



Department for
Business, Energy
& Industrial Strategy

Evaluation of the Global Challenges Research Fund: Stage 1b Synthesis report

Synthesis of the evidence on programme
processes and progress towards impact in
GCRF's six flagship investments

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Acronyms

AAS	African Academy of Sciences
ARMA	Association of Research Managers and Administrators
BEIS	Department for Business, Energy and Industrial Strategy
Co-I	Co-Investigator
DFID	Department for International Development
DP	Delivery Partner
ECR	Early Career Researcher
EQ	Evaluation Question
FCDO	Foreign, Commonwealth & Development Office
FCO	Foreign and Commonwealth Office
FLAIR	Future Leaders – African Independent Research
FTE	Full-Time Equivalent
GCRF	Global Challenges Research Fund
GESIP	Gender Equality, Social Inclusion and Poverty
GLAM	Global Learning for Adaptive Management
GNI	Gross National Income
GROW	Growing Research Capability
HEI	Higher Education Institution
ICAI	Independent Commission for Aid Impact
INGO	International Non-Governmental Organisation
IO	Institutional Officer
IPP	International Partnership Programme
KII	Key Informant Interview
KPI	Key Performance Indicator

LMIC	Low- and Middle-income Country
M&E	Monitoring and Evaluation
MEL	Monitoring, Evaluation and Learning
MEQ	Main Evaluation Question
NGO	Non-Governmental Organisation
ODA	Official Development Assistance
PI	Principal Investigator
PO	Partner Organisation
pp	Percentage Point(s)
R&I	Research and Innovation
SAG	Strategic Advisory Group
SDG	Sustainable Development Goal
TBE	Theory-Based Evaluation
ToC	Theory of Change
UKRI	UK Research and Innovation
UKSA	UK Space Agency
UN	United Nations
UNDP	United Nations Development Programme
UN-Habitat	United Nations Human Settlements Programme
USAID	US Agency for International Development
VfM	Value for Money

Executive Summary

This is the Global Challenges Research Fund (GCRF) Synthesis Report of the evidence on programme processes and progress towards impact in GCRF's six 'signature investments'. These are large-scale programmes and initiatives that were specifically designed to mobilise interdisciplinary, multi-sectoral research and innovation (R&I) to address development challenges and drive progress towards the Sustainable Development Goals (SDGs) in low and middle income countries (LMICs).

The six signature investments are: Growing Research Capability (GROW) programme; Interdisciplinary Hubs programme; Future Leaders – African Independent Research (FLAIR) Fellowships; the International Partnership Programme (IPP); the Challenge Leaders initiative; and the Four Nations funding stream allocated to UK higher education institutions (HEIs) through the higher education funding bodies. This Stage 1b synthesis report (2021-22) assesses the evidence on the extent to which programme processes supported excellent development challenge-led R&I, and highlights lessons for future development R&I funds.

GCRF Overview

GCRF is a £1.5 billion research and innovation (R&I) fund, launched in 2016, and overseen by the United Kingdom's (UK's) Department for Business, Energy and Industrial Strategy (BEIS).¹ GCRF is implemented by 17 of the UK's research and innovation funders, which commission R&I as partner organisations (POs).² GCRF evaluation examines the fund's achievements by tracking its Theory of Change (ToC) from activities to impacts, over a five-year period from 2020 to 2025. The evaluation is conducted in three stages.

This report covers the second stage, Stage 1b (2021–2022), which involved six process evaluations of GCRF's signature investments, and a fund-wide survey. This Synthesis Report combines evidence and analysis from those evaluations and the survey, to answer the overarching evaluation question “*How are GCRF's signature investments working, and what have they achieved?*”

¹ £1.5bn between 2016-2021 was the budgeted investment, this does not reflect the subsequent budget changes and actual spend. See BEIS, 2017, BEIS, 2017. Global Challenges Research Fund (GCRF): How the Fund Works. Available at: <https://www.gov.uk/government/publications/global-challenges-research-fund>

² GCRF is delivered through 17 partner organisations including the seven Research Councils and Innovate UK; the Research Council's umbrella organization, UK Research and Innovation (UKRI); the four National Academies; the UK Space Agency (UKSA); plus, the four higher education funding councils. These POs manage and disburse finding through the existing system of universities and other research organisations, as well as to their partners in low and middle -income countries. Higher education funding is devolved to the four nations of the UK, and administered by the governments of Scotland, Wales and Northern Ireland. In England, this funding stream is administered by Research England.

GCRF's aims

The GCRF is an ambitious and innovative fund, representing a significant investment into development-oriented R&I. GCRF was established to respond to a critical need to accelerate progress towards the United Nations Sustainable Development Goals (SDGs) by developing solutions to urgent, complex and evolving global development challenges. As such, GCRF forms part of the UK's Official Development Assistance (ODA) commitment.

GCRF aims to support challenge-led, interdisciplinary work which mobilises multi-stakeholder partnerships across the Global North and South, and across sectoral boundaries. Its goal is to promote innovative solutions to complex global development challenges and build lasting R&I capabilities and infrastructures in LMICs. The pathway to impact set out in the fund's Theory of Change (ToC) intends that widespread adoption of GCRF's research-based solutions and technological innovations contributes to achieving the SDGs. This impact is expected to be sustained through equitable R&I partnerships between UK and LMICs, and the improved capabilities for challenge-oriented R&I developed over the life of the fund (see GCRF's ToC in Annex 1).

The GCRF strategy sets out three objectives to support this impact:³

- Promote challenge-led disciplinary and interdisciplinary research, including the participation of researchers who may not previously have considered the applicability of their work to development issues.
- Strengthen capacity for research, innovation and knowledge exchange in the UK and developing countries through partnership with excellent UK research and researchers.
- Provide an agile response to emergencies where there is an urgent research need.

Through these objectives, GCRF aims to contribute to realising the ambitions of the UK aid strategy and to making practical progress on the global effort to address the United Nations' sustainable development goals (SDGs).⁴ As a secondary objective, GCRF also aims to build the position and role of the UK R&I sector as global leaders in addressing global development challenges. GCRF's ToC and the ambitions set out in its the strategy provide the overall framing for the evaluation to assess progress.



GCRF's 'signature investments' are so called because they represent the 'essence' of what GCRF was set up to achieve – transformative R&I that is interdisciplinary, multi-sectoral and challenge-focused to drive development impact. The

³ BEIS, 2017. Global Challenges Research Fund (GCRF): How the Fund Works. Available at: <https://www.gov.uk/government/publications/global-challenges-research-fund>

BEIS, 2017. UK Strategy for the Global Challenges Research Fund (GCRF). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/623825/global-challenges-research-fund-gcrf-strategy.pdf

⁴ Available at: <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

signature investments are supported through a series of collective funding streams provided by BEIS, as set out in table 1 below.

BEIS ODA R&I funding stream	Partner Organisation funding initiative	Resulting signature investment
<p>'Collective fund' offered with the aim of supporting cross-council and cross-academy initiatives to promote innovative, large-scale, interdisciplinary and challenge-focused initiatives that are intended to mobilise GCRF's signature strengths (approx. £824m budget to 2022)</p>	<p>In 2017, this collective fund was invested through two cross-GCRF funding initiatives for interdisciplinary, challenge-led R&I activities, one for UKRI and one for the national Academies.⁵</p>	<p>UKRI and the Research Councils won funding for:</p> <ul style="list-style-type: none"> - Growing Research Capability (GROW) programme (approx. £225m); - Interdisciplinary Hubs programme (approx. £200m).
		<p>Royal Society won funding for the Future Leaders – African Independent Research (FLAIR) Fellowship programme (approx. £18.3m).</p>
	<p>Additional allocation made from the collective fund to the UK Space Agency for a dedicated ODA R&I programme to explore applications of space technology to development challenges.</p>	<p>This was developed into the International Partnerships programme (IPP), (approx. £152m).</p>
	<p>In 2018, an additional cross-fund investment was made from the collective fund – the creation of the 'Challenge Leader' initiative.</p>	<p>Nine cross-fund Challenge Leader posts (approx. £3.68m)</p> <p>Role was to curate, connect and lead nine strategic thematic portfolios from existing awards for greater collective development</p>

⁵ ICAI: Rapid Review of GCRF, 2017, pp 13; The Allocation of Science and Research Funding 2016/17-2019/20, BEIS 2016

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/505308/bis-16-160-allocation-science-research-funding-2016-17-2019-20.pdf

		impact. Academics with expertise in these areas were recruited into UKRI to become Challenge Leaders.
GCRF allocations made through the devolved higher education funding councils (sometimes referred to as the Four Nations Funding Councils) to higher education institutions (HEIs) in the UK (approx £224m budget to 2022).	The four Higher Education Funding Councils (Research England, Scottish Funding Council, Higher Education Funding Council of Wales (HEFCW) and Department of the Economy Northern Ireland (DfENI) distribute GCRF funding to HEIs using an established system of block grants, based on a periodic assessment of their research excellence.	GCRF funding was disbursed in this way with the rationale of supporting R&I infrastructures and full economic costs to HEIs delivering GCRF projects. ⁶ This funding stream was also considered a signature investment.

These six strands of cross-fund investment became GCRF’s ‘signature investments’ – the diverse programmes and initiatives that are the focus of this evaluation. The collective fund and other investments reached an ultimate value of approximately £824m by 2022, approximately 55% of the total GCRF budget.⁷

Separately, BEIS also provides annual allocations to UKRI, individual Research Councils and national Academies to design and develop their own GCRF programmes.⁸ Approximately 45% of the GCRF budget (approx. £809m⁹) is managed in this way, where each PO designs and delivers GCRF-related funding calls, aligned with development challenges within their disciplinary remits, as well as occasionally jointly with other POs.

Synthesis approach and method

The overall GCRF evaluation takes a theory-based design, tracking the GCRF ToC over five of the nine years of the fund (2016-2025). The evaluation started in 2020, when GCRF was

⁶ The Allocation of Science and Research Funding 2016/17-2019/20, BEIS 2016
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/505308/bis-16-160-allocation-science-research-funding-2016-17-2019-20.pdf

⁷ These amounts are approximate and do not reflect subsequent budget changes and ODA funding reductions through 2020-22.

⁸ GCRF Evaluation, Inception Report and portfolio analysis, 2020.

⁹ ICAI: Rapid Review of GCRF, 2017, pp. 12; The Allocation of Science and Research Funding 2016/17-2019/20, BEIS 2016
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/505308/bis-16-160-allocation-science-research-funding-2016-17-2019-20.pdf

starting its fourth year of implementation, with Stage 1b completed in 2021.¹⁰ Stage 1b of the evaluation was conducted in 2021-22 (sixth year of GCRF's implementation). It answers the overall evaluation question: *"How are GCRF's signature investments working, and what have they achieved?"*

The Stage 1b programme level evaluations followed a process evaluation approach, focusing on the extent to which the management structures and implementation processes in the signature investments (both at programme and award level) have supported excellent ODA R&I with development impact. We built on the GCRF ToC to develop a detailed evaluation framework to address these questions (see the Methodology section and Annex 4 for the evaluation matrix).

The main evidence sources for the Synthesis Report were:

- Qualitative evidence, drawn from the six process evaluation reports and supporting analysis tables from Stage 1b – 339 interviews and 1,001 documents.
- Quantitative evidence, drawn from the regression analysis of the fund-wide survey of award holders and Delivery Partners, structured around specific hypotheses that were derived from the evaluation framework, 3,456 responses from 12,000 population.
- Eleven key informant interviews with BEIS and DP stakeholders to provide a fund-wide perspective on how the fund has worked and what has been achieved.

The Synthesis was implemented using framework analysis, a variant of a thematic analysis approach.¹¹ Thematic analysis is a systematic method for identifying, analysing and reporting patterns (themes) within qualitative data. We used the GCRF ToC and the criteria in the evaluation framework to provide the initial set of themes. This was complemented by triangulating the emerging qualitative insights with the quantitative analysis of the survey data, making links to the themes identified through the qualitative analysis. Drawing on the steps from meta-ethnography,¹² specific techniques were applied, including iterating between the two sets of evidence to explore, challenge and consolidate the emerging sets of themes and data patterns.

Like all evaluations, our approach has strengths and limitations. The synthesis was intended to focus only on the signature programmes, which represent about half the spend in the GCRF portfolio. This means that, given GCRF's diversity, reflections on the whole fund are limited. We have mitigated this by contextualising the findings for the signature investments against the rest of GCRF by drawing on the survey analysis, which was disaggregated by signature and non-signature programmes. This provides some basis for comparing with the characteristics of non-signature programmes. In addition, we referred to the GCRF ToC as the overarching frame that underpins all of GCRF's awards, which allowed us to draw generalisable lessons

¹⁰ GCRF Evaluation Stage 1a Synthesis 2021, <https://www.gov.uk/government/publications/global-challenges-research-fund-gcrf-stage-1a-evaluation>

¹¹ Gale, N.K., Heath, G., Cameron, E. et al. 2013 Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Med Res Methodol* 13, 117. <https://doi.org/10.1186/1471-2288-13-117>
Braun V. and Clarke V., 2006 Using thematic analysis in psychology, *Qualitative Research in Psychology*, 3:2, 77-101, DOI: 10.1191/1478088706qp063oa

¹² Noblit and Hare, 1988

from the signature investments. This helped to mitigate the challenges of diversity amongst the signature investments themselves. Four signature investments were programmes in a conventional sense, while the Challenge Leaders were a function with funding attached, and the Four Nations was a funding stream. Nevertheless, these programmes also reflect the complexity and diversity of GCRF as a whole, so referring back to the GCRF ToC allowed us to develop general insights for the six investments, despite their differences.

Synthesis Findings



Overall, the evaluation finds that GCRF's signature investments offered unique R&I opportunities in terms of their ambition, scale and promotion of interdisciplinary and intersectoral work on development challenges. These flagship programmes are widely recognised amongst stakeholders in the UK and LMICs as unique in the scale and scope of the funding they dedicated to challenge-based, interdisciplinary, development-focused R&I. The programmes made a significant contribution in enabling engagement across a wide range of LMICs and thematic areas, and in catalysing a step change in capacities and engagement with development issues in the UK R&I community, notably amongst UK institutions which have not traditionally worked in international development before, in line with GCRF's aims. This is a clear novel added value of GCRF's signature programmes and lays the groundwork for any future ODA R&I investment of this type by BEIS.



The evidence highlights that the signature programmes, over time, developed good processes which aligned with ODA challenge-led R&I, evolving from weaker start-up positions that were more administratively focused than impact-oriented. Programme-level processes became stronger at the commissioning stage, with processes remaining weaker through implementation, although in most programmes, different levels of support were observed for portfolio-level coherence, cohort building and coordination to maintain a focus on the drivers of development impact. We see a significant innovation in processes developed by award teams, especially in establishing and sustaining processes for equitable partnerships and stakeholder engagement (see page 41 onwards for more detail). Staff resources, however, for programme management at the DP level were constrained from the start of the signature investments, due to BEIS' initial parameters on operating costs, although these became more flexible as part of the evolution towards improved, impact-oriented management processes at all levels of the fund. **These processes have helped to build resilience to the challenges of what has been a turbulent period, with Covid-19 and related ODA budget reductions in 2020-21, with many strong practices to build on.**



A key strength of the signature investments has been in capacity building and the establishment of durable equitable partnerships between UK and LMIC researchers and innovators. Capacities for partnered ODA research with impact have been built in the UK as much as in LMICs, including through increased involvement of Global South stakeholders as the fund progressed in shaping calls at the PO level and proposals at the award level (see page 54). Another key strength is the quality of the partnerships and networks developed through GCRF, which have built resilience to shocks, and positioned awards for impact. Despite these strengths, capacity building is not clearly defined at any level in the fund. This means that capacity development has not been fully mobilised as a pathway towards impact.



