While research funding decisions should be made by those best placed to judge the research, this need not always be limited to scientists and academics through the peer review process. The Nurse Review notes that: "Good policies and strategies developed by researchers who know how science operates, working together with policy makers and those responsible for societal and commercial interests, are essential for a successful research endeavour."

The GCRF supports research in all three categories of discovery, applied and translational, and does not attempt to direct the balance between them. The Fund's ambition to achieve transformational impact on development challenges might suggest that it should focus more on translational and, when appropriate, applied research.

The GCRF's governance structures are not conducive to maximising strategic impact

- 3.25 The challenges in managing a research portfolio focused on the most pressing global development challenges are mirrored in the GCRF's governance structures. When designing the GCRF, BEIS adopted a governance model close to the Newton Fund, which it was already managing. Both funds fall under the responsibility of the BEIS Research and Innovation ODA Board and involve similar delivery partners. BEIS now has a single delivery team that covers both the GCRF and the Newton Fund.
- 3.26 Formally the responsibility for the GCRF Strategy rests with the BEIS Research and Innovation ODA Board and the strategy was signed off by the science minister. The Board discussed the strategy and raised the issue of the need for more strategic discussion around the GCRF portfolio. Strategy development has in practice, however, been left to a number of advisory bodies – in particular, the Strategic Advisory Group. It is made up largely of senior academics, serving on a voluntary basis alongside their regular jobs. This group has met five times so far, compared to the two meetings of the BEIS Research and Innovation ODA Board. The Strategic Advisory Group developed the funding criteria and is responsible for the development of a strategic research agenda, prioritising challenge topics and promoting coherence across delivery partners. While the Strategic Advisory Group has an important role, BEIS should exercise stronger leadership over the strategic direction of the Fund and ensure the value for money of its expenditure.
- 3.27 Along with the important role played by the Strategic Advisory Group, we note the leadership role taken by the representatives of the Research Councils and the Academies, on behalf of the delivery partners, in developing and delivering the GCRF Strategy to BEIS. Likewise, the value for money, ODA compliance and financial management has been delegated by the Board to an Officials Group. Overall, we find that formal authority and functional roles are not well joined up across the GCRF, which blurs the lines of accountability.

Box 11: A bigger role for the Academies – a positive case study

The four National Academies (the Royal Academy of Engineering, the Royal Society, the Academy of Medical Sciences and the British Academy) bring another dimension to the GCRF. This includes the expertise of their fellows, extensive and well-established international networks, global convening power, developing people and institutional capacity and supporting research and innovation.

In January 2017, the Academies put forward a Collective Fund proposal called the **Resilient Futures Initiative**. It is the first time that all four Academies will work together under one umbrella theme, thus representing a significant innovation under the GCRF.

The Academies believe the Resilient Futures Initiative will break down disciplinary silos and allow them to join forces on a large-scale, cross-cutting initiative. They will also coordinate closely with the Research Councils' **Building Resilience** programme (led by NERC, AHRC and ESRC), to ensure that the two are mutually enhancing. The Resilient Futures Initiative is governed by a cross-Academy Steering Group, made up of Fellows from all four Academies with expertise in this area.

The Resilient Futures Initiative consists of two key delivery pillars, comprising several related programmes:

Delivery Pillar 1: Future Talent Generation

This pillar has four key components:

- future leaders fellowships
- early career global challenges fellowships and awards
- frontiers of development meetings
- networking grants.

Delivery Pillar 2: Challenge-led partnerships

Research grants for interdisciplinary UK-based research teams and researchers from the global South on the topics of:

- resilience to crises and extreme events, as well as effective responses
- resilient resources and resource security
- urban resilience
- human resilience.

The first call for proposals, with a June 2017 deadline, focused on cities and infrastructure.⁵⁰

Box 12: The UK Space Agency: a new actor in delivering ODA

The UK Space Agency (UKSA) has a GCRF-funded programme called the International Partnership Programme (IPP). The IPP has a budget of £152 million, £32 million in 2016-17 and a flat rate of £30 million for the remaining four years.⁵¹ The primary goal of the IPP is to “deliver a space-enabled ODA-compliant programme that provides a measurable and sustainable economic or societal benefit to its beneficiaries”.⁵² IPP funding is available to both UK and non-UK companies. All projects are mapped to the UN Sustainable Development Goals, and any benefit to the UK in terms of export opportunities must be secondary to the goals of poverty reduction.

The UKSA element of the GCRF focuses more on innovation than research and may be where we can most clearly identify the 'commercialisation of innovative technologies' referred to in the BEIS ODA Statement of Intent.⁵³

50. GCRF Cities and Infrastructure website, [link](#).

51. This was subsequently revised down to £23 million as the UKSA could not spend the full allocation in the first year. *International Partnership Programme (IPP) Strategy*, April 2017, UK Space Agency, p. 2, unpublished.