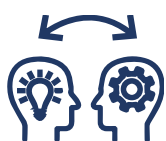
All the signature investments have faced considerable challenges from the Covid-19 pandemic and the ODA budget reductions in 2021, affecting mainly partnerships and in-country engagement activities which are the drivers of outcomes. Nevertheless, the evaluation finds emerging evidence of progress towards early outcomes in line with GCRF's ToC, with some examples of uptake and use already emerging. Both the qualitative evidence and survey results showed a wide range of R&I outputs reported from the signature investments, e.g. publication of peer-reviewed journal articles; development of new techniques, protocols and ways of working; and policy dialogues. Signature programmes emerged clearly from the survey analysis as more likely than non-signature programmes to produce a diverse range of R&I outputs, and to reach a wider range of stakeholders and research users. The survey analysis pointed to awards' products being positioned for use: 36.1% of respondents had disseminated their work through workshops or policy forums and 16.9% had produced policy briefs or statements. The most commonly reported example of translation into use was in policy work, with 16.2% of respondents reporting that their research had led to a policy shift or societal change (although specific examples weren't provided). Use by policymakers at international, national and subnational levels, and by multilateral organisations was reported more often in signature investments than in non-signature programmes.

There was also evidence across the signature programmes that global R&I partnerships were emerging. Four evaluations- GROW, Hubs, Challenge Leaders and Four Nations, highlighted examples of better, more equitable connections than in researchers' previous experiences of collaboration. There is also some early evidence of progress towards the establishment of stakeholder and research user networks, with some good examples among the signature programmes, particularly the Hubs. Survey data confirmed GCRF's contribution to developing stakeholder networks, with respondents perceiving greater impact in LMIC focus countries than in the UK. Qualitative evidence from the programme evaluations highlights the range of stakeholders engaged at international level, e.g. with multilateral organisations such as the United Nations Development Programme (UNDP) and the United Nations Human Settlements

Programme (UN-Habitat), and with national and local governments in LMICs. Engagement of civil society and community-based organisations were a particular feature of the Hubs. Collaboration with non-academic groups in LMICs and fairness in partnerships are highlighted in the evidence as key enabling factors, laying the foundations for development impact, and justifying the time and resource required to do these well.

These findings are notable, given the relatively early stage of some programmes, e.g. Hubs, and the twin challenges posed in 2020-22 by the Covid-19 pandemic and the consequent reductions in the UK's ODA budget. These have inevitably impacted GCRF awards' ability to engage with R&I users in LMICs and invest in disseminating and positioning research outputs for use to promote impact. Nevertheless, the findings suggest that the signature programmes are performing in line with the ToC assumptions: multi-partnered and collaborative R&I is more likely to promote uptake and use at earlier stages than a conventional research project.

The evidence points to a range of key structures and processes that are noted as enablers of outputs and outcomes, the precursors of development impact. These included, among others, adaptive, proactive management at the programme-level of the fund, and collaboration with academic and non-academic partners. None of the structures and processes were observed to have a negative effect, indicating that they were not burdensome but in fact enabled outputs and outcomes in awards.



Monitoring, evaluation and learning (MEL); gender, equality, social inclusion and poverty (GESIP); and VfM are key areas for improvement across the signature investments, with a need for these to be framed and prioritised at the fund level to allow them to cascade effectively through GCRF's devolved architecture, and to feed back into programme management. At fund level, processes to monitor progress, learn during implementation, and support impact are not yet strong enough, despite some clear examples of good practice. While the evaluation noted improvements in data collection and flows during programme implementation, gender, equality, social inclusion, and poverty is only more recently being prioritised from the BEIS level. Coming after programmes had been commissioned, this later emphasis on GESIP has led to these issues being inconsistently addressed at PO level. Similarly, VfM – which has also started to be addressed more fully – has not been cascaded down through the Fund due to a lack of early definition, prioritisation and guidance. The potential benefits arising from having diverse approaches in GCRF in how to address GESIP, MEL and VfM remain unrealised in the absence of fund-wide processes to identify and share general lessons, so practices have remained variable in their implementation, rather than feeding back into improved management (this positive feedback was a key assumption in GCRF's ToC).



At the UK level, the 2021 ODA budget reductions have had negative implications for the UK's reputation across countries affected – with a widely-held

perception that the UK may have become a less reliable partner for R&I activities than previously. The uncertainty created by the ODA budget reductions during 2021 has had a notable negative impact on perceptions of the UK, at least as expressed by LMIC contributors to the evaluation. The ODA reductions have particularly curtailed partnerships, both academic and non-academic, throwing into relief their importance in the delivery of the fund. With the Newton Fund also now discontinued, there are limited avenues to support international interdisciplinary collaboration on development challenges between UK and LMIC researchers and innovators in many countries.

Lessons and recommendations



Analysis and insights from the evaluation of the signature investments highlights lessons and recommendations both for the remaining term of GCRF, and for future ODA R&I funds aiming for transformative impact. The full lessons and recommendations are set out and discussed from page 80.

Summary recommendations for GCRF's remaining term

1. Maintain a focus on impact for the remaining term to ensure that GCRF's results create the foundations for future development progress. Risks arising from the fund being wound down in 2025 include diminishing resources or motivation for existing investments to deliver on their intended impacts. Within the remaining time and resources available, award holders and Partner Organisations alike should strive to maintain motivation and focus on achieving the results that are possible, as these will serve as the basis on which future ODA funds can build.

2. Sustain and strengthen existing partnerships and networks to mitigate the negative impacts of the ODA budget reductions and maintain the UK's reputation as a partner for international R&I collaboration into the future. Given that GCRF's outcomes form the basis for future ODA funds, efforts should be made to sustain and strengthen the relationships, partnerships and networks developed through the implementation of GCRF. Where this is possible, it may help to mitigate the risk that any future investment faces from reputational damage arising from ODA budget reductions. (Specific approaches for implementing these recommendations are suggested in the detailed recommendations on page 80.)

Summary lessons and recommendations for future ODA funds

Lesson 1: Delivering impactful, excellent ODA R&I requires a clear strategic vision set at the fund level, supported by flexible processes to ensure a focus on ODA R&I excellence in programmes and awards throughout their life cycle. Impact drivers such as gender and inclusion, fairness in partnerships, and stakeholder networks

should be prioritised in fund-level policies and standards and cascaded to POs and awards as flexible frameworks to guide programme and award strategies. The time needed to implement these well should be factored in, and consistent standard of implementation should be driven by a fund-wide learning and improvement process.

Recommendation 1 (BEIS and POs): Work together to develop ODA R&I excellence standards for POs, focusing on the impact drivers, to provide a fund-level framework to guide POs and award holders.

Lesson 2: The evaluation evidence from the signature investments highlights how, in a large-scale ODA R&I fund like GCRF, a system of cascading structures and processes is needed to ensure the prioritisation of the development impact drivers, whilst providing flexibility to allow innovation and diversity in how these are met within programmes and awards. A learning and feedback process is also necessary to ensure that learning from diversity is shared back around to all levels, and effective processes are taken up consistently.

Recommendation 2 (BEIS and POs): Coordinate the development of a cascading system of flexible policies and structures for different levels of the fund to meet ODI R&I excellence standards, and enable adaptive programme management to drive a consistent focus on ODA R&I excellence.

Lesson 3: Prioritise, frame and track mutual capacity development of LMIC and UK individuals and institutions – academic, policy and practice – , with an emphasis on fair and equitable partnerships, as an important pathway to impact. Lasting new capacities in LMICs and the UK for challenge-focused, interdisciplinary R&I in terms of skills, partnerships and research infrastructures are important outcomes for funds like GCRF, and likely to lay the foundations for development impact. As such, capacity building is a key pathway to impact and should be defined and tracked accordingly.

Recommendation (for BEIS and POs): Define and track capacity development for individuals, organisations and institutions at the fund level, building on learning from previous ODA funds, including the importance of fair and equitable partnerships for capacity development.

Lesson 4: Define and frame VfM and MEL at the fund level, as core processes for adaptive management in funds with devolved architectures, to allow a coordinated approach to improvement for greater effectiveness across the fund. This would

allow a more consistent tracking of impacts to address how research might be mobilised and innovations delivered for development impact.

Recommendation 4 (BEIS and POs): Define and frame VfM and MEL at the fund level, with a clear set of core dimensions to be tracked and reported on and with processes to promote coordination and learning on VfM across the different levels of the fund.

Lesson 5: Allow sufficient time in programmes and awards to set up processes to maximise effectiveness, fairness and VfM. Funding profiles should be tailored to reflect different phases of an ODA R&I project, avoiding flat spend trajectories that can lead to underspends in the set-up phases.

Recommendation 5 (for BEIS and POs): Build in time at the start and the end of the fund, programmes and awards to maximise effectiveness, fairness and VfM and to allow POs time to develop processes and plans to implement fund-level strategies.

1. Introduction

This is the Global Challenges Research Fund (GCRF) synthesis report on programme processes and progress towards impact in GCRF's six signature investments that make up approximately 55% of the expenditure in GCRF's £1.5 bn portfolio.¹³ These are large-scale programmes and initiatives that were specifically designed to mobilise interdisciplinary, multi-sectoral research and innovation (R&I) to address specific development challenges and drive impact in low and middle income countries.¹⁴

The six signature investments are: Growing Research Capability (GROW) programme; Interdisciplinary Hubs programme; Future Leaders – African Independent Research (FLAIR) Fellowships; the International Partnership Programme (IPP); the Challenge Leaders initiative; and the Four Nations funding stream allocated to UK HEIs through the higher education funding bodies

The Stage 1b evaluation looks at the structures and processes that have been used to manage the six programmes, and assesses the extent to which these have been effective at supporting challenge-led, development research and innovation (R&I). The report also assesses what has been achieved so far and progress towards impact.

Structure of the report

This synthesis report is structured as follows:

- Section 1 presents an introduction to GCRF, the evaluation and the strategic policy context in 2022
- Section 2 presents an overview of the six 'signature investments'
- Section 3 sets out the methodology for the synthesis
- Section 4 sets out the findings of the synthesis, broken down into three subsections: processes and structures in the signature investments; the programmes' early results and outcomes; and key enabling and constraining factors in the signature programmes
- Section 5 sets out the main conclusions, and draws lessons and recommendations for the remaining term of GCRF, and for future official development assistance (ODA) R&I funds.

¹³ The other half of GCRF's portfolio is made up of programmes and awards funded through direct allocations to UK Partner Organisations, aligned within their disciplinary remits. The evaluation is also focusing on these types of awards in other modules.

¹⁴ GCRF's signature programmes were collectively funded and centrally managed to maximise cross-DP working within UKRI and across the academies. The signature investments differed by design from the GCRF funds that were allocated to individual Delivery Partners (POs) to design and manage GCRF programmes within their own disciplinary remits. Interdisciplinarity also features in other GCRF programmes but were not the distinguishing characteristic of these (GCRF Evaluation Stage 1a Synthesis 2021; ICAI 2017). See page 19 in this report for more information.

Rationale and objectives of GCRF

GCRF is a £1.5 billion fund announced by the UK Government in late 2015 to support pioneering research that addresses the challenges faced by developing countries.

GCRF forms part of the UK's ODA commitment and is managed by the Department for Business, Energy and Industrial Strategy (BEIS).

GCRF was established to respond to the critical need to make progress towards the United Nations (UN) Sustainable Development Goals (SDGs) by addressing urgent and evolving global development challenges. The fund was based on the assumption that new kinds of R&I are needed to tackle challenges of this scale. The response it developed was to support interdisciplinary work which mobilises multistakeholder partnerships across sectoral boundaries, and across the Global North and South, with the aim of building lasting R&I capabilities and infrastructures in low- and middle-income countries (LMICs).

The pathway to impact set out in the fund's Theory of Change (ToC) intends that widespread adoption of GCRF's research-based solutions and technological innovations should contribute to achieving the SDGs. This impact is expected to be sustained through the equitable R&I partnerships between UK and LMICs and through the improved capabilities for challenge-oriented R&I developed over the life of the fund.

The GCRF strategy sets out three objectives to support this impact:¹⁵

- Promote challenge-led disciplinary and interdisciplinary research, including the participation of researchers who may not previously have considered the applicability of their work to development issues
- Strengthen capacity for research, innovation and knowledge exchange in the UK and developing countries through partnership with excellent UK research and researchers
- Provide an agile response to emergencies where there is an urgent research need.

As a secondary objective, GCRF also aims to build the position and role of the UK R&I sector as global leaders in addressing global development challenges.

GCRF's evaluation

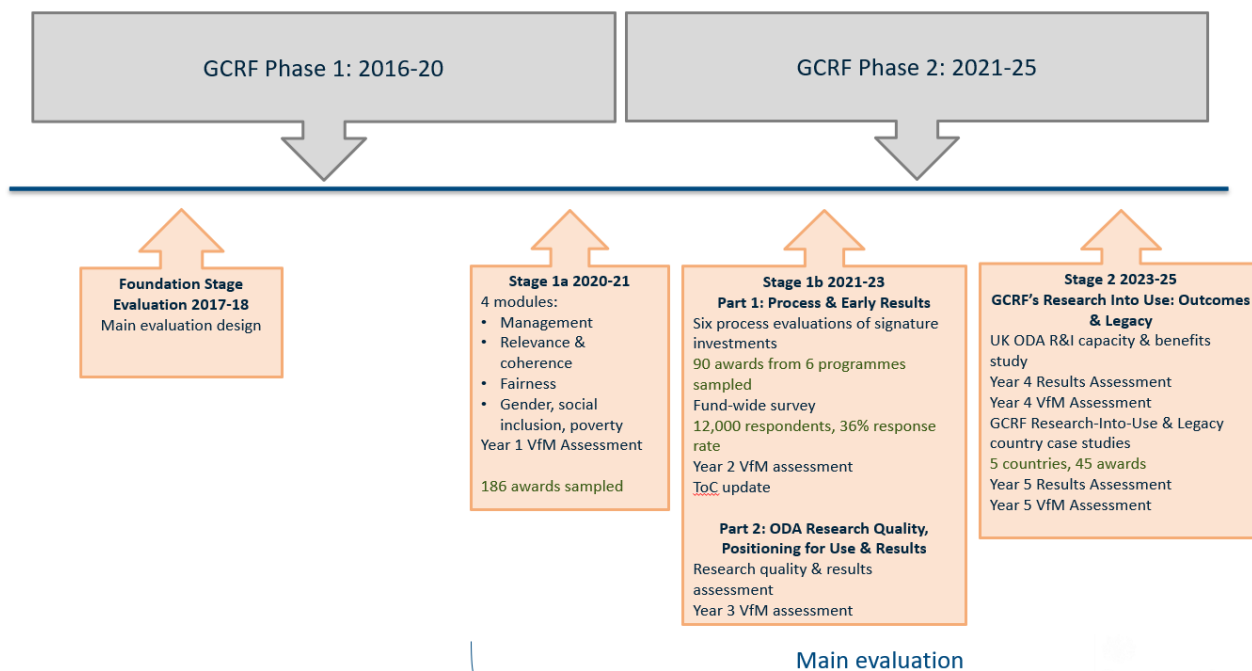
The evaluation of GCRF assesses the extent to which the fund has contributed to its objectives and impact. This has a dual learning and accountability purpose, as set out clearly in the evaluation objectives:

¹⁵ BEIS, 2017. 'Global Challenges Research Fund (GCRF): How the Fund Works'. Available at: <https://www.gov.uk/government/publications/global-challenges-research-fund/global-challenges-research-fund-gcrf-how-the-fund-works#:~:text=GCRF%20forms%20part%20of%20the,the%20poorest%20people%20and%20countries>
BEIS, 2017. UK Strategy for the Global Challenges Research Fund (GCRF). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/623825/global-challenges-research-fund-gcrf-strategy.pdf

- To assess whether the fund is achieving its aims (*accountability and learning*)
- To assess whether it is on course to achieve impact (*accountability*)
- To support BEIS in their development of a cross-fund and fund-specific key performance indicator (KPI) framework to provide a robust measure of the fund’s impact and value for money (VfM) (*learning and accountability*)
- To provide evidence of what works and make interim assessments of VfM to feed into GCRF learning loops to improve the fund while it is in operation (*learning and accountability*)
- To inform the design of a VfM case for future funds (*learning*).

This provides evidence of GCRF’s contribution towards impact, and engages with BEIS’s developing processes for learning about aid effectiveness. Given the complexity of the fund, the evaluation is designed in three stages, conducted over five years from 2020 to 2025. GCRF’s budget allocation falls into two phases – the original allocation of five years made from 2016-2020, and a second allocation made from 2021-25 (see Figure 1 below).

Figure 1: Overview of GCRF evaluation



The overall GCRF evaluation takes a theory-based design, tracking the GCRF ToC over the life of the fund (see Annex 1). This stage seeks to answer the main evaluation question (MEQ):

MEQ 2. How are GCRF’s signature investments working, and what have they achieved?

The next section now discusses GCRF’s signature investments – its six flagship programmes.

2. Overview of signature investments

GCRF's signature investments were named as such because they represent the 'essence' of what GCRF was set up to achieve – challenge-focused, interdisciplinary programmes delivering ODA R&I excellence with development impact.

GCRF's investment strategy and the 'signature investments'

Since 2016, BEIS has provided GCRF funding through three channels. First, it provides annual allocations to UKRI, individual Research Councils, national Academies to design and develop their own GCRF programmes.¹⁶ Approximately 45% of the GCRF budget (approx. £809m¹⁷) is managed in this way, where each partner organisation designs and delivers GCRF-related funding calls, aligned with development challenges within their disciplinary remits, as well as occasionally jointly with other councils.

Second, BEIS provides GCRF funding through a collective fund, with the aim of supporting cross-council and cross-academy initiatives to promote large-scale, interdisciplinary and challenge-focused initiatives that are intended to mobilise GCRF's signature strengths. This funding stream supported the six signature investments that are the focus of this evaluation, which we describe below.

In 2017, this collective fund was invested through two cross-GCRF funding initiatives for interdisciplinary, challenge-led R&I activities, one for UKRI and one for the national Academies.¹⁸ The Partner Organisations bid for funding for innovative collaborative programmes. An additional allocation was made from the collective fund to the UK Space Agency for a dedicated ODA R&I programme to explore applications of space technology to development challenges. These signature investments differed from the direct GCRF allocations by being large-scale, interdisciplinary, multi-sectoral and challenge-focussed rather than mainly led by research funders' domain and discipline.

The third channel is the GCRF allocations made through the devolved higher education funding councils (sometimes referred to as the Four Nations Funding Councils) to higher education institutions (HEIs) in the UK. The four Funding Councils distribute GCRF funding to HEIs using an established system of grants (known as 'Quality Related' research funding), based on a periodic assessment of their research excellence. GCRF funding was disbursed in

¹⁶ GCRF Evaluation, Inception Report and portfolio analysis, 2020.

¹⁷ ICAI: Rapid Review of GCRF, 2017, pp. 12; The Allocation of Science and Research Funding 2016/17-2019/20, BEIS 2016

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/505308/bis-16-160-allocation-science-research-funding-2016-17-2019-20.pdf

¹⁸ ICAI: Rapid Review of GCRF, 2017, pp 13; The Allocation of Science and Research Funding 2016/17-2019/20, BEIS 2016

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/505308/bis-16-160-allocation-science-research-funding-2016-17-2019-20.pdf

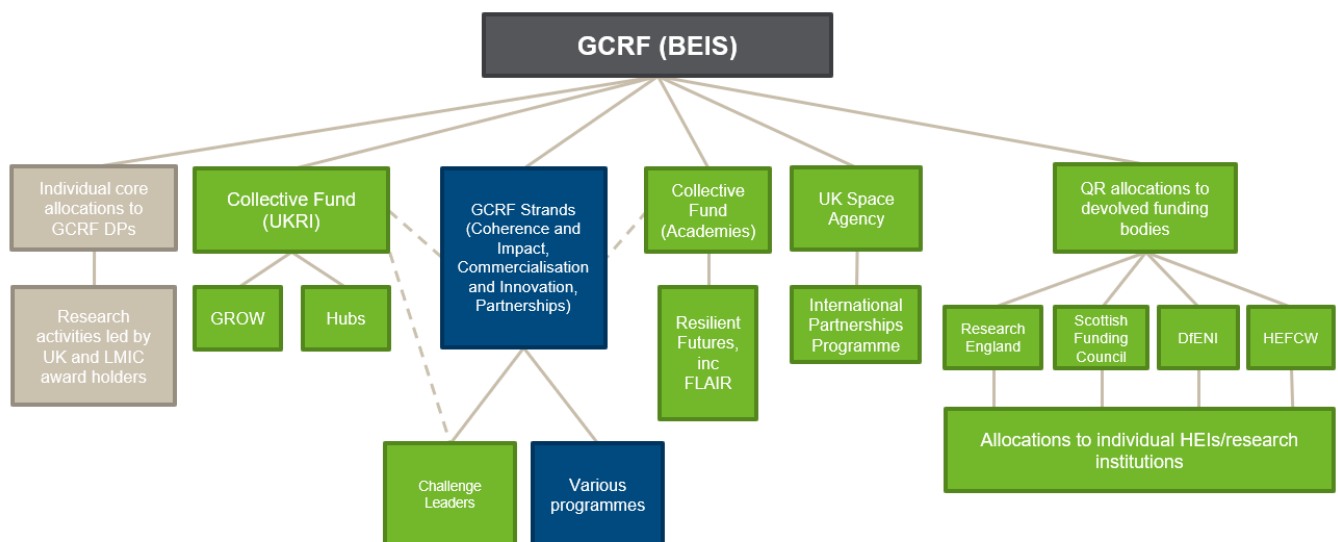
this way with the rationale of supporting R&I infrastructures and full economic costs to HEIs delivering GCRF projects.¹⁹

Finally, in 2018, an additional cross-fund investment was made from the collective fund - the creation of the ‘Challenge Leader’ initiative. This established nine cross-fund Challenge Leader posts whose role was to curate, connect and lead nine strategic thematic portfolios from existing awards for greater collective development impact. Academics with expertise in these areas were recruited into UKRI to become Challenge Leaders.

These six strands of cross-fund investment became GCRF’s ‘signature investments’ – the diverse programmes and initiatives that are the focus of this evaluation. This collective fund reached an ultimate value of approximately £824m by 2022, approximately 55% of the total GCRF budget.

Figure 1 illustrates the GCRF investment strategy and the collective funds supporting GCRF’s ‘signature investments’, shown in green.

Figure 1: GCRF Investment Strategy²⁰



¹⁹ The Allocation of Science and Research Funding 2016/17-2019/20, BEIS 2016 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/505308/bis-16-160-allocation-science-research-funding-2016-17-2019-20.pdf

²⁰ From interviews with the GCRF Fund Management team, 2020, GCRF Evaluation, Stage 1a, 2021.

Characteristics of the signature programmes

These signature programmes represent approximately 55% in the GCRF portfolio, and so are a significant component to evaluate. The signature investments that were assessed in Stage 1b were:

- Interdisciplinary Hubs programme, UK Research and Innovation (UKRI)
- GROW Programme, UKRI
- FLAIR programme, Royal Society and African Academy of Sciences (AAS)
- IPP, UK Space Agency (UKSA)
- Challenge Leaders – strategic portfolio leaders appointed within UKRI
- Four Nations Devolved Funding Councils, block grants to UK institutions.

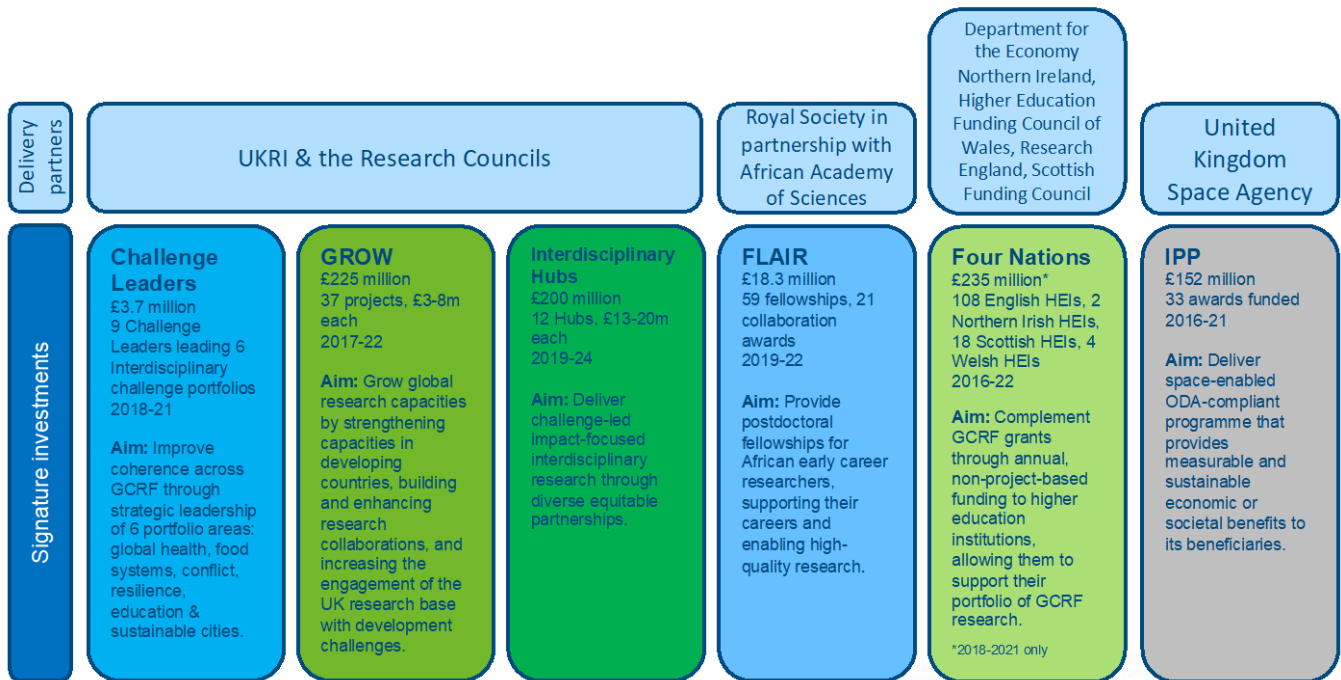
Figure 2 sets out the six programmes and describes how they differ in their aims and implementation models, though they broadly share the characteristics of GCRF programmes set out in Box 1. Three of the signature programmes – GROW, Hubs and IPP, follow a broadly similar programme structure, with an over-arching call for large-scale projects delivered by international consortia focusing on a development challenge in a number of LMICs. All three programmes include elements of individual and institutional capacity development alongside impact-focused R&I, although for GROW, capacity development was the central focus. These programmes have a range of policies and requirements for award holders, including a prioritisation of equitable partnerships; development of R&I strategies including theories of change and pathways to impact; stakeholder engagement strategies; and monitoring and evaluation processes.

FLAIR is a fellowship programme aimed at supporting African early career researchers to develop impact-focused research, with additional grants for institutional collaboration with UK institutions. Focused on individuals, FLAIR had light-touch requirements for award-level monitoring and reporting.

The Four Nations is not a programme in the conventional sense, as it provides non-project institutional funding directly to HEIs to complement GCRF award funding. Although funding is provided as a block grant, after 2017, each HEI was required to develop a three-year strategy for its GCRF block grant, including elements of partnership building, international proposal development grants and capacity building. The annual reporting meant that there was more granular monitoring and reporting of these institutional grants than would normally be expected from block grants.

The Challenge Leaders initiative is distinct from the others as it is in effect an internal coherence function, aiming to enhance strategic coordination within the GCRF portfolio. Challenge Leaders curated and connected six thematic portfolios and deployed small commissioning budgets for activities to promote coherence and stakeholder engagement for their portfolios. There was, however, minimal documenting and reporting in the Challenge Leaders' initiative.

Figure 2: Overview of the ‘Signature Investments’ – GCRF’s flagship programmes



Note: The amounts shown are approximate budget allocations, they do not reflect any subsequent budget reductions or actual spend to date.

Source: BEIS Fund Management; Partner Organisations

Box 1: What is a ‘programme’ in GCRF?

GCRF programmes are designed and managed by GCRF’s Partner Organisations (POs). Funding is allocated for the commissioning of a specific portfolio of grants, guided by a set of specific objectives which contribute to GCRF’s goals.

Programmes typically require partnership with LMIC institutions, interdisciplinary work and stakeholder engagement as key components of each grant. Some programmes may be open to a range of topics, while others focus on specific research topics or countries. Innovation programmes (such as IPP which focus on the application of knowledge to develop technologies, processes and/or services) are the exception to this, with awards commissioned to respond to specific geographies or development challenges.

As GCRF’s largest investments, signature programmes involve more hands-on management of the portfolio by the DP than other programmes, in order to optimise potential development impact. This includes more rigorous policy and framework requirements (discussed in more detail in the section below).

Strategic and policy context in 2021–22

As evidence for this stage of the evaluation was collected in 2021-22, it is important to outline the context. The first years of GCRF's evaluation, 2020–22, have seen significant changes in the strategic, policy and economic context of GCRF that have affected the whole fund, particularly the flagship programmes as these were large-scale investments. Changes include: a new policy framework that integrates ODA into defence and foreign policy; a new UK Government Strategy for International Development; and significant budget reductions for 2021–22 as part of the Covid-19 pandemic response. In late 2021, the policy decision was made to wind down GCRF by 2025, with a continuation of commitments for existing awards and programmes but no new commissioning.

A new UK Government Strategy for International Development was launched in May 2022,²¹ developed in the wake of the Integrated Review of Security, Defence, Development and Foreign Policy, published in March 2021.²² The 2022 Strategy fits within the broader vision outlined in the Integrated Review. International development priorities form one part of wider UK foreign policy, with a clear focus on defence and security and on the UK's place within shifting geopolitics. Both these policy documents guide the work of the new Foreign, Commonwealth & Development Office (FCDO) – formed in August 2020 by merging the Foreign and Commonwealth Office (FCO) and the Department for International Development (DFID) – and that of all ODA-spending departments, including BEIS, which funds GCRF.

Thematic priorities identified in the 2022 Strategy include: investment for sustainable, green economic growth; education, empowerment and protection from violence for women and girls; humanitarian assistance; and global health, climate and nature – all topics which have been key aspects of GCRF's R&I. While there is a shift towards country and bilateral programmes, the 2022 Strategy retains a focus on using world-class R&I to provide evidence-based development responses, meaning that GCRF remains relevant to the new policy context.

The Covid-19 pandemic significantly impacted on ODA spending and management, with subsequent cuts to the GCRF budget in 2021–22. In 2021, in response to the economic recession and as part of resultant fiscal policies, the ODA commitment was temporarily reduced from 0.7% to 0.5 % of gross national income (GNI).²³ This reduction in spending led to cuts to ODA-spending government departments – including BEIS.²⁴ These sudden budget

²¹ FCDO, 2021. The UK Government's Strategy for International Development. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1075328/uk-governments-strategy-international-development.pdf

²² HM Government, 2021. Global Britain in a competitive age. The Integrated Review of Security, Defence, Development and Foreign Policy. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/975077/Global_Britain_in_a_Competitive_Age_the_Integrated_Review_of_Security_Defence_Development_and_Foreign_Policy.pdf

²³ Dickson, A., 2020. 'Spending Review: Reducing the 0.7% aid commitment'. Available at: <https://commonslibrary.parliament.uk/spending-review-reducing-the-aid-commitment/>

²⁴ HM Government, 2021. Global Britain in a competitive age. The Integrated Review of Security, Defence, Development and Foreign Policy. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/975077/Global_Britain_in_a_Competitive_Age_the_Integrated_Review_of_Security_Defence_Development_and_Foreign_Policy.pdf

reductions, which amounted to around 70% of committed spend in 2021-22, affected GCRF's POs and investments across the board, with grants being delayed, reprofiled or terminated.²⁵

Following the three-year Spending Review in September 2021, the decision was made to wind down both of BEIS's ODA funds, GCRF and Newton, by 2025. Following this budget, BEIS's ODA allocation stabilised and GCRF's funding position confirmed. Existing GCRF commitments will now be met, with commissioned projects, including the large-scale flagship programmes, supported until March 2025. The cuts from 2020/21 to GCRF's overall budget however, will not be reimbursed. This, alongside the cuts to 2020-21 underspends in programmes means that projects have reduced scope to accommodate net budget reductions.

With no new commissioning taking place, GCRF spending is now on a declining trajectory (see Figure 3 below). This represents a reduction in the original ambition outlined in GCRF's ToC to maintain investment over 10 years. Many of the activities planned for the 2021–25 impact-focused phase have therefore been curtailed, with implications for GCRF's midterm outcomes and impact.