52. *International Partnership Programme (IPP) Assurance Mechanism*, August 2016, p. 2, unpublished.

53. *Research and Innovation: Official Development Assistance (ODA) Statement of Intent*, BEIS, June 2017, [link](#).

The UKSA had no previous experience of spending ODA before the GCRF. It sought advice from DFID and engaged a third party to set up an ODA assurance system, including a logframe, a theory of change and a monitoring and evaluation plan. The UKSA was thorough in its ODA compliance screening. It had a notably higher ODA compliance failure rate than other delivery partners, attributing this to a general lack of awareness about ODA funding among the space community. With external support, it has conducted awareness-raising workshops to help improve the quality of bids.

Of the successful bids, most focus on earth observation using satellites. Two examples are:

1. Senegal: A £951,000 (£475,945 UKSA grant) project between Airbus Defence and Space, the UKSA and New Africa Consulting to enable the Dakar City authorities to collect and maintain property information to assist in revenue generation. It uses satellite data to monitor building construction in Dakar, linking it with other data to enable better tax calculations and increased revenue generation for the city.
2. Côte d'Ivoire: A £1.46 million (£934,734 UKSA grant) project between Vivid Economics, the government of Côte d'Ivoire and UN Environmental Programme to create land use tracking and deforestation warning systems. The aim is to reduce forest loss and support local economic development by enabling sustainable revenue generation from the forests.

There are unresolved challenges in working with southern partners

- 3.28 Most of the GCRF calls for applications have included the objective of strengthening research capacity in developing countries – either as an explicit requirement or by encouraging applicants to include southern research partners.
- 3.29 There are both strengths and weaknesses to the GCRF's approach to partnerships and capacity building. The UK Collaborative on Development Sciences, a network of UK government departments and research funders active in international development, has recently published a useful guide to funders on how to ensure equitable and effective research collaborations.⁵⁴ The GCRF has made good progress on a number of the recommendations, including on valuing complementary skills and knowledge, setting an equitable tone to partnerships and widening participation. However, it could have done more to include southern partners (governments, funders and research communities) in the formulation of its research strategies and priorities, especially in the early stages when the Fund's direction was being decided. Some efforts were made to bring in southern perspectives during and following a conference at Wilton Park, outside London, in October 2016,⁵⁵ which explored how the UK can maximise the impact of its growing ODA research investments on development outcomes.
- 3.30 The Research Councils are required to award grants to UK institutions as the lead organisation, who may choose to involve international universities as sub-grantees, and are encouraged to include southern partners.⁵⁶ This requirement means that UK institutions do not have to compete with universities from other OECD countries. However, it can be a hindrance to achieving equal partnerships between UK and southern institutions since, as the UK Collaborative on Development Sciences' guide makes clear, "directing financial and research management through northern institutions is perceived to influence power relations and equitability."⁵⁷
- 3.31 It is left to delivery partners to determine how best to build capacity and partnerships with southern research institutions. Interviewees noted that this was challenging. Some Research Councils and Academies have substantial experience of capacity building. Others noted the difficulty of responding to the triple challenge of the ODA definition, rapidly scaling up research in new areas and working with southern partners.

54. *Building a Partnership of Equals: The role of funders in equitable and effective international development collaborations*, UK Collaborative on Development Sciences, 2017, [link](#).

55. *Knowledge for development: optimising development impact through investments in research*, Wilton Park, October 2016, [link](#).

56. There are also a select number of pre-qualified institutions from outside the UK, [link](#).

57. *Building a Partnership of Equals: The role of funders in equitable and effective international development collaborations*, UK Collaborative on Development Sciences, 2017, p. 1, [link](#).

- 3.32 The task of reconciling research excellence with capacity building and working in partnership in a sustainable way can be difficult. Individuals or institutions that require support in building capacity may not initially be in a position to achieve research excellence.⁵⁸ A longer time frame may be necessary for capacity building partnerships to come to fruition and achieve sustainability.
- 3.33 Delivery partners are also aware of the risk that some southern partners have weak systems for managing funds and require additional support with reporting and accounting. These functions – and the associated fiduciary risks – are devolved to the lead research institutions. For delivery partners with less experience of working with southern partner institutions, this is likely to be challenging.
- 3.34 The inclusion of southern partners has to some extent been hampered by the lack of a clear communications strategy at Fund level.⁵⁹ In the absence of clear guidance from BEIS on the inclusion of southern partners, Research Councils UK has taken the initiative of developing a communications strategy. It is planning a series of engagement events by region in South Africa, Colombia, India and Kenya, to inform potential beneficiary research institutions in the global South of the opportunities available through the GCRF and to encourage a greater diversity of applicants.

The UK's commitment to untied aid

- 3.35 Most of the Research Councils require a UK research institution to be the primary applicant for funds, even though partnerships with southern institutions as sub-grantees are encouraged. This has the effect of excluding universities from both developing countries and other donor countries from applying directly to the GCRF – although both are present in GCRF-funded research consortia. In addition, grants from the GCRF through the Funding Councils are available exclusively to UK higher education institutions.
- 3.36 There is a question as to whether this is consistent with the UK government's commitment to untied aid. 'Tied aid' is aid given on the condition that the funds are used to purchase goods or services from the donor country.⁶⁰ While the international agreement on phasing out tied aid does not cover research funding,⁶¹ the UK government has been committed since 1 April 2001 to untying all of its aid – a commitment reaffirmed in the 2015 Aid Strategy.
- 3.37 We are informed that DFID has provided advice to BEIS on the tying status of GCRF funding, indicating that it could be classified as untied, but BEIS has not yet finalised its reporting. We have requested that BEIS and DFID look further into whether the funding conditions of the GCRF are consistent with the UK government's established position on tied and untied aid.

Delivery partners face potentially significant risks when GCRF funding ends

- 3.38 The GCRF represents a substantial increase in ODA funding for the Research Councils and Academies over a five-year period. It encourages them to invest in longer-term initiatives, such as Research Hubs, and in new international partnerships. Delivery partners are concerned that the sustainability of these initiatives and the impact of long-term research investments may be at risk if there is a 'cliff edge' drop in funding at the end of the GCRF funding cycle in 2021. According to Research Councils UK, it leaves the Research Councils exposed to up to £1 billion in liabilities.⁶² Larger Research Councils may decide to commit their own baseline funding to ongoing projects if GCRF funding does not continue. Smaller Research Councils may not be in a position to do so.

58. This is recognised in the GCRF Strategy.

59. BEIS has a Research and Innovation ODA communications strategy, focusing on the Newton Fund and the GCRF. A priority audience for this strategy is the UK government, including HM Treasury, DFID, the Prime Minister's Office and other departments.

60. The International Development (Reporting and Transparency) Act defines untied aid as: "either not subject to a condition restricting the states from which goods or services may be purchased using the aid, or (if it is subject to such a condition) the states from which goods or services may be purchased using the aid include all the member states of the OECD and substantially all states which receive aid from any source". In effect, this means there are no conditions placed on the recipient country to purchase goods or services from the country providing the aid, [link](#).

61. *DAC Recommendation on Untying ODA*, OECD, 2008, [link](#).

62. *RCUK Transition Plan*, unpublished.

3.39 We would therefore suggest that the government and delivery partners give early consideration to the question of how to ensure the investments will deliver sustainable impact, so that the full value of the GCRF investment can be realised. The BEIS Research and Innovation ODA Board has also identified this as a key risk, highlighting that the delivery profile for the two Collective Funds represents a particular challenge to delivery partners, who are “being asked to scale up funding very rapidly with no guarantee of funding beyond 2020-21 which could present them with some risks over liabilities.”⁶³

Is the GCRF informed by learning?

3.40 Turning to the question of learning within the GCRF, we look first at Fund-specific learning mechanisms and processes, and second at whether and how the GCRF has learnt from other relevant ODA funds, within and outside of the UK government. We then consider the question of cross-Whitehall coordination and how well the GCRF is set up to measure results and value for money.

Learning across stakeholders is active, but largely informal

3.41 The GCRF is yet to develop a theory of change, an evaluation framework or methods for assessing value for money. These core tools for learning at the portfolio level have been contracted out to an external evaluation provider. In the meantime, delivery partners have been actively learning from each other, from the UK Collaborative on Development Science, and from other actors through events such as the Wilton Park conference and a recent Brussels workshop for European Research Funders.⁶⁴ The learning mechanisms are largely informal, involving key individuals at a senior level across the stakeholders.

3.42 While light on formal learning mechanisms, the GCRF has extensive financial monitoring and reporting requirements for delivery partners. In interviews, delivery partners raised concern at the burden posed by three layers of monitoring and reporting on expenditure: one for BEIS, one for DFID (on ODA expenditure) and one for HM Treasury (in respect of the 0.7% Gross National Income commitment). They suggest that this may be required for fast-moving development programmes, but is less appropriate for research, which proceeds at a more deliberate and predictable pace. In response, BEIS informs us that it plans to streamline the reporting requirements.

3.43 The devolution of learning means that BEIS has missed an opportunity to draw lessons from other UK ODA funds. Both the Prosperity Fund and the International Climate Fund chose to contract out the evaluation function. However, a lesson that the GCRF could usefully learn from these other funds is that, while external evaluation expertise may be needed, the learning function cannot be entirely outsourced. The Fund needs clarity on its overall objectives, developing key results indicators at portfolio level and elaborating a theory of change are important learning processes.