Figure 3: GCRF budget allocation 2022–25²⁶



Effectively, there are only two years of R&I activity remaining, as in the final year programmes will be focused on finalising outputs. Award teams – and, potentially, partnerships – will disband and move on. BEIS has decided that it is important that the evaluation will continue to track GCRF up to its close in March 2025. The design of the evaluation and GCRF's ToC has, however, been reshaped to accommodate the changes in the funding trajectory, challenges of Covid in Stage 1b and to capture lessons and document GCRF's accomplishments and legacy. This is a particular priority for BEIS in 2022 as they design the successor fund to GCRF and Newton, which will focus on science and technology and which will have a blend of ODA and non-ODA funding.

²⁵ UKRI, 2021. 'UKRI Official Development Assistance letter 11 March 2021'. Available at: <https://www.ukri.org/our-work/ukri-oda-letter-11-march-2021/>

²⁶ Internal BEIS communication.

3. Methodology

The overall GCRF evaluation takes a theory-based design, tracking the GCRF ToC over the projected 10 years of the fund. For Stage 1b, we developed an evaluation framework to assess how well ‘ODA excellence’ has been supported in the signature investments, drawing on the findings from Stage 1a, GCRF’s ToC and the literature on challenge funds. This section provides an overview of our approach and the evaluation questions (EQs) and criteria that the process evaluation aims to answer. It also summarises our data collection method, sampling, data analysis and our key strengths and limitations.

Summary:

The evaluation as a whole is a theory-based evaluation (TBE) design, using the GCRF ToC as the framework. To meet the different evaluation purposes, the evaluation is implemented in three stages that track sequentially along the ToC at each stage over five years, using a modular approach at each stage.

Each stage addresses a separate Main Evaluation Question (MEQ), examining GCRF from activities to outcomes along the ToC. At each stage, individual modules ‘zoom in’ on specific aspects of the GCRF ToC, complemented by cross-module reflection that ‘zooms out’ in order to look holistically at the modules and ToC and answer the MEQ.

Stage 1b addresses *MEQ 1b: How are GCRF’s signature investments working, and what have they achieved?* It involved six process evaluations of GCRF’s flagship programmes, which took a mixed methods approach to assess programmes and awards, combining quantitative survey data from award holders and POs, desk reviews of programme and awards documentation, and qualitative key informant interviews (KIIs).

The Stage 1b synthesis analysis combines the six process evaluations and the survey analysis to assess the signature programmes with reference to the GCRF ToC and to progress towards impact.

Overview of approach

Evaluation design

To meet its purpose and objectives, the evaluation of GCRF takes an overarching TBE design that is built around GCRF’s ToC, developed in the Foundation Stage evaluation.²⁷ The revised and updated GCRF ToC diagram is in Annex 1. During the Foundation Stage evaluation, an

²⁷ BEIS, 2019. GCRF Foundation Stage Evaluation Report, 2018. Available at: <https://www.gov.uk/government/publications/global-challenges-research-fund-gcrf-foundation-stage-evaluation>

analysis of GCRF determined that the scale and complexity of the fund, and the different evaluation purposes, necessitated a multimethod and multi-module design.²⁸

The Foundation Stage evaluation therefore proposed a staged, hybrid approach to the design. The evaluation is implemented in three stages that sequentially assess different aspects of the GCRF ToC through a range of evaluation modules, implemented over five years from 2020 to 2025.

The six Stage 1b process evaluations which form the basis of this synthesis report aimed to answer MEQ 2:

How are GCRF's signature investments working, and what have they achieved?

They investigated structures and processes involved in commissioning, managing and implementing awards within the six programmes, the extent to which these have promoted excellence in ODA R&I, and their early results. In addition to this award-level assessment, the process evaluations examined programme-level processes and their impact at the award level. Data collection took place from January 2022 to April 2022, with analysis taking place from April 2022 to June 2022.

Building on Stage 1a findings: framing of 'ODA research excellence' in GCRF

Stage 1b builds on the findings of the earlier stages of the evaluation. In its ToC and strategy, GCRF aims to go beyond considering research excellence alone to promoting challenge-led, excellent research with impact. This incorporates a wider understanding of what GCRF as an ODA fund should strive towards, which the evaluation has termed 'ODA research and innovation excellence'.

However, in Stage 1a, the evaluation found that some investments in the portfolio are more aligned with ODA challenge-led R&I than others. The evaluation concluded that approaching GCRF more explicitly as an ODA R&I challenge fund would provide more insights into 'what good looks like' for GCRF's performance. This echoed a consistent request from BEIS, which has been for the evaluation to provide comparators for good performance in GCRF, given that GCRF does not have defined fund performance indicators and metrics for management processes.

Therefore, for Stage 1b, to identify criteria for 'what good looks like', we conducted a rapid scan of the literature for challenge funds in international development and mission-oriented R&I.²⁹ From this review, we distilled a number of structures and processes that are required to support excellence in managing R&I with development impact, as set out in Table 1. These were then captured as assessment criteria for the Stage 1b process evaluation matrix (see below).

²⁸ Ibid., p.24.

²⁹ Itad, 2021. GCRF Evaluation Stage 1b Scoping Report; see also Murray, B., Izzi, V., Roberts, E., et al., 2021. ESRC – FCDO Joint Fund for Poverty Alleviation Research Programme – Phase 3 Evaluation Final Report. Available at: <https://www.ukri.org/wp-content/uploads/2022/08/ESRC-080822-JointFundPovertyAlleviationResearchProgrammePhaseThreeEvaluation-FinalReport.pdf>

Table 1: ODA R&I structures and processes to promote development impact

ODA R&I management (at programme and award level)	ODA R&I excellence in design and implementation
<p>Scoping and framing of challenge for relevance and coherence</p> <p>ToC and shared vision (ideally jointly developed, as a minimum agreed on)</p> <p>Commissioning and selection of portfolio to deliver against challenge</p> <p>Capacity needs assessed and identified</p> <p>Risk factors identified and mitigated</p>	<p>Relevance and coherence in design and delivery</p> <p>Strategic/holistic/system lens, including interdisciplinarity</p> <p>Negative consequences mitigated and a 'do no harm' approach adopted</p> <p>Gender responsiveness and poverty addressed in design and processes</p> <p>Inclusiveness addressed within design and research processes</p> <p>Capacity needs identified and assessed</p> <p>Fairness in engagement with local research ecosystems/stakeholder engagement</p> <p>Stakeholder engagement and positioning for use in design and delivery ('fit for purpose' engagement and dissemination strategies; relationship building; best platforms for outputs for the target audience and users)</p>

Building on this review, the GCRF ToC (interventions, assumptions and early outcome areas) and the findings from Stage 1a (see Box 2 below), a single overarching evaluation framework was developed for all six process evaluations and the fund-wide survey (see Annex 4 for the full evaluation matrix).

Given the diversity of the signature programmes, rather than being applied as a blue-print, the evaluation matrix provided a range of criteria for ODA R&I structures and processes. These were then tailored for the different signature investments, to reflect their aims and implementation model and provide a fair framework for the assessment of each programme.

Box 2: Findings from Stage 1a, 2020–21

The process evaluations build on the findings from Stage 1a. The Stage 1a Management Review and Synthesis Report on the integration of relevance, fairness, gender, poverty and social inclusion in GCRF was published in February 2022.³⁰ Overall, the Stage 1a

³⁰ BEIS, 2022. Global Challenges Research Fund (GCRF): Stage 1a evaluation. Available at: <https://www.gov.uk/government/publications/global-challenges-research-fund-gcrf-stage-1a-evaluation>

evaluation found that GCRF is making clear progress in terms of establishing the foundations for development impact – becoming relevant, coherent, well targeted, fair, gender sensitive and socially inclusive. Strengths were seen especially in the ‘signature investments’ such as the IPP programme, GROW, Interdisciplinary Hubs and FLAIR. However, inherent challenges in the fund’s size and complicated delivery architecture meant that progress has been varied across the portfolio, and important gaps remain, especially around managing for development impact and how poverty is addressed. The evaluation recommended that GCRF do the following:

Establish a more consistent challenge fund identity, with the cultures, shared ownership and management structures to support this. A challenge fund identity and associated processes were seen most strongly in the signature investments, with the need to explore this in more depth in Stage 1b process evaluations through specific criteria.

Establish quality standards for ‘ODA R&I excellence’ to optimise the combination of excellent R&I with development impact. The synthesis identified an unresolved tension that at times privileged conventional research excellence and took a lower, compliance approach to the fundamentals of development impact. The need to integrate and promote both dimensions of excellence in ODA R&I was brought into the Stage 1b process evaluation framework to understand in more depth if this had been achieved in the signature investments.

Establish a collective, fund-wide monitoring and learning process that supports learning between BEIS, the POs and award holders to support adaptive management at different levels. This is a fund-wide challenge but was also brought into the process evaluation framework to investigate the extent to which monitoring and learning were supported in the signature programmes.

Evaluation users

Our evaluation design is grounded in a utilisation focus. This requires having clarity on who the different stakeholders of the evaluation are at the start of the evaluation, as well as how and when they want to use the findings. The evaluation is designed in such a way that it engages stakeholders at the most appropriate moments in the process.

The primary users of the evaluation are BEIS, including the BEIS ODA R&I Policy and Research Management Team and the ODA R&I Data Monitoring, Evaluation and Learning Team (DMEL), and the Partner Organisations.

The main uses of the evaluation will be to inform the management of the remaining term for GCRF and to inform the design of successor ODA funds, whether at BEIS or other departments.

Stage 1b Synthesis process

The aim of the Stage 1b synthesis process is to produce a synthesis report to answer the overarching evaluation question (EQ) for this stage, on processes and progress towards impact. The synthesis identifies lessons and recommendations on supporting ODA excellence in R&I in order to:

- inform the design of future funds
- provide evidence of achievements, strengths and weaknesses
- provide accountability for the investments made.

Synthesis methodology

In summary, the Stage 1b synthesis was implemented using framework analysis, a variant of a thematic analysis approach.³¹ Thematic analysis is a systematic method for identifying, analysing and reporting patterns (themes) within qualitative data.

This was complemented by triangulating the emerging qualitative insights with the quantitative analysis of the survey data, making links to the themes identified through the qualitative analysis. Drawing on the systematic steps from meta-ethnography,³² specific techniques were applied to iterate between the two sets of evidence to explore, challenge and consolidate the emerging sets of themes and data patterns. These included identifying the relevant themes from the source material, exploring the relationships between them, translating the themes back into all the sources, testing the themes against the evidence, juxtaposing findings and reconciling contradictions in the findings and evidence (the approach is set out in more detail below).

Evaluation framework

The evaluation matrix provides the main analytical framework. It comprises seven questions which assess processes to results. EQ 1 assesses the performance of core processes that need to be in place for R&I to contribute to tangible development outcomes, EQs 2–3 assess capacity development, fairness and VfM. EQs 4–7 analyse emerging results, the factors that have enabled and constrained programmes and awards in overcoming challenges and the uniqueness of GCRF funding (see summary evaluation matrix in Table 2 and the full matrix with sub-criteria in Annex 4).³³

Three main sources were used to develop the evaluation framework:

³¹ Gale, N.K., Heath, G., Cameron, E. et al., 2013. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Medical Research Methodology* 13:117. Available at: <https://doi.org/10.1186/1471-2288-13-117> and Braun V. and Clarke V., 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology* 3:2, 77–101. Available at: [10.1191/1478088706qp063oa](https://doi.org/10.1191/1478088706qp063oa)

³² Noblit and Hare, 1988.

³³ Based on research outlined in GCRF Evaluation: Stage 1b Approach Paper, 2021. Internal design document.

- GCRF ToC and core objectives
- Stage 1b evaluation criteria, derived from the ToC and the literature review
- Stage 1a conclusions and recommendations.

The criteria for assessing structures and process under EQ 1 provide the framework for assessing what 'good' looks like in GCRF (see Table 1 above). The synthesis also used GCRF's overarching objectives as a frame to guide the analysis:

- promote challenge-led disciplinary and interdisciplinary research, including the participation of researchers who may not previously have considered the applicability of their work to development issues
- strengthen capacity for research, innovation and knowledge exchange in the UK and developing countries through partnership with excellent UK research and researchers
- provide an agile response to emergencies where there is an urgent research need.

We also considered the Stage 1a conclusions and recommendations as an analytical prompt (see summary in Box 2 above).

Table 2: Evaluation Matrix for Stage 1b

Stage 1b MEQ: How are GCRF's investments working and what has been achieved?	Data collection methods in process evaluations	Data analysis approach
EQ 1. To what extent are structures and processes in place to support challenge-led research and innovation with development impact, within signature investment awards and programmes?	<p>Document reviews:</p> <ul style="list-style-type: none"> - <i>Programme level: Policies, procedures, frameworks, ToCs, commissioning documents, reporting</i> - <i>Award level: proposal, ToCs, policies, procedures and frameworks, reports and monitoring, evaluation and learning (MEL) data</i> <p>Key Informant Interviews:</p> <ul style="list-style-type: none"> - <i>BEIS</i> - <i>DP programme managers</i> - <i>Principal Investigators (PIs) and Co-Investigators (Co-Is)</i> - <i>Partner organisations</i> <p>Survey:</p> <p><i>Fund-wide online survey of all GCRF PIs and Co-Is</i></p>	<p>Programme-level analysis to achieve a broad overview of the signature investment and its processes, informed by a document review and analysis of the programme-specific subset of survey data.</p>
EQ 2. To what extent are structures and processes in place to strengthen R&I capacity in LMICs and the UK?		<p>Award-level analysis via a qualitative dive into a sample of awards from within each investment to gain deeper insights into processes and early results from the programme, informed by KIIs and triangulated with specific documentation from each award.</p>
EQ 3. To what extent are processes [to support challenge-led research] efficiently implemented: are they proportionate for UK and LMIC stakeholders, timely and do they offer value for money?		<p>Assessment of the overall programme, examining the extent to which programmatic approach has enabled the awards to work as a portfolio that is more than the 'sum of the parts'.</p>
EQ 4. To what extent have the signature programmes made early progress towards their desired outcomes/impacts, and what evidence exists of these?		<p>Survey analysis: descriptive statistics and regression analysis.</p>
EQ 5. What particular features of award and programme processes have made a difference in positioning the signature		

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<p>investments for overcoming barriers and achieving their desired outcomes, in different contexts? (Context, causal factors)</p>		
<p>EQ 6. What can be learned about the additionality (uniqueness) of GCRF funding from: how the signature investments have adapted their approach in response to Covid-19; the impact of the 2021 funding cuts on the signature investments?</p>		
<p>EQ 7. What lessons can inform improvements in the future delivery of the signature investments & promote learning across GCRF?</p>		

Data sources

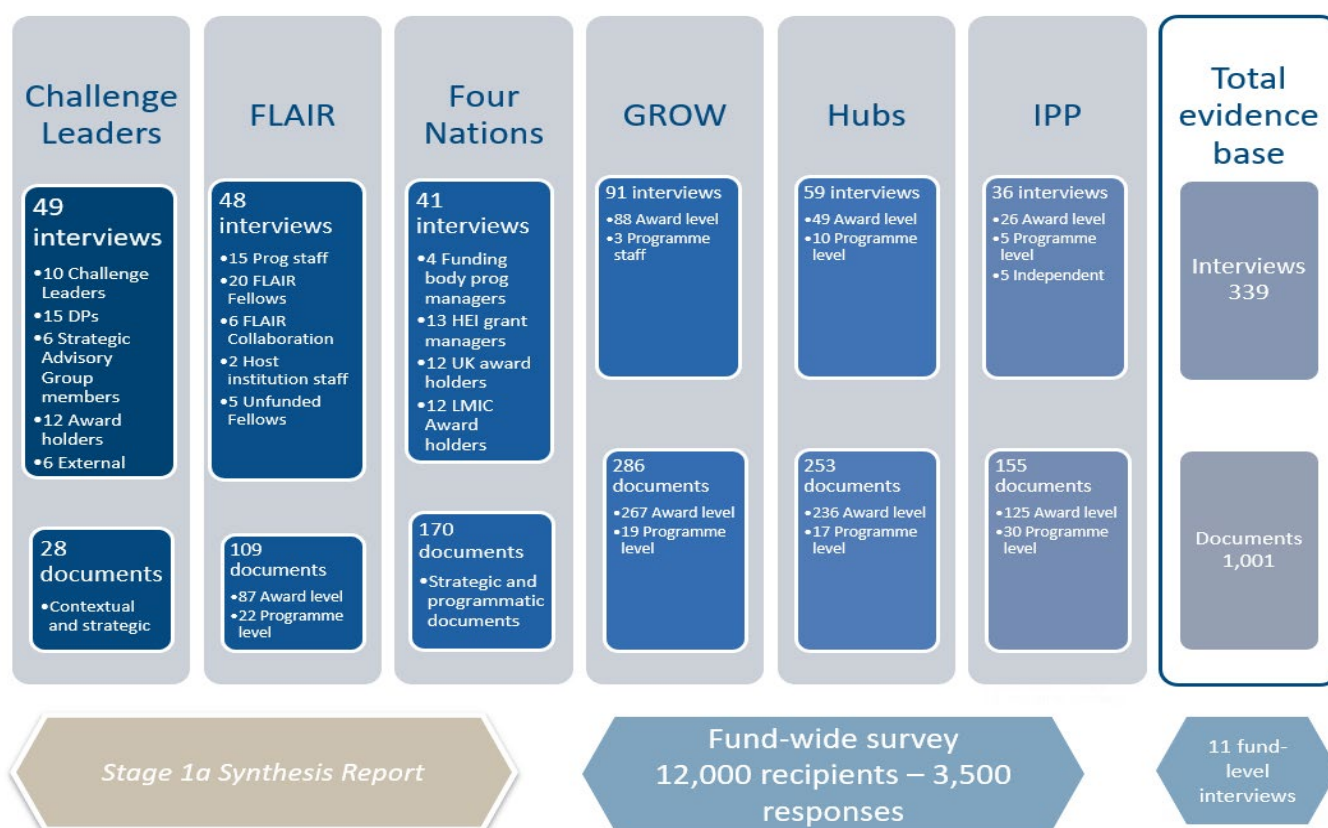
The main data sources for the synthesis were:

- qualitative evidence, drawn from the process evaluation reports and supporting analysis tables from Stage 1b – 339 key informant interviews with award holders, academic and non-academic partners, as well as POs and BEIS stakeholders and 1,001 documents
- quantitative evidence, drawn from the regression analysis of the fund-wide survey of award holders and POs, structured around specific hypotheses that were derived from the evaluation framework – 3,500 responses from 12,000 recipients
- eleven KIIs with BEIS and DP stakeholders to provide a fund-wide perspective on how the fund has worked and what has been achieved.