3.44 BEIS has not done enough to learn from other bilateral donor funds on how they approached design and implementation at the Fund level. Such learning efforts would have been particularly useful in the early stages of planning and setting up the GCRF. The interaction with actors such as the Swiss Research for Development Fund (r4d, see Box 14) and private foundations with a strong research orientation, such as the Ford Foundation or the Bill & Melinda Gates Foundation (see Box 13), has taken place later in the process, and only at the level of some of the delivery partners, particularly Research Councils UK. Research Councils UK has now begun reaching out to other stakeholders as part of its international benchmarking work, but this comes fairly late in the process.

⁶³. BEIS R&I ODA Board, October 2016.

⁶⁴. Workshop on Research for Development, European Research Funders and Performers' Best Practice, discussion topics, Brussels, 18-19 May 2017.

Box 13: Learning points from wider stakeholders

We interviewed a range of stakeholders, including other donors and southern academic institutions, yielding a number of learning points for the GCRF.

Focus on specific development challenges. Lessons from challenge funds on development practice show that, while competitive application processes help to attract innovative and high-quality proposals, in the absence of clarity of purpose at the strategic level, they are not best suited for maximising portfolio impact.

There are two main ways in which strategic clarity can be achieved. One is to design the portfolio around specific development challenges, identified by the donor based on analysis of the strengths and weaknesses of the research community, what others are doing and where the best opportunities are for impactful research. This was the approach taken by the Bill & Melinda Gates Foundation on the eradication of polio.

The second approach is to begin with a broad portfolio of pilot activities, based on applicant proposals selected on the basis of research merit. Successful pilots are then scaled up over time, to achieve tighter strategic focus. USAID, the Swedish Development Agency and the Rockefeller Foundation have used this model.

Involve beneficiaries. Whichever approach is taken, mechanisms for incorporating southern stakeholders' views are key, both in the initial strategy-setting and funding decisions, as well as in proposal development.

Identify pathways to impact up front. To increase the potential for strong development impact, pathways to impact should be planned in advance by engaging key decision makers (such as political and business leaders). Room should also be left for opportunistic engagement with key influencers as situations change – an approach taken by private foundations such as the Ford Foundation. This involves ensuring a flexible element to the funding, to allow researchers to make the most of opportunities as they arise.

Box 14: A more deliberate approach by the Swiss r4d programme

The [Swiss Programme for Research on Global Issues for Development](#) ('r4d programme')⁶⁵ has a ten-year lifespan from 2012-2022. It is a joint funding initiative by the Swiss Agency for Development and Cooperation and the Swiss National Science Foundation, with a total budget of CHF 97.6 million (around £80 million). It aims to generate scientific knowledge and research-based solutions to reducing poverty and global risks. As of February 2017, it supported 46 transnational research partnership projects with more than 240 grantees in 45 countries.

How it started

In 2009-10, the Swiss Agency for Development and Cooperation commissioned an evaluation of its research portfolio, which highlighted positive features but also several shortcomings, including the need to improve the strategic rationale behind research funding.

Governance

The r4d programme is governed by a Steering Committee made up of representatives from the Swiss Agency for Development and Cooperation and the Swiss National Science Foundation. International review panels assess research applications based on peer review from both researchers and development experts, to ensure that scientific quality and development relevance are given equal balance. The panels remain in place throughout the duration of the research programmes to conduct follow-up and site visits.

⁶⁵. Swiss Programme for Research on Global Issues for Development, r4d, website, [link](#).

Thematic areas

The r4d is organised around five thematic modules (social conflicts, employment, food security, ecosystems and public health) that were also strategic priorities for the Swiss Agency for Development and Cooperation. There is in addition one 'open' module.

Working with the global South

The research projects are led by Swiss institutions, which are required to form a consortium with at least one research institution from a low-income country. Forty percent of the funding must be spent in low-income countries and 50% of the academic staff must be resident in developing countries. If applicants wish to work with a middle-income country, they must provide justification based on the relevance for a given research topic.

Capacity building

The aim of the r4d is to produce excellent development-relevant research. By encouraging partnership-oriented research, it also enhances scientific skills and knowhow in developing countries, but this is a by-product, rather than a specific objective.

Cross-Whitehall coordination of research is limited

3.45 The GCRF is one of a number of major UK ODA-funded research instruments. It has areas of common interest with the Newton Fund, around science and innovation partnerships, with the International Climate Fund on resilience and with the Ross Fund on public health issues. It also has areas of thematic overlap with DFID's research portfolio. DFID has provided advice and support where requested, particularly on questions of ODA eligibility. DFID's chief scientific advisor has also supported BEIS and the Strategic Advisory Group. However, although DFID representatives are invited to the BEIS Research and Innovation ODA Officials meetings, the extent to which the GCRF has drawn on wider lessons from DFID appears limited. We have not seen evidence that BEIS has drawn actively on DFID's deep experience with aid programming in general, and fund management specifically. There are structured relationships and regular meetings between some of the delivery partners, particularly Research Councils UK, and DFID on ODA research portfolios. The establishment of these predates the creation of the GCRF.

3.46 Coordination across UK ODA-funded research instruments has remained light and informal. The working assumption of the senior BEIS team was that something "would be set up to provide strategic coordination of spending plans, delivery and evaluation."⁶⁶ Such oversight was recommended to DFID by the House of Lords Science and Technology Committee in July 2016. The committee commented that "the distribution of funding across different government departments raises questions about cross-government coherence and strategy for international development research."⁶⁷ In practice, there has been just one 45-minute interdepartmental meeting at the ministerial level, which did not discuss oversight or coordination matters.⁶⁸ The BEIS Research and Innovation ODA Officials Group has sought input from other departments on occasion, on issues such as ODA compliance, risk management, monitoring results and communications, but there is no standing coordination structure.

3.47 We have been informed by BEIS that plans have been in development for some time to establish a new cross-Whitehall Strategic Coordination of Research board. This board would be based on the existing UK Collaborative on Development Science and have the task of building strategic coherence across all government ODA science and research funds. This would be a welcome development and the government should expedite the establishment of this group. Meanwhile, coordination on research relies for now mainly on individuals in key positions interacting in an informal way. While useful, this does not provide a strong enough process to avoid overlap or promote complementarity and to ensure emerging outputs are fed into policy development by departments.

⁶⁶. Communication from BEIS to the ICAI review team.

⁶⁷. Lords Science and Technology Select Committee hearing on government funding of international development research and development work, Lords Select Committee, July 2016, [link](#).

⁶⁸. The meeting had representation from DFID, DIT, BEIS, DEFRA, the NSA, the Foreign Office and HM Treasury.

An exception to this is in the health sector, where the Medical Research Council's oversight body, the Global Health Group, plays a stronger coordination role.⁶⁹ In addition, the UK Collaborative on Development Sciences provides a secretariat for the health funders working in this area, which meets every six months to discuss current activities and opportunities for working together.

The GCRF is yet to develop tools to measure results and value for money

- 3.48 Fifteen months into its five-year funding period, the GCRF has still not developed criteria for evaluating its own performance and value for money. This means that both BEIS and the delivery partners have a limited idea of 'what good looks like' for the GCRF, which hampers the Fund's ability to discover weaknesses in its portfolio and learn from its experience.
- 3.49 After delays, the Fund's aspirations have now been more clearly articulated in the GCRF Strategy and the funding criteria. However, they have not yet been translated into measurable indicators of success. Work on developing this is to be outsourced to a third party evaluation provider as part of a foundation stage evaluation. BEIS states that "the aim of the GCRF foundation stage is to work with all the delivery partners to gather their early thinking about how impact will be delivered and develop a consistent theory of change across the whole fund."⁷⁰ This means that there has been no plan to develop indicators at portfolio level until after most of the GCRF funding has been approved.
- 3.50 The Fund also lacks a value for money framework beyond the assessment of individual research applications. The BEIS ODA Board has delegated accountability for value for money to delivery partners and to the BEIS Research and Innovation ODA Officials Group. The delivery partners have set out their own procedures in the absence of guidance from above. The tender for the foundation stage evaluation gives the service provider the option of using the DFID '4E' framework for value for money (based on economy, efficiency, effectiveness and equity). It suggests using the Research Excellence Framework,⁷¹ but does not refer to DFID's established guidelines on value for money in research and evidence programming.⁷²

^{69.} The Global Health Group is responsible for ensuring that the Medical Research Council develops an effective strategy for addressing research needs across the spectrum of global health issues. This includes DFID's aim for research to be relevant to the health of the poorest people, [link](#).

^{70.} Internal communication from BEIS.

^{71.} The framework was introduced in 2014 and assesses the impact of research of UK higher education institutions, [link](#).

^{72.} Developed by the DFID Research and Evidence Division to use for its own research: *VFM in Research & Evidence Programming*, DFID, 2016, unpublished.