Figure 4 provides an overview of the evidence base for each signature investment. There is no standard approach to award documentation amongst POs and programmes – as a minimum, all awards have a proposal, and then it depends on the size and duration of the award and the structures and processes that were implemented how much additional documentation is available.³⁴ For example, GROW had 30 awards, which were fairly large consortia and included strategies, and monitoring and evaluation reports. The Hubs programme had only 12 awards, but these were large-scale consortia and so included theories of change, context analyses, strategies, monitoring and evaluation reports. Hubs and IPP had considerable monitoring and evaluation documentation, while as a Fellowship programme, FLAIR had less documentation at the award level. Challenge Leaders had the least documentation, as this was an internal initiative with no monitoring reports collected. In a fund as large and complex as GCRF, documents are held both on DP systems and by award teams themselves, so it is not possible to calculate the total population of documents.

³⁴ Please see the individual process evaluation reports for more detailed information.

Figure 4: Overview of evidence sources for the synthesis



Box 3 below summarises the methodologies followed in the six process evaluations and the fund-wide survey.

Box 3: Summary of methodologies for the synthesis sources

A. Process evaluations

Each process evaluation of the six flagship programmes took an iterative three-step approach:

1. Programme-level overview of the signature investment and its processes: document review and analysis of programme-specific survey data
2. Qualitative deep dive into processes and early results from a sample of awards: KIs and award-level data. Interview transcripts and documents were coded and analysed using Max QDA qualitative analysis software and Excel.
3. Holistic programme-level assessment of the overall programme: portfolio analysis drawing on all data sources.

Triangulation was the main approach to strengthen the evidence gathered:

Within interviews: exploring issues from different angles; asking for supporting examples

Between stakeholder types in both quantitative and qualitative data collection: comparing different perspectives on a project/programme

Between interview data, survey data, award and programme monitoring information and other documentary sources: cross-checking and validating evidence.

B. Fund-wide survey

The survey was designed to provide evidence of how well GCRF investments have been working and what they have achieved, capturing processes, methods, activities and project results across the whole fund. Two parallel and linked surveys were conducted. The first focused on award holders. The survey population included all individual award holders in the fund (Principle Investigator - PI) and all the Co-Investigators (Co-Is), both from the UK and partner countries, from all GCRF programmes, signature and non-signature. Excluded were the institutional award holders in the Four Nations Funding stream. The survey was administered through POs and was sent to 12,000 people. There was a 36% response rate overall. After cleaning of the data, which excluded incomplete responses and those that had not permitted their identifying information, and the process of matching of responses to grant IDs, this left 3,456 usable responses.

Analysis of the patterns of responses across signature and non-signature investments show that awards with more named PIs and Co-I were more likely to have at least one survey response. Awards of longer duration and those still ongoing were also more likely to respond. At the person level, on larger projects, PIs were more likely to respond than Co-Is, although there was a larger population of Co-Is than PIs overall. After processing, the PI share of the usable, matched responses was 44.8%, while the Co-I share was 55.2%. Overall, the response and matching rates were high, meaning that a wide range of size, duration and type of award was covered, with good representation across POs.

The second survey focused on the DP managers of GCRF programmes. A total of 143 GCRF programmes were identified, and one survey response was obtained for each.

The data was analysed against the same EQs used in the process evaluations, firstly in order to provide descriptive statistics in each area of interest. The team then conducted regression analyses to find associations between covariates. All analysis was conducted in Stata version 17 and Excel.

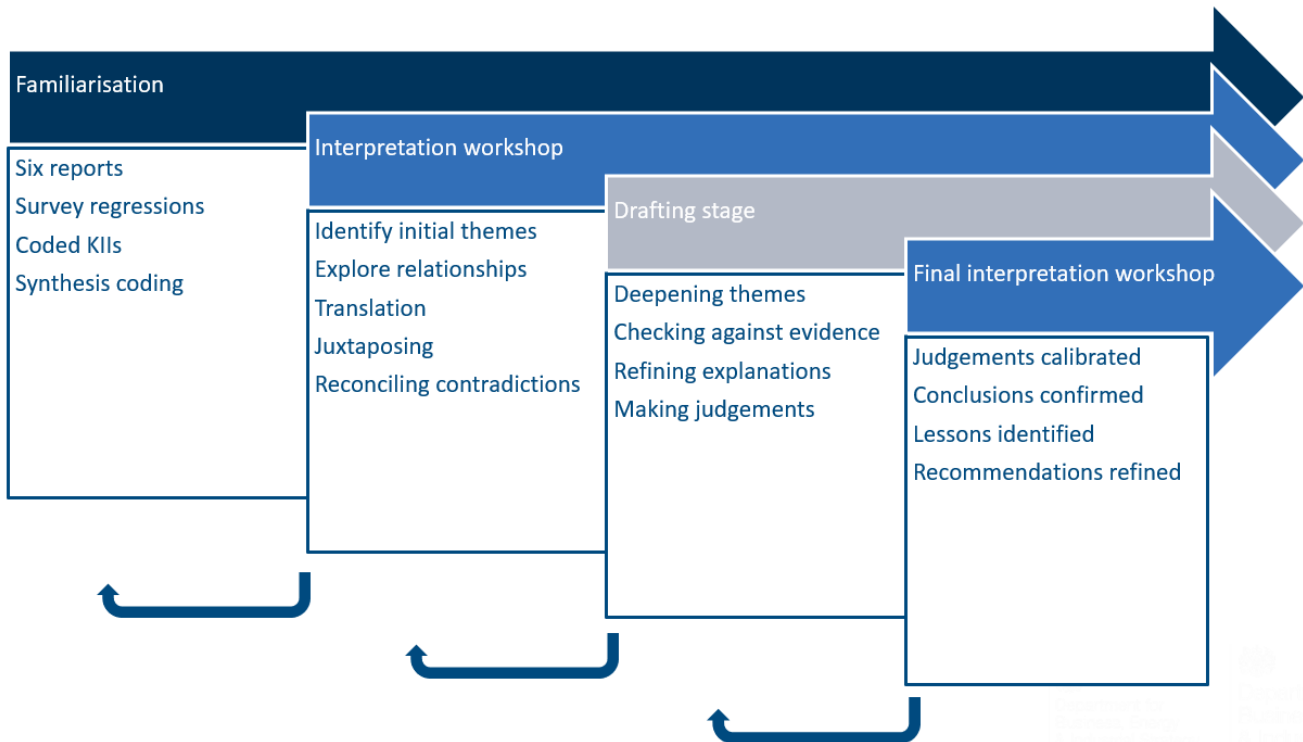
C. Fund-wide interviews

These interviews complemented the other data sources. The team interviewed BEIS and DP staff working at a high level within the fund, in order to gain their strategic perspective. The semi-structured interviews covered topics identified through the initial reading of the process evaluations as areas where it would help to have more information. Interview notes were then coded against the EQs to draw out the main themes, using Max QDA qualitative analysis software and Excel.

Synthesis approach: steps followed

Once data had been collected, the three evaluators in the core team followed clear, iterative steps to ensure a systematic qualitative synthesis (see overview in Figure 5).

Figure 5: Overview of the synthesis method



Step 1: Familiarisation: Three core team members reviewed all six reports, the survey regression results and the coded KIIs to familiarise themselves with the data.

The coding framework used for the process evaluations was structured against the EQs, and so was also used for the synthesis. Notes were made on potential themes identified in this first round, structured against the coding framework.

Step 2: Interpretation workshop (in-person): Three core team members discussed the evidence and refined the emerging themes and sub-themes to arrive at agreed interpretations.

The workshop process followed a systematic approach and applied specific analytical techniques to explore, challenge and consolidate the initial set of themes and findings.³⁵ These included identifying the relevant themes from the source material, exploring the relationships between them, translating, and testing the themes against the evidence, juxtaposing findings and reconciling contradictions in the evidence. The output of the workshop was a set of initial

³⁵ This drew on steps from meta-ethnography in Noblit and Hare, 1988.

insights against each of the sub-EQs for stage 1b and initial broad conclusions and recommendations at the main EQ level.

Step 3: Drafting, developing and refining themes: Each core team member took two EQs and wrote up the related subset of themes to develop the interpretation further. This process involved testing and iterating the themes against the evidence sources as well as drawing out illustrative examples from the individual process evaluation reports to support and nuance the narrative.

Step 4: Final interpretation workshop (remote): The subsections were then collectively reviewed and agreed by the core team and integrated into the report. At this stage, conclusions, lessons and recommendations were determined and refined. The ToC was also reviewed and updated based on the synthesis process. An updated ToC diagram and accompanying narrative can be found in Annex 1.

Strengths and limitations

Like all evaluations, this process faced constraints in terms of time and resources, so priorities were identified, and the synthesis has limitations as well as strengths. These are highlighted below.

- **Synthesis relies on the quality of the process evaluation reports:** The synthesis draws on the process evaluation reports and the supporting analysis tables developed by the evaluators, so we are reliant on the quality of the analysis and reporting.

Mitigation: The synthesis authors supervised the design, data collection and reporting of the process evaluations, and conducted quality checks throughout. The evaluators developed detailed analysis tables, and the synthesis authors participated in the analysis workshops for the individual process evaluations. The reports were all externally quality assured by three independent reviewers, and all reports achieved the same level of quality. We have confidence in the quality of the reports and analysis tables.

- **The qualitative evidence relates to the signature investments only and does not speak to the whole GCRF portfolio:** The synthesis was intended to focus only on the signature programmes, which represent about half the spend in the GCRF portfolio. This means that reflections on the whole fund are limited.

Mitigation: We have been able to contextualise the findings for the signature investments within the whole fund by drawing on the survey analysis, which was disaggregated by signature and non-signature programmes. The Stage 1a analysis also provided contextual information about the whole fund.

- **Diversity among the signature investments:** Four signature investments were programmes in a conventional sense, while the Challenge Leaders were a function with funding attached and the Four Nations was a funding stream. So interpreting findings across them has posed some challenges. Nevertheless, this also reflects the complexity and diversity of GCRF, so it has been helpful to have to accommodate differences.

- **Subjective interpretation:** As with any qualitative analysis, inevitably our interpretation of the evidence may bring in our own preconceptions.

Mitigation: We have followed a systematic synthesis methodology, using the GCRF ToC and the evaluation matrix as the overarching frame. Via a joint process involving three evaluators, we have taken account of differences in interpretation by having a thorough grounding in the evidence and iteratively testing and refining it through the use of the techniques set out above.

4. Findings

This section sets out the synthesised findings against three broad areas, drawing on the underlying EQs:

- assessment of the processes and structures in GCRF and their implementation (EQs 1, 2 and 3)
- assessment of progress towards early results and outcomes (EQ 4)
- key enabling and hindering factors, including the impact of the ODA budget reductions (EQs 5 and 6).

Each section starts with a summary of the main points, which are then unpacked, the evidence examined and conclusions drawn.

Processes and structures in the signature investments

This section discusses the main findings on structures and processes to support excellent ODA R&I with development impact in the six signature investments, from the evidence gathered during August 2021 to March 2022. The findings highlight whether processes were appropriate or not, how they have worked, and their effectiveness at supporting the core foundations for R&I to contribute to tangible development outcomes – fairness and equitable partnerships, integration of gender, inclusion and poverty, and engagement with LMIC stakeholders. This section addresses EQs 1, 2 and 3.

Summary:

In all the signature investments, aligning structures and processes with the ambition of GCRF proved challenging, and many processes had to be innovated through learning-by-doing. Although earlier programmes started out with more conventional research management processes that were not adequate for large-scale, multi-partner projects, all six programmes demonstrated responsiveness through learning-by-doing, rapidly improving their processes through implementation, strengthening the potential for excellent ODA R&I.

The synthesis of the evidence has identified six main processes that were key to supporting ODA R&I, in place to varying degrees in the flagship programmes:

- adaptive, proactive programme management
- coherence and cohort building
- contextual risk assessment and mitigation
- defining and tracking capacity development
- defining and tracking VfM
- building MEL into the programme activity.

These processes have developed and evolved in diverse ways, reflecting GCRF's decentralised model, with many inconsistencies but with rich learning as POs and award holders have learned together about what it takes to support excellent ODA R&I.

Where these processes have been integrated, they have supported a trajectory of broadly improving performance on the core development fundamentals identified as key to promoting excellent ODA R&I and achieving development impact – fairness and equitable partnerships, integration of gender, inclusion and poverty, and engagement with LMIC stakeholders – although there remains scope for further strengthening of these.

Nevertheless, coordination has not happened, nor has learning been widely shared between GCRF's POs and/or with BEIS, leading to diverse and inconsistent structures and processes across the six programmes. This reflects a wider challenge around GCRF's decentralised architecture, which lacks structured processes and incentives to pool learning between the different GCRF entities, leading to critical gaps and missed opportunities in implementation (also noted in the Stage 1a Synthesis and Management Review in 2021).³⁶

The evaluation of the signature investments highlights how, in a fund as large-scale as GCRF, strengthening processes at the programmatic level – which can be thought of as the 'mid-level' from a fund perspective - has the potential to strengthen ODA R&I excellence. Earlier recognition of the need for a step change in ways of working to deliver innovative ODA R&I with impact could have led to the allocation of additional capacity and resources for adaptive programme management within BEIS and POs, alongside sufficiently ambitious policies and processes at the fund's inception. This is a key learning point for any future funds, with a clear opportunity to build on the learning from GCRF.

³⁶ BEIS, 2022. Global Challenges Research Fund (GCRF): Stage 1a evaluation. Available at: <https://www.gov.uk/government/publications/global-challenges-research-fund-gcrf-stage-1a-evaluation>

Aligning structures and processes with the scale and ambition of the GCRF programmes

GCRF's signature programmes were innovative and presented a new way of working for BEIS and the POs in terms of their ambitions for multi-sectoral, interdisciplinary R&I to drive transformational development impact at scale. This meant that the existing decentralised structures within POs for commissioning research were not initially adequate. Bespoke structures and processes had to be put in place to provide the strategic management and accountability required to match ambitions for impact.

Developing these posed challenges for POs and programme staff, leading to time pressures and delayed implementation. A common finding in four of the evaluations (GROW, Hubs, FLAIR and IPP) was that at the start-up of programmes POs did provide guidance on key structures and processes that would be required in awards. However, with hindsight, both award holders and POs felt this initial guidance was too vague or generic to enable awards to implement these correctly to support the impact ambition set out in the calls.³⁷

For a number of UK institutions that had limited experience of challenge-led ODA R&I and engaging partners in the Global South, the areas where they felt there was insufficient emphasis included:

- the extensive monitoring and evaluation processes needed to support accounting for ODA funding;
- the due diligence that UK institutions needed to conduct in order to work with LMIC partners; and
- the need for dedicated project management support to manage large international consortia working in multiple countries in some cases.³⁸

For the Four Nations, at the start of GCRF prior to 2017, there were no additional requirements made for this funding stream. Post-2017, the Independent Commission for Aid Impact (ICAI) Rapid Review led to a decisive shift in the direction of GCRF QR/block grant funding. This included the introduction of three-year institutional strategies and rigorous processes for monitoring making the funding stream focused and strategic.³⁹ In contrast, in the Challenge Leaders initiative, while there was a clear vision, structures and processes were not well defined, which led to considerable variation in processes followed by different CLs.

Despite this general feeling of the initial requirements being insufficient to drive the ambition for development impact, amongst the six programmes, FLAIR and IPP stood out as starting up with a good range of structures and processes that aligned with challenge fund good practices. IPP had contracted a specialist 'space for development' partner, recognising their limited experience in ODA-funded research. The structures brought into IPP included:

³⁷ GROW, Hubs, IPP and FLAIR process evaluation reports, 2022; fund-wide KIs.

³⁸ Challenge Leaders, GROW, Hubs and Four Nations Process Evaluation reports, 2022; fund-wide KIs.

³⁹ Four Nations Process Evaluation report, 2022

- a programme-level ToC and shared vision, which mapped programme activities to the UN SDGs and was actively used during programme implementation commissioning and selection of portfolio;
- tailored, clear and detailed processes to commission research, aligned to the challenges faced by developing economies;
- extensive M&E processes that implemented at both programme and project levels;
- A focus on positioning for use and stakeholder engagement.⁴⁰

FLAIR was able to build on previous experience of funding LMIC researchers, with well-established processes to ensure relevance to local development needs, support award holders and good monitoring and evaluation (M&E) processes in place at the programme level, including informal mechanisms to inform programme learning.⁴¹ Even in these programmes, processes evolved and improved further as experience was gained.

Developing these bespoke structures and processes required structured time at the inception phase of a programme or award to ensure that systems supported effective collaborative working with LMIC partners; the pressures to disburse funds tended to undermine the development of the new ways of working that were needed. Evaluations and fund-wide KIIs highlighted that this included time pre-award to develop partnerships and reach out to new potential collaborators and to ensure co-development of project ideas and approaches. Post-award, at the start of implementation, time was needed to build trust, collectively develop plans to implement research ideas, and deal with any initial challenges associated with collaborative working, including administrative and financial arrangements. For all of the programmes – particularly ones that started earlier, such as GROW and FLAIR – this start-up time was relatively short (about three months).⁴² This limited awards' ability to reach out to new or harder-to-reach potential partners in low-income countries, which may have contributed to the bias observed in the fund in Stage 1a towards 'tried and tested' partners in better resourced. Shorter start-ups also made it difficult to establish contracts in large multinational consortia, while delayed starts also often led to budget underspends in the first year, which creates implementation risks in subsequent years.

The importance of this inception stage was highlighted for IPP, where learning from earlier rounds led UKSA to add in start-up time and resources to the third funding round as a 'discovery phase'. This enabled award holders to build up effective understanding of the project context, which programme learning indicated is critical to the success of projects and the ultimate sustainability of the technical solution.⁴³ The Hubs would also have benefited from a longer inception phase, with the three months allocated for set-up post-award proving insufficient to accommodate the unique challenges and processes involved in setting up large-scale challenge-led ODA R&I projects, e.g. partner mobilisation, due diligence and financial disbursement.⁴⁴ For the Four Nations programme, time outside of a specific award for

⁴⁰ Fund-wide KIIs; IPP Process Evaluation Report, 2022

⁴¹ FLAIR Process Evaluation report, 2022.

⁴² FLAIR and GROW Process Evaluation reports, 2022.

⁴³ IPP Process Evaluation report, 2022.

⁴⁴ Interdisciplinary Hubs Process Evaluation report, 2022.

relationship building was highlighted as an added value that this more flexible type of funding can provide.⁴⁵

Nevertheless, given the innovative nature of these GCRF programmes, all six programmes demonstrated responsiveness through learning-by-doing, rapidly improving their processes through implementation, strengthening the potential for excellent ODA R&I. All evaluations highlight the learning-by-doing that took place within the first year of the programmes and the rapid development of structures and processes to deliver on the ambition of the calls. This was often led by awards themselves rather than POs, in response to the challenges to be solved by award managers in setting up complex projects. For example, in GROW, in the absence of more specific guidance, teams designed their own bespoke award governance and management approaches to ensure equitable partnerships, and programme-wide networking and knowledge-sharing was initiated by award teams.⁴⁶ POs were widely seen to be responsive and flexible in accommodating new approaches proposed by award holders and refining guidance, and so processes evolved and improved.⁴⁷ As noted in Stage 1a, there was no evidence of learning on programme management being shared amongst POs, which arguably could have accelerated improvements.

Nevertheless, survey data suggests that improved processes were a feature across the fund as a whole, not only in signature programmes. The survey found that perceptions of the structures and processes in place were very similar in signature and non-signature programmes (see Figure 6 below).⁴⁸ This suggests that the work done to improve and implement more effective processes as experience grew through implementation was echoed across the fund, even though direct evidence of lesson sharing or other mechanisms by which this could have happened was not found.

The survey analysis highlights that the diversity of GCRF awards means that not all awards are expected to include all these structures and processes. Respondents were asked to select all that applied in their programme. The elements that are perceived to feature most strongly are: theory of change and impact strategy; goals linked to SDGs; communication plan. However, some awards are fairly small and short, and so would not have been expected to include some of these processes.

Figure 6: Percentage of survey respondents who reported key structures and processes observed in signature and non-signature programmes⁴⁹

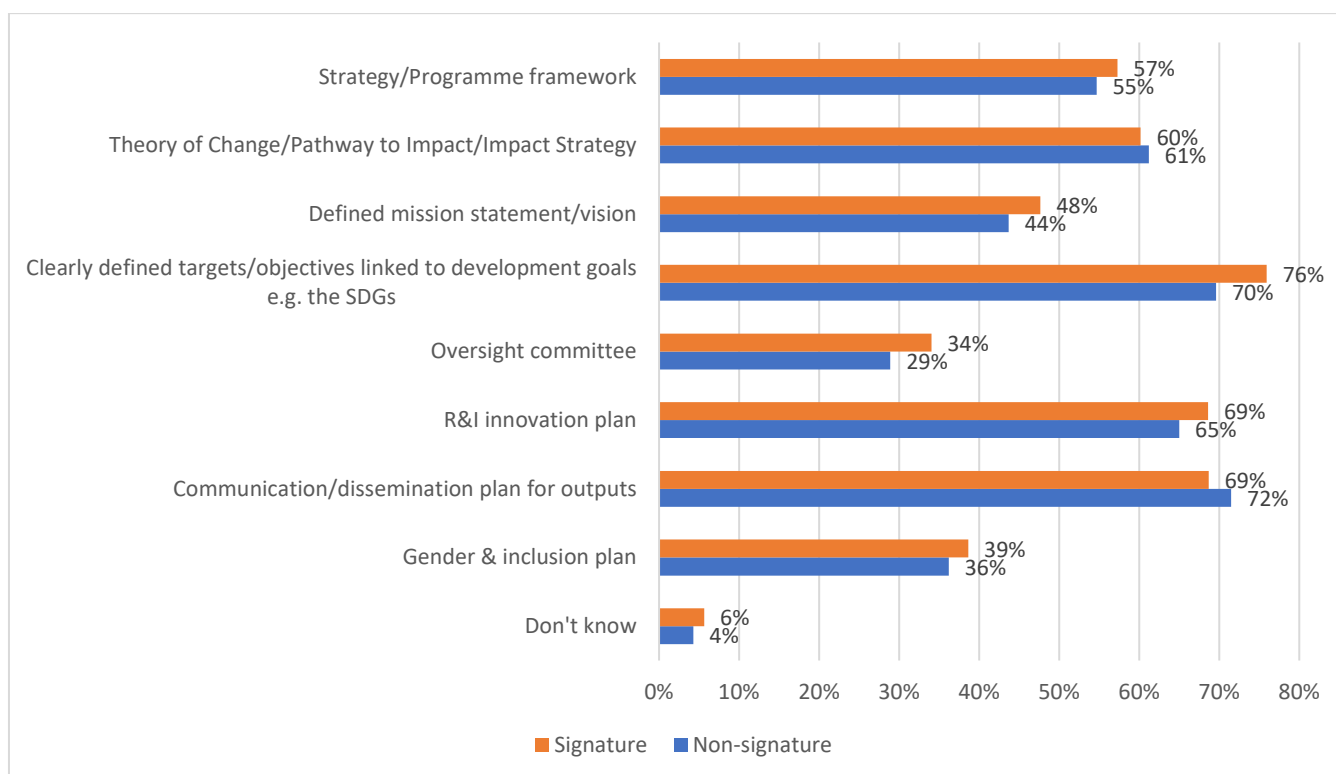
⁴⁵ Four Nations Process Evaluation report, 2022.

⁴⁶ GROW Process Evaluation Report, 2022

⁴⁷ All process evaluations; fund-wide KIIIs.

⁴⁸ GCRF Survey Report, 2022, Annex 2.

⁴⁹ N=3454



Effective structures to support challenge-led, ODA research and innovation

Over and above the processes identified through the survey, the synthesis of the evidence from the programme evaluations highlights six essential processes that are required to maintain a focus on the foundations of development impact through programme management:

- adaptive, proactive programme management
- coherence and cohort building
- risk assessment – contextual and risks to vulnerable populations – and mitigation
- defining and tracking capacity development
- defining and tracking VfM
- MEL.

No single programme had all of these in place – earlier programmes, such as GROW, started out with more conventional research management processes that were not adequate for large-scale, multi-partner projects. Over time, all six programmes demonstrated responsiveness to learning-by-doing, rapidly improving their processes through implementation, strengthening the potential for excellent ODA R&I. These essential processes are now discussed in turn.

Adaptive programme management processes

Evidence from all the programmes showed that challenge-led ODA research requires a hands-on, flexible and adaptive programme management right through implementation to drive coherence and consistency in processes. Positive examples of programme management were seen in all the programmes. For example, in both GROW and Hubs, UKRI has assigned a Project Officer to each award, which provided a link between the award team,

the Research Council and UKRI. Guidance around the role was rather vague at first, leading to variability in how the role was implemented, but it crystallised into a ‘critical friend’ providing advice and linking up between awards.⁵⁰ In both IPP and FLAIR, programme staff were seen as adaptive and supportive, although there were some gaps in specific areas of technical support that were requested, such as support with gender equality, social inclusion and poverty (GESIP), sectoral expertise for working in LMICs and obtaining follow-on funding.⁵¹

Box 4: What is adaptive management?

Adaptive management is a well-established approach in development programming, aiming to improve the impact and effectiveness of programmes and projects. It is an intentional management approach to making decisions and adjustments while programmes are running in response to feedback and learning. The ability to adapt requires an environment that promotes intentional, structured learning, flexible project and programme design, minimises the obstacles to modifying activities and creates incentives for managing adaptively. In a decentralised delivery architecture such as GCRF, ensuring that learning is shared among all POs is a challenge, but is an essential process for managing adaptively.⁵²

A flexible approach has been important in maintaining proportionality of reporting requirements. Generally, across the signature investments the reporting requirements have been broadly proportionate to the size of investment and have varied by programme and award to enable this. We see several examples of this flexibility in approach being an important factor in both ensuring the administrative requirements are proportionate and enabling the investment to address emerging needs and meet its goals. For example, in the Four Nations case, evidence indicates that the HEIs with less ODA experience and in receipt of smaller allocations took a targeted approach designed to strengthen partnerships, expand networks, build capacity internally and with partners, and lay the groundwork for future funding through funding networking, partnership events and fellowships. HEIs with higher levels of ODA-related experience and higher levels of funding were able to take a more multidimensional approach by leveraging their existing infrastructures, capacities and partnerships within larger projects in LMICs to strengthen impact, as well as funding smaller projects that helped to establish new areas of work.⁵³ In the case of GROW, flexibility – alongside the scale of the investment – is highlighted as key in enabling its success. GROW was large enough to allow for flexibility and adaptive management but still small enough for personal connections to be established and a cohort network to be established.⁵⁴

⁵⁰ GROW and Interdisciplinary Hubs Process Evaluation reports, 2022.

⁵¹ FLAIR and IPP Process Evaluation reports, 2022

⁵² See for example, FCDO’s programme Global Learning for Adaptive Management (GLAM), available at <https://devtracker.fcdo.gov.uk/projects/GB-1-205148/summary> and the US Agency for International Development’s (USAID’s) Learning Lab briefing note on Adaptive Management, available at <https://usaidearninglab.org/lab-notes/what-adaptive-management-0>

⁵³ Four Nations Process Evaluation report, 2022.

⁵⁴ GROW Process Evaluation report, 2022.

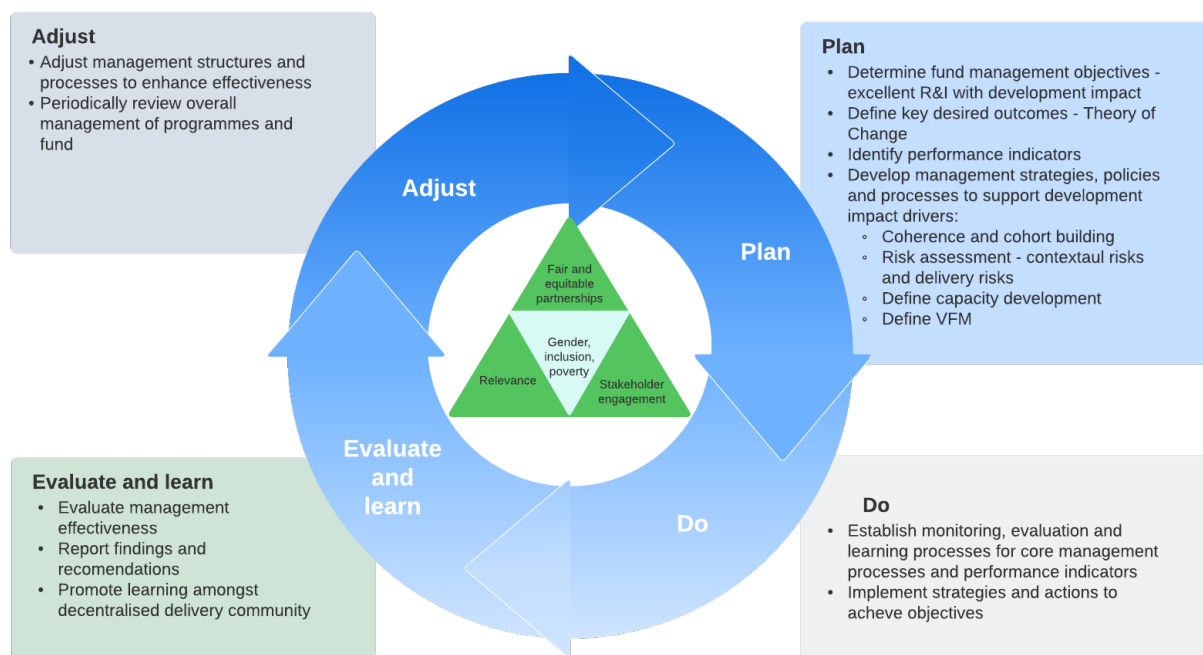
Adaptive management, however, requires significant capacity at programme management level, including DP staff resources as well as specialist skills such as in GESIP. All six programme evaluations found that DP staff were often overstretched and juggling detailed administrative tasks with more strategic programme management within complex, large-scale portfolios. Fund-wide KII highlighted that, along with all GCRF programmes, the signature investments were run on a very lean operating model – originally, it the aim was for GCRF to be administered through POs existing systems for R&I commissioning. Respondents indicated that, at the start of the fund, BEIS pegged DP operating costs at approximately 5% of the total programme budget, which was sometimes not sufficient to meet this challenge. This was particularly notable in the Four Nations funding stream but was a factor observed in all the signature programmes. Constrained staffing at the programme level may be one of the reasons why many of the effective structures and processes were initiated by award teams, as the responsibility had been delegated to them due to limited capacity at the programme level. Fund-level respondents, however, indicated that BEIS did show flexibility over operating costs as experience grew across the fund, and the need for more strategic management emerged. This may have contributed to the widely held perception among award holders that, through implementation, programme managers were able to show flexibility and adapt programme management, showing learning and evolutions towards stronger processes over time. Fund-level respondents indicated that nevertheless, staff resources for strategic programme and portfolio management at POs remained a challenge.⁵⁵

Figure 7 illustrates how the adaptive management cycle could have applied to GCRF fund and programme management if approached in a more intentional way.