4 Conclusions & recommendations

Conclusions

- 4.1 The GCRF represents a significant increase in the UK's contribution to development-oriented research. There are many pressing global development challenges that are under-researched and poorly evidenced. We have no doubt that this is a potentially effective use of UK development aid.
- 4.2 The GCRF has made good use of existing mechanisms for identifying world-class research proposals. It has successfully adapted these to meet ODA eligibility requirements. We have found that its systems are robust at the level of individual grant applications, ensuring that the research it funds is both relevant to the Sustainable Development Goals and meets established criteria for academic excellence. In the case of the Funding Councils, however, the ODA compliance process for Quality Related GCRF funding to universities has been weak.
- 4.3 We have found weaknesses at the strategic level. For the first 15 months of its operation there was no GCRF Strategy document. After the publication of the strategy in June 2017, it remains the case that across 12 wide-ranging challenge areas it is hard to target concerted research efforts towards specific development challenges. This makes it difficult to focus the Fund's resources and maximise development impact – in line with the GCRF's stated aim to achieve transformational impact on sustainable global development. This has given rise to a real risk that the GCRF portfolio will be spread too thinly to achieve transformative results. The more recent developments under the Collective Funds represent a welcome shift towards a more strategic approach to fund allocation.
- 4.4 The early formulas used for distributing funds, without a strong thematic orientation, suggest that the focus in the first year was on sharing out the available funding across UK research institutions. Mechanisms for directing funds more purposefully towards global challenges emerged only later. While it was obliged by UK legislation to respect the Haldane Principle and allow individual research decisions to be made through peer review, it would have been appropriate for BEIS to set the overall research strategy, in dialogue with the delivery partners, providing more guidance on which development challenges to address and how to maximise development impact. It could have done more to draw on lessons from DFID and from the experiences of other cross-government and research funds on how to manage complex portfolios.
- 4.5 We nonetheless recognise that many of the individuals supporting the GCRF's advisory bodies and within the delivery partners are deeply committed to making a success of the GCRF. The Collective Funds and the idea of thematic Research Hubs are positive innovations that have the potential to direct funding in a more structured way towards identifying interdisciplinary research responses to pressing development challenges.

Recommendations

Recommendation 1: To increase its prospects of achieving transformative research impact, the GCRF should develop a more deliberate strategy that encourages a concentration of research portfolios around high-priority global development challenges, with a stronger orientation towards development impact.

- 4.6 The BEIS Research and Innovation ODA Board has left too much of the development of the GCRF's strategy to delivery partners and advisory bodies. BEIS has a legitimate and necessary role in shaping the GCRF, drawing on expertise from DFID and the GCRF delivery partners, in line with the recommendations of the Nurse Review. The GCRF's research strategy should be based on a clear understanding of:
 - Which development challenges listed in the UK Aid Strategy are in need of research.
 - Where the UK research community is best placed to contribute and where collaboration between academic disciplines is most likely to lead to transformative results.
 - The mechanisms through which UK research can best influence policy makers, firms and communities and make the greatest contribution to global development challenges.

- 4.7 The strategy would also benefit from greater clarity as to the relative importance of promoting UK research excellence, addressing global development challenges and building research capacity in developing countries.
- 4.8 With the Fund's objectives clarified, delivery partners should be encouraged to actively shape research portfolios that have the greatest potential for development impact. As well as continuing the drive towards thematic and interdisciplinary calls, this might include bringing a wider range of development and fund management expertise into their assessment processes, forging stronger ties with policy makers and development bodies, and investing in initiatives to promote the dissemination and uptake of research findings.

Recommendation 2: The GCRF should develop clearer priorities and approaches to partnering with research institutions in the global South.

- 4.9 The GCRF should clarify whether partnering with the global South is an end in itself (greater research capacity as a development outcome) or a means to an end (improving the relevance, quality and uptake of UK research through partnerships with southern institutions). It should assess whether its objectives can be achieved by partnering predominantly with more established research institutions in middle-income countries or whether it should prioritise partnerships with countries in greater need of capacity building support. If the latter, then it might consider introducing a more structured set of capacity building activities for research institutions in poorer countries, based on a greater understanding of existing needs and capacities.

Recommendation 3: BEIS should develop a results framework for assessing the overall performance, impact and value for money of the GCRF portfolio, drawing on DFID's guidelines on value for money in research and evidence programming.

- 4.10 While it is too soon to reach a conclusion about the GCRF's value for money, we would expect to see a fund of this size investing in systems for managing the portfolio so as to maximise development impact. We have found that there is more to be done to ensure value for money. In particular, not enough effort has gone into specifying the objectives of the Fund across different thematic areas and developing results indicators that would enable it to measure overall impact. While we accept that BEIS needs technical support in this area, we are not convinced that it is appropriate to leave it to a contracted evaluation firm to determine how to measure impact and value for money. The process should involve BEIS and its advisory and delivery partners, and it should be designed to encourage these partners. If done well, the process can help to drive a higher level of strategic coherence across the Fund.
- 4.11 We note that BEIS does not need to reinvent the wheel. DFID has already developed guidelines on achieving value for money in research and evidence programming and there may be other relevant experience available across the UK government and elsewhere.

Recommendation 4: With the increase in investment in development research across the UK government, the responsible departments should put in place a standing coordination body to clarify roles and responsibilities, avoid duplication and overlap, and facilitate the exchange of learning.