Figure 7: Adaptive management cycle⁵⁶

⁵⁵ All process evaluations; fund-wide KIIs.

⁵⁶ Adapted by the evaluators from the Conservation Measurement Partnership Open Standards for effective Conservation Practice, <https://conservationstandards.org>



Coherence and cohort building

Cohort building for awards within a portfolio to coordinate and share knowledge was an important driver of collective progress towards impact. Programme managers also benefited from linking up with counterparts to develop collective approaches. The FLAIR programme is notable for its efforts to create opportunities for collaboration and cohort building between FLAIR fellows, as well as wider networking opportunities with other like-minded researchers. Cohort strengthening was an integral aspect of the programme with Royal Society's (RS) partner, African Academy of Sciences (AAS) playing a key role. Prior to Covid-19, this included face-to-face networking events at the inception of each FLAIR cohort. During the pandemic, RS and AAS have established virtual alternatives, including regular 'FLAIR teas', in which fellows provide updates on their research progress. There have also been instances in which the FLAIR programme has made intentional efforts to create specific links between FLAIR fellows and other researchers funded by RS, for example where a potential synergy of research interests has been identified. In response to the survey, 86.5% of FLAIR fellow respondents reported that they had received programme support in the form of networking opportunities.⁵⁷ In award-level interviews, several FLAIR fellows provided examples of new collaborations that had been established as a result of such engagements.

In other examples, UKRI's later programme, the Interdisciplinary Hubs, showed a good range of examples of support for coherence and cohort building, including cohort events for the Hubs to share best practice and promote coordination, notably on equitable partnerships and gender sensitive research approaches.

⁵⁷ GCRF Fund-wide Survey, 2022.

In both Hubs and GROW, however, the strongest and most enduring mechanisms were the informal ones developed by the award holders themselves, such as the communities of practice and networks formed around key themes in GROW, and the network of Hubs managers.⁵⁸ Among the Four Nations funding councils, staff capacity was a challenge, and so, in an interesting development, GCRF institutional officers (IOs) within HEIs and other professional services staff in England reported instead using the Association of Research Managers and Administrators (ARMA) network for peer support and learning about establishing and administering the funding stream.⁵⁹

Coherence with the wider development landscape was only addressed at the programme level by IPP and to some extent by the Scottish Funding Council. Other programmes relied on award holders to assess the wider development context for their award. IPP made efforts not to duplicate with others in the aid space through consultations with FCDO, the Met Office and other UK aid actors. Furthermore, IPP required projects to develop sustainability and exit strategies, and knowledge and communication plans. This supported IPP awards in thinking about their project within the context of the wider development landscape.⁶⁰ In examples from the devolved nations, the Scottish Funding Council developed quarterly coordination mechanisms between HEIs, partly with a focus on coordination to avoid overburdening the same LMIC communities with too many research projects.⁶¹ Staff in the devolved nation funding bodies also coordinated with each other to ensure a coherent approach and to share learning.⁶²

Aside from the examples described above, other programmes did not build coherence between awards in the same way, which meant that learning was not consistently shared between award holders on country contexts, development challenges and contextual risks. Opportunities to share knowledge and improve effectiveness at a portfolio level were therefore missed. For example, the GROW programme notably lacked structured opportunities for award holders to come together, share lessons and build synergies. There was a working group for project managers set up by UKRI, which met about twice per year (initially in person, then virtually) and was considered useful. However, no corresponding forum was set up for academic staff, and there was no evidence of efforts to connect awards around themes or geographic focus. Where networking did occur, this was on the initiative of award holders rather than as a coordinated effort from UKRI.

A key gap, seen across all programmes, was coordination and peer learning between POs across GCRF as a whole. The structures put in place to facilitate cross-fund learning, including the Challenge Leaders initiative, did not support this effectively. Challenge Leaders were the main structure intended to promote cross-fund coherence. Individual Challenge Leaders did develop proactive mechanisms for management, support and networking within their own Challenge portfolios. Liaising across councils and POs was more challenging, and the extent to which Challenge Leaders were able to do this varied

⁵⁸ Interdisciplinary Hubs Process Evaluation Report, 2022.

⁵⁹ Four Nations Process Evaluation Report, 2022.

⁶⁰ IPP Process Evaluation report, 2022.

⁶¹ Four Nations Process Evaluation Report, 2022.

⁶² Four Nations Process Evaluation report, 2022.

considerably. Overall, the evaluation found that Challenge Leaders were spread too thinly to bring coherence to a fund the size of GCRF.⁶³

Further limited attempts were observed in FLAIR to establish connections with other POs, but these mainly encompassed the other academies. Connections between UKSA and UKRI remained weak. Opportunities to exchange valuable learning on shared challenges were missed.⁶⁴ BEIS has convened Delivery and Learning Forums to share learning between POs, but in KILs, stakeholders felt that this aim had not been realised, and overall this has been a missed opportunity.⁶⁵

Contextual risk assessment and mitigation

Important risks associated with working in developing countries and vulnerable communities and ecosystems were not identified, analysed and actively managed in most of the programmes. The approach seen in most programmes was largely reactive to events, with some exceptions in terms of good practices seen in two of the programmes. IPP was one programme that illustrated good practice on how to manage contextual risks when working in LMIC settings, with a requirement for explicit consideration of risks during both the design and delivery of the project, with evidence suggesting that this was a successful process with a good response from awards. In the survey, 73 % of award holders agreed or strongly agreed that potential negative consequences of their project were identified and mitigated.⁶⁶ However, this approach was not seen consistently across the signature investments.

Good contextual and ethical risk management were seen in relation to fragile or conflict affected settings, though these were typically initiated by award holders with experience of working in these settings and so were not consistently applied. GCRF IOs and PIs also identified risks specifically associated with conducting research in fragile or conflict affected contexts and with vulnerable groups. Enhanced ethics approval processes, safeguarding procedures and 'do no harm' analyses were introduced as mitigations. Safeguarding processes were not a requirement for the Four Nations funding stream until the introduction of the institutional strategies in 2018. Funding bodies tried to ensure they were in place by making them a special condition of the grant. The cohort networks that were promoted in this funding stream facilitated the exchange of knowledge and experience on contextual and ethical risk management, resulting in the emergence of good practices by the time of the process evaluation.

Given award holders' mixed levels of experience of working in LMIC settings, a programme-level focus was needed. This was challenging for the staff in POs given their available time and resource. Given the presence of researchers and institutions who had less experience of working in LMICs and fragile contexts, with the potential for negative impacts to arise inadvertently, POs should have placed greater emphasis at the programme level on managing important contextual risks, rather than delegating to individual institutions and PIs. In KILs, stakeholders emphasised that this should have been in place from the start to

⁶³ Challenge Leaders Process Evaluation report 2022; fund-wide KILs.

⁶⁴ Fund-wide KILs.

⁶⁵ Fund-wide KILs.

⁶⁶ IPP Process Evaluation report, 2022; GCRF Survey Report, 2022, Annex 2.

raise awareness of the risks of working in fragile contexts and vulnerable communities and how to mitigate them.⁶⁷ For example, there was work in Afghanistan where, following the take-over of the Taliban in 2021, local researchers were targeted for having received UK funding.⁶⁸ In less extreme cases, there were examples of the need to ethically manage expectations of benefits arising from research when engaging with low-income communities. Ethical risk considerations when engaging communities were made more acute when resuming field research after the pandemic, when the risks of spreading covid infection had to be weighed against delivering the research.⁶⁹ Programme level guidance on contextual risk management could have strengthened practice across awards. This is an important area of practice in the research for development field, particularly around ‘do no harm’ and safeguarding⁷⁰, offering a rich area for learning and for adapting practices for the GCRF community. However, this would also require additional resources and capacities at the DP level, with staff already overstretched administering large and complex programmes.

Defining and capturing capacity building effort as many potential meanings and has been interpreted and implemented differently across the six programmes. **There are many ways in which GCRF could have and did support capacity building, spanning from the research skills and knowledge of individuals to the capacity of institutions to engage in development-focused research. There is, however, no clear definition or sense of purpose with regard to capacity building in place at the fund level; and even within individual signature investments, capacity building – while often taking place – is typically not clearly defined, nor is any focus specified.**⁷¹

The process evaluations highlighted many strong examples of capacity building, mainly at individual level in terms of research and leadership capacities, but also at institutional levels in terms of improved research environments; nevertheless, the general lack of a clear framing and definition for capacity building at fund level has led to some missed opportunities. A notable example is the GROW programme, whose core objective is capacity building. The GROW ToC sets out a broad approach to capacity building through various activities such as training, skills development, apprenticeships and secondments. Capacity development in the GROW ToC is focused on Early Career Researchers (ECRs). It is seen as closely related to building partnerships and engaging stakeholders to support knowledge sharing and dissemination. The final focus of the GROW ToC is the research process itself to test and adopt innovative approaches and expand information and knowledge on development challenges. In this way, the GROW ToC provided a comprehensive framework for capacity development. These elements were communicated in

⁶⁷ Fund-wide KILs; Challenge Leaders Process Evaluation report, 2022.

⁶⁸ Challenge Leaders Process Evaluation report, 2022.

⁶⁹ GROW Process Evaluation report, 2022.

⁷⁰ See for example, ‘Incorporating the principle of “Do No Harm”’: How to take action without causing harm Reflections on a review of Humanity & Inclusion’s practices’, Jean Martial Bonis Charancle and Elena Lucchi, 2018, accessed from

https://www.alnap.org/system/files/content/resource/files/main/donoharm_pe07_synthesis.pdf

⁷¹ All process evaluations; fund-wide KILs.

the call requirements and provided awards with clarity on their design and also for tracking their progress.⁷²

Most of the GROW capacity development focused at the individual level, but there are examples of capacity development that benefitted Southern institutions, for example, provision of laboratory equipment; supporting the establishment of an ethical system; for postdoc programmes; and support for building closer relationships with industry. From an institutional and geographical perspective, however, GROW tended to skew towards existing partnerships rather than establishing new partnerships where there may have been more need.

Another strong example is FLAIR, which had a significant focus on capacity building. Capacity development is a primary criterion for FLAIR awards, and some very strong examples of capacity building are apparent. These include improvements in FLAIR fellows' skills and experience of demanding research designs such as clinical trials, and new digital research techniques, as well as training in research leadership and management and expanding collaboration networks.⁷³

In FLAIR the assessment of capacity building has tended to be broad and open to different approaches and was not supported by a programme-level definition or framework until later rounds. This led to an emphasis on individual capacity development, with less focus on strengthening institutional research environments. The evaluation found that another key criterion of the programme, scientific excellence, has tended to be prioritised over capacity development, leading to a skew towards better-resourced African institutions that already had the capacities to meet the scientific excellence criteria. For example, a disproportionate number of fellowship awards have gone to better-resourced South African institutions. This imbalance was noted by the FLAIR programme managers, who put forward various proposals to redress the balance in subsequent rounds. These, however, could not be finalised due to the budget reductions in 2021-22.⁷⁴ A number of FLAIR interviewees also highlighted that many individual researchers at South African universities come from nations across the African continent, and so have the potential to spread wider benefit. This highlights the complexities of research capacity building where individual researchers are free to move to institutions that offer greater enabling research environments than institutions in their countries.

For both GROW and FLAIR, the definition and framing of capacity building could also have set out a desirable balance of focus – individual, institutional, geographic. Without this, it becomes difficult to navigate the imbalances towards better-capacitated institutions and geographies and broaden the benefits from the capacity building in the programme towards lower resourced settings.

A lack of clear framing at the fund level can also create challenges in measuring and capturing the full scale and nature of capacity building achieved. Where there is no definition or clear sense of the purpose and scope of capacity building intended, it become difficult to measure the effectiveness of capacity building efforts – and in particular to compare

⁷² GROW Process Evaluation, 2022

⁷³ FLAIR Process Evaluation report, 2022.

⁷⁴ FLAIR Process Evaluation report, 2022.

or aggregate data across the different signature investments or even across individual awards within a portfolio. This lack of clarity has also led to fairly simplistic measures of capacity building being used in some cases, such as IPP.⁷⁵ For example, while significant efforts have been made to ensure evaluation of awards within the IPP portfolio, many awards used simplistic metrics – such as level of participation in capacity building events such as workshops or training sessions – as a proxy. Only 30% of awards defined target capacity dimensions, capturing baseline capacity or the extent to which capacity improved through training. For the majority of IPP awards, therefore, the metrics used were likely to provide an incomplete or inaccurate picture of capacity building.⁷⁶

Framing of value for money and financial processes

There are a number of challenges to assessing VfM in GCRF, given its diversity and scale (see Box 5). The process evaluations examined the processes and systems in place to track VfM in the signature investments. Evidence highlights a number of important gaps and lack of coordination at all levels of the fund that have led to a proliferation of approaches to VfM, with consequent limits on the ability to track VfM in a consistent way within the signature investments. VfM tracking requires some common frameworks, a shared understanding of the relevant VfM dimensions and some coordination of monitoring approaches so that comparisons and judgements can be made within and across programme portfolios. While flexibility is important to allow for diversity of programmes and projects, the evaluation has found that, at the fund level, VfM requirements were not clearly framed at the start of the fund, and so agreed parameters for VfM were not cascaded to the Partner Organisation level. This meant that VfM tracking approaches at programme and award level were not coordinated.

This has led to a proliferation of different approaches to VfM within the signature programmes. Three of the signature investments (e.g. FLAIR, Four Nations, Challenge Leaders) have no formal means of assessing VfM, including no formal economic assessment of proposals or awards, nor the systems in place at award level to monitor VfM through implementation. The UKRI programmes – GROW and Hubs, did require a VfM assessment at the commissioning and peer review stage, but this is insufficient in its current form. In the absence of a VfM framework that establishes defined parameters and guidance on VfM monitoring, peer reviewers can only provide an indicative judgement on proposers' approaches.

In these programmes, where proposers were required to provide a VfM approach, the guidance provided by POs did not provide specifics as to how this should be implemented and tracked, leading to inconsistencies. For example, GROW awards did not have specific guidance on VfM and so generally fell back the procurement guidelines of lead institutions. This is a starting point, but as procurement generally focuses solely on the economy of inputs and price, this approach misses other important dimensions of VfM when working in LMIC contexts (see Box 5). For example, an R&I project working with organisations and groups in low-resource contexts in LMICs are likely to face higher costs, which may or may not be allowed for in a UK institution's procurement guidelines. Different institutions also have

⁷⁵ All process evaluations.