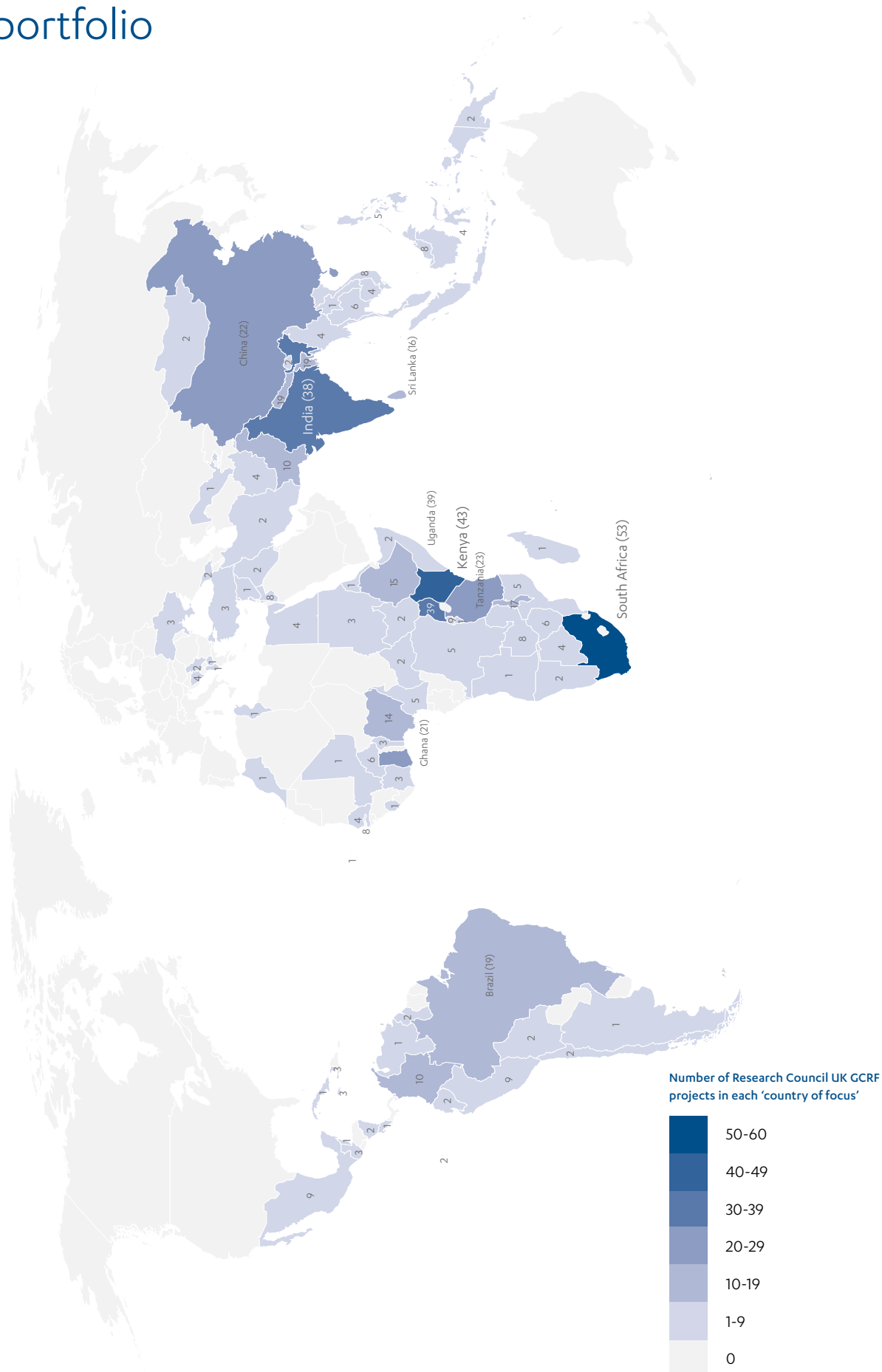
- 4.12 The GCRF represents a substantial increase in the UK's investment in ODA-funded research that includes the Ross Fund and DFID's research portfolio. The proliferation of research funds comes with a risk of duplication and overlap. It also offers opportunities to build synergies and a shared understanding of how to achieve maximum development impact through research funding. At present, coordination across these research funds remains largely informal. Plans to develop a Strategic Coordination of Research board reflect a welcome intent in this regard.

Annex 1 Summary of findings by review question

Summary of findings by review question

<p>1. Relevance: Working alongside other aid-funded research, how well does the GCRF ensure that its portfolio is relevant to UK government development priorities and the needs of southern stakeholders?</p>	<p>The GCRF could strengthen the informal working arrangements that it has with other aid-funded research, to maximise synergies and increase the overall impact of ODA-funded research.</p> <p>The GCRF Strategy has a wider scope than the UK Aid Strategy, working across 12 challenge areas. It could adopt a more strategic approach and consider how to increase its relevance to the UK Aid Strategy.</p> <p>The GCRF has been proactive in working cooperatively with southern stakeholders. However, it could do more to recognise and respond to the needs of southern stakeholders, and to create more equitable partnerships with southern research institutions.</p>
<p>2. Effectiveness: To what extent do the systems and procedures of the GCRF have the potential to ensure both impactful research and value for money?</p>	<p>The GCRF has made significant progress in a short time frame. However, risks to the prospective effectiveness of the Fund remain. To increase the likelihood of impactful research and good value for ODA money, there is a need for:</p> <ul style="list-style-type: none"> • the development of a theory of change, a results framework and portfolio level indicators • an agreement on the approach to value for money (development or research or a blend of the two?) • the establishment of monitoring, reporting, evaluation and learning mechanisms at the Fund level • a successful transition from RCUK to UKRI in April 2018. It is unclear how UKRI will include inputs and viewpoints from GCRF delivery partners that do not fall under UKRI (the Academies, the UK Space Agency and the Funding Councils in Wales, Scotland and Northern Ireland) • clarity on the funding model in the future. <p>It will be important to put these in place as soon as possible, given that 85% of the GCRF has already been approved or allocated.</p>
<p>3. Learning: Has the design of the GCRF been informed by learning from other similar funds and instruments and any broader lessons from research funding?</p>	<p>Delivery partners have been working actively to learn, largely informally. However, the GCRF could have made better use of learning from other cross-government aid funds and instruments such as the International Climate Fund and the Prosperity Fund. Working in a joined-up way with the Newton Fund within BEIS is not enough.</p> <p>BEIS could also have made more deliberate use of wider learning from DFID, and from other donors and foundations, on how to design and deliver a fund of this size and ambition.</p>

Annex 2 Geographical overview of Research Councils' GCRF portfolio



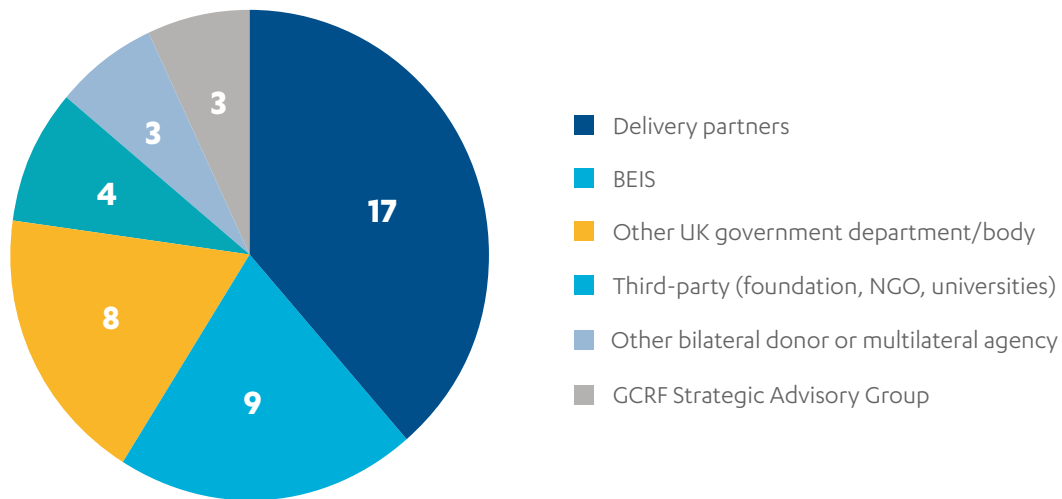
Source: GCRF Awarded Projects, Research Councils UK, data set, [link](#) (accessed September 2017).

Note: Data from other delivery partners is not currently available in this form.

Annex 3 Feedback from stakeholder consultations

A total of 46 individual stakeholders were interviewed for this review from BEIS, the Strategic Advisory Group and the delivery partners; including Research Councils, Academies, the UK Space Agency and the RCUK. We also interviewed other bilateral donors, think tanks and foundations for their insights.

Breakdown of stakeholders consulted



In addition, we carried out three surveys:

- One of the delivery partners (seven Research Councils, four Academies and the UKSA).
- One of the lead applicants for awards (this was sent to 440, of whom 128 responded).
- One of the partner applicants applying for awards (this was sent to 2,679, of whom 169 responded).



This document can be downloaded from www.icaei.independent.gov.uk/

For information about this report or general enquiries about ICAI and its work, please contact:

Independent Commission for Aid Impact

Dover House

66 Whitehall

London SW1A 2AU

020 7270 6736

enquiries@icaei.independent.gov.uk