⁷⁶ IPP Process Evaluation report, 2022.

different procurement guidelines, leading to inconsistencies amongst awards within the GROW programme.⁷⁷

The Hubs, as large-scale projects, were required to demonstrate VfM in their financial management plans at the commissioning stage, although again little bespoke guidance was provided – Hubs were signposted to DFID’s 4Es⁷⁸ without guidance as to how to implement the approach. In the Hubs’ financial management plans, VfM relating to the Economy dimensions was well-covered, and a number of approaches were put in place, e.g. adherence to universities’ policies on expense claims, and tendering for procurement of high-value goods and services. However, the lack of specific guidance meant that many UK host institutions had to develop new processes for working with LMIC partners of which they had little previous experience, leading to inefficiencies, and a diversity of approaches that raised questions over transparency and fairness.⁷⁹

The only signature investment which demonstrates more substantive assessment of VfM is IPP. All IPP awards were required to undertake a cost-effectiveness analysis to demonstrate the benefits of the project relative to a non-space solution. Considerations of VfM were also incorporated into project selection and implementation. Monitoring and reporting also captured VfM metrics, and a cost-benefit assessment was conducted in the last year of the IPP programme.⁸⁰

Navigating VfM within the signature investments is clearly not straightforward and required time and flexibility to establish. However, the relatively limited support and guidance on VfM in most cases has made it more complicated to find common parameters and points of comparison within the diversity of approaches that have arisen. Efforts have since been made to define and conceptualise VfM in the context of GCRF, but with signature investments and their monitoring approaches already well established it is difficult to retrofit this VfM framework and gather VfM data consistently.⁸¹

Box 5. Tracking of VfM in GCRF⁸²

As a complex, innovative and large scale fund, GCRF faces a number of obstacles to simple measures of return on investment. There is a dearth of documented benchmarks and parameters from which to judge the VfM of the highly diverse GCRF awards. Further challenges arise from important gaps in fund-wide mechanisms to monitor VfM. As such, the GCRF evaluation team has adopted a learning methodology to VfM, implemented through different stages of VfM assessment over the course of the evaluation. This

⁷⁷ GROW Process Evaluation Report 2022

⁷⁸ A framework developed by the former DFID which looks at four areas – economy, efficiency, effectiveness and equity – to make a judgement about the VfM of a programme or project. See <https://beamexchange.org/guidance/monitoring-overview/assessing-value-money/4e-approach-vfm/> (accessed 10 August 2022).

⁷⁹ Interdisciplinary Hubs Process Evaluation Report, 2022

⁸⁰ IPP Process Evaluation Report 2022

⁸¹ GCRF VfM Report, 2022.

⁸² In parallel with the synthesis, the GCRF evaluation is implementing a VfM assessment of the signature investments, with findings reported separately. The synthesis report covers the evidence on the extent to which VfM is framed and tracked, with a focus on processes.

approach recognises the evolving nature of the GCRF itself, as well as the likely emergence of more evidence on the fund's outcomes and impacts over time.

The approach to VfM has built on a pilot during Stage 1a of applying a VfM rubric to individual GCRF awards. The award level rubric draws upon the Department for International Development's (DFID's) '4Es' Framework for assessing VfM based around the following principles:

Economy addresses issues of quality, innovation, progress on activities and outputs, interdisciplinary risk, and additionality.

Efficiency addresses the engagement of partners to invest in outcomes through capacity strengthening, relevance of research, and positioning for achieving outcomes.

Effectiveness addresses research impacts on policy and practice, tracking changes occurring through improved potential to act on results and deliver outcomes.

Equity addresses issues of gender equality, social inclusion and poverty (GESIP) and fairness.

Financial structures and requirements in general within GCRF have been challenging for LMIC partners, with negative impacts on disbursing funding in a timely manner to partners, although this is not a challenge unique to GCRF. In particular, delayed access to funding emerged as a significant barrier mentioned in process evaluations and KIIs. This is partly due to most programmes following a reimbursement or payment-in-arrears funding model, which poses challenges for financial systems of LMIC institutions. LMIC institutions typically have little or no reserves to fund project staff and equipment upfront, and many LMIC institutions' financial policies require an upfront payment from international funders. This creates tensions with the in-arrears model often favoured by R&I funders in the global north. There are also examples of delays due to the need for LMIC institutions to meet due diligence requirements, which can take time and during which funding cannot be accessed.

These are recurrent challenges with the disbursement of aid-related funding and are not exclusive to GCRF. Often rules that govern the disbursement of aid-related funding to LMIC partners are set at the government level as part of legal and risk management regimes and are difficult to circumnavigate.⁸³ The issue for GCRF is that these disbursement-related rules create tensions with the aspirations to fair and equitable partnerships at the award level. In a complicated funding system like GCRF's, where financial risk is cascaded down from government to POs and thence to the UK institution, the evaluation has not been able to establish at which level rules are set. The evaluation found, however, that POs and award holders found some flexibility to mitigate these challenges.

⁸³ For a discussion of this, see "Research funding instruments and modalities: Implication for developing countries", Merle Jacob, OECD 2011. https://www.oecd.org/sti/Draft_Report_public_funding_instrument_final.pdf

For example, FLAIR was the only signature programme which made advance payments to award holders in recognition of these challenges for LMIC institutions, based on their experience of working in LMIC contexts. Royal Society was evidently able to accommodate this approach within its financial systems. IPP was also able to offer flexibility in disbursing funding in advance for the export of equipment, although the programme was also seen to be slow in disbursing funding. Within GROW and Hubs programmes, UK award holders and their institutions, in consultation with UKRI, sought mitigations to the in-arrears model, including institutions making advance payments to enable lower-resourced partners to participate.

A view frequently expressed in interviews for both GROW and Hubs was the need for a common approach from UKRI to the issue of payment in arrears, rather than this being left to lead institutions. This lack of a common approach has led to significant inconsistency around financial management, even within the same programmes. While ad hoc development of financial processes has generated important learning, the lack of a standardised approach for addressing issues relating to financial disbursements raises questions over transparency and fairness, resulting in some LMIC partners being given advance payments and others not, while LMIC institutions that had prior relationships with UK institutions were perceived to be benefitting from bespoke arrangements.⁸⁴ A positive note was that despite the delays in funding, LMIC respondents to the survey highlighted that when funding was eventually released to them, it was perceived as sufficient.⁸⁵

MEL processes

The Stage 1a synthesis identified a fund-wide challenge around consistent MEL to support adaptive management at different levels, which was reflected in the signature investments' varying approaches to MEL. MEL processes at the fund level were also not established until well after the fund was set up, leading to diversity in practice and challenges in subsequently attempting to realign practices. Fund-wide KIIs in particular highlighted this as an ongoing challenge. The most structured MEL practices were seen in the Hubs (UKRI) and IPP (UKSA) programmes. Approaches in IPP were led by a specialist MEL agency (the only programme which took this approach) and included baseline, midline, endline and cost-effectiveness evaluations at both award and programme level. Annual strategy updates highlighted gaps and made recommendations for improvements. There was evidence of learning being applied in more targeted calls and strengthened processes. Respondents highlighted that MEL processes had helped to understand the impact of the project and provided opportunities to strengthen their relationship with stakeholders in the country through communication and feedback. Analysis of survey data reinforces this; programmes which had MEL processes in place were 11.6 percentage points (pp) more likely to report positive outcomes than programmes which did not.⁸⁶

In the Hubs programme, the UKRI management team leads a set of robust MEL structures, including requirements for the Hubs to have detailed monitoring and evaluation (M&E) plans, a ToC, a logframe, an updated risk register and a financial

⁸⁴ All process evaluations; GCRF Survey Report, 2022, Annex 2.

⁸⁵ GCRF Survey Report, 2022, Annex 2.

⁸⁶ Interdisciplinary Hubs and IPP Process Evaluation reports, 2022; GCRF Survey Report, 2022, Annex 2.

management plan at inception. Additionally, award holders are expected to report annually (as well as a one-off inception and midterm stage gate review) to UKRI and report through ResearchFish, against six additional GCRF categories. Reporting from the Hubs feeds into a central UKRI M&E framework and enables UKRI to track progress against programme objectives (this data informed the midterm stage gate review process). However, evidence from documents shows that despite the strong focus on M&E systems, minimal guidance or parameters were provided on what M&E should look like within awards. Consequently, the MEL systems of the sampled Hubs awards differ from each other, and over time most have evolved significantly. Hubs have taken the lead in elaborating their M&E systems, with some Hubs developing sophisticated systems for M&E and incorporating learning into management and implementation.⁸⁷

The evaluation finds that the focus on MEL has strengthened over time, and more resources have been dedicated to supporting it as part of programme management. For example, in GROW, although there was a stage gate review at the mid-point of the programme, the feedback from this was seen as quite minimal, and there was a general lack of clarity about MEL requirements at the award level. The awards that have established strong MEL systems and processes have done so under their own initiative, going beyond the guidance received by UKRI.⁸⁸ In contrast, in FLAIR, MEL was found to be well-established, with annual and final reporting from fellowship awards on indicators aligned to the programme ToC, orientation on MEL reporting provided to FLAIR Fellows and informal mechanisms to inform programme learning.⁸⁹ In the Four Nations funding stream, the emphasis was the reverse, with detailed reporting at the HEI level providing good information, but much less focus and analysis at the programme level, and consequently limited analysis and learning for the funding stream as a whole.⁹⁰

Discussion: what has been the effect of the structures and processes on ODA R&I design and delivery?

The preceding section has discussed the presence to varying degrees of core processes and structures in the flagship programmes to support excellent ODA R&I. We now discuss the impact of these on the core development dimensions of fairness and equity, integration of gender, poverty and social inclusion, and positioning for use – the preconditions for development impact identified in earlier stages of the evaluation and in the GCRF ToC (see Annex 1 for ToC diagram).

⁸⁷ Interdisciplinary Hubs Process Evaluation report, 2022.

⁸⁸ GROW Process Evaluation report, 2022.

⁸⁹ FLAIR Process Evaluation report, 2022.

⁹⁰ Four Nations Process Evaluation report, 2022.

Box 5: Contextualising GCRF's performance

The Independent Commission for Aid Impact (ICAI) is the independent body which scrutinises UK aid spending, producing reviews of ODA programmes, funds and portfolios to ensure that funding is spent effectively and provides VfM. For this synthesis, these reviews provide a robust, independent source of evidence to contextualise GCRF among other large-scale government-administered funds. We therefore searched for ICAI reviews of funds dating from the last 10 years. Although most of these funds are not solely R&I funds, they do have R&I funding elements, and operate at a similar scale of funding as GCRF. These funds were:

- International Climate Fund (2011–16) – 2014 review
- The cross-government Prosperity Fund (2016–21) – 2017 review
- Conflict, Stability and Security Fund (2015–present) – 2018 review
- Newton Fund (2014–21) – 2019 review.

We analysed the main themes emerging from the documents to understand better how well GCRF has performed.

Many of the same issues with structures and processes occurred across all these funds:

- a lack of clarity of purpose and vision at the start
- insufficient time to design and implement tailored structures and processes from the fund's inception
- challenges in establishing processes which track VfM effectively
- difficulty in designing MEL systems which provide meaningful fund-level information
- no evidence emerged of the funds being focused on poverty as a primary consideration.

As seen in the GCRF synthesis, significant learning-by-doing took place to redress some of these challenges, particularly in fund and research management, with coordination and implementation improving over the life of the funds.

There were other areas where GCRF has performed better than other funds reviewed by ICAI. In other funds, the secondary objective of benefits to the UK was often met much more effectively than the primary aim of poverty reduction in LMICs. GCRF, with its strong performance on equitable partnerships, has gone beyond this question of ODA compliance, and is progressing towards achieving ODA excellence in R&I.

Impact of structures and processes on fairness and equity

Fairness was an aspiration across all programmes, especially equitable partnerships (as was noted in Stage 1a). The Hubs programme offered rich examples of good practice in embedding equitable partnership in a programme. As seen in Stage 1a, in all the programmes there was a prioritisation of equitable partnerships as a goal, with good processes seen in all programmes to support the implementation of these alongside broader fairness considerations (fairness of opportunity, fairness of process, fairness of benefit sharing, see Box 6). The strongest examples of processes and structures to support fairness were seen in the Hubs programme, a point recognised by POs.⁹¹ The Hubs went beyond establishing equitable partnerships with research partners towards ensuring that fairness considerations are woven throughout project design and delivery as a fundamental pathway to development impact (see Box 7).⁹²

Box 6: What are equitable partnerships and research fairness?

GCRF has emphasised the priority for its award-holders to establish “equitable partnerships with researchers and others in resource-poor settings, which are transparent, of mutual respect and deliver mutual benefits”.⁹³ This prioritisation is an area of considerable success for GCRF.

The evaluation examines equitable in partnerships through the slightly broader frame of ‘research fairness’. This builds out from equitable relations between partners, to look at ‘fairness’ as a broader concept encompassing other dimensions, such as who has the opportunity to become a research partner in the first place and how this particular research partnership, together with others, impacts on the context where it takes place. Our frame draws on the three domains of fairness identified in the Research Fairness Initiative (RFI), developed by the Council on Health Research for Development (COHRED).⁹⁴

Table 3: Fairness framework applied in the GCRF Evaluation

Stage	RFI dimension	Key factors to consider in a research partnership
Before research	Fairness of opportunity	Who has a say in designing, planning and implementing the research project? How are the various partner priorities, incentives and practical constraints factored into this?
During research	Fair process	Are there clear and transparent procedures for accountability and for everyone to have a voice?

⁹¹ Fund-wide KIIs.

⁹² Interdisciplinary Hubs Process Evaluation report, 2022.

⁹³ UKRI – Research in a global setting - Guidance Webpage <https://www.ukri.org/about-us/policies-standards-and-data/good-research-resource-hub/research-in-a-global-setting/>

⁹⁴ Research Fairness Initiative <https://rfi.cohred.org>

After research	Fair benefit-sharing	Is there agreement on how the expected benefits of the partnership will be distributed?
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Source: Lavery and Jsselmuiden (2018)

However, not all dimensions of fairness were supported by structures and processes – either due to issues with design or in implementation. For example, all Challenge Leaders were based at UK institutions, and decision-making processes and leadership structures were based in the UK, with little LMIC consultation. However, Challenge Leaders were very active in advocating for equitable partnerships and practical ways to address these gaps and inequities. Evidence showed that over time, the focus within the fund and UKRI became more global and less UK-centric, confidence about working in LMICs grew, and respondents felt that there would now be more openness to including Challenge Leaders from the Global South. In GROW and the Four Nations grant programmes, short timelines for the application and award process disadvantaged institutions setting up new partnerships, as new partners could not be engaged meaningfully, resulting in the overall application process being led by the UK institution.⁹⁵ Where institutions developed applications with pre-existing connections, Southern research partners generally felt that they had played an active role in co-creating the proposal.

Box 7: Examples of effective fairness practices from GROW and the Interdisciplinary Hubs programme

Fairness of opportunity: UKRI played a key role in supporting fairness of opportunity for research partners, which has been largely achieved in both programmes. The funding call highlighted that partners were expected to play a “leading role” in the design of the project. 75% of GROW respondents, and 95% of Hubs survey respondents indicated that they either led or contributed to project design.

For the Hubs programme, UKRI offered a proposal development stage with small travel grants to bring research partners together to co-develop partnerships and proposals, and to support inception activities. This in-person time was critical for building resilient relationships and shared visions that withstood the challenges of the Covid-19 pandemic.

Fairness of process: In both programmes, award-level governance structures aimed to ensure fair representation of all partners. In the Hubs, the Executive body had broad representation of research partners and was the main body for decision making, risk management and dispute resolution. In GROW, the importance of flat management structures and a culture that encourages critical questioning was stressed.

Other helpful processes included setting up meetings at different times to accommodate different time zones (thus ‘rotating’ the discomfort that comes from holding meetings very early in the morning or late at night); awareness of cultural and religious celebrations and national holidays when scheduling meetings; and being mindful of the fact that English is not the first language for many non-UK partners. Promoting joint ownership of

⁹⁵ GROW and Four Nations Process Evaluation reports, 2022; fund-wide KILs.

publications was key; as well as supporting partners to adapt and continue to engage during Covid-19.

Good internal communication played an essential role in fairness of process. Most awards have established active channels of communication within the team, including internal e-bulletins, WhatsApp groups, and social media. Regular surveys or “health checks”, intended to assess how well the awards were doing on partnerships were observed, as well as confidential spaces for partners to share views or voice concerns.

Fairness of benefits: GROW awards proactively ensured fairness in intellectual property rights and put mechanisms and processes in place to avoid the risk of ‘data drain’, including the hiring of a dedicated data specialist, the appointment of a ‘data lead’ within existing staff, or the set-up of ‘data groups’. 88% of survey respondents stated that they felt any intellectual property rights arising from the project are shared equally by the project’s partners, with 35.2% stating that they agreed with that statement and 52.5% stating that they strongly agreed. Data management plans are in place for most projects.

For five of the programmes, financial processes were a barrier to equity. The UK institution was the budget holder in almost all awards, and the reimbursement model of paying overseas partners was often problematic for less-resourced institutions. FLAIR was the exception, with Fellowship awards paid directly to the global south institutions, although the collaboration grants were paid to the UK institution. Despite best attempts to forge an equitable pathway, it is not possible to ignore the fact that UK partners are ultimately the gatekeepers holding the purse, which is in tension with equitable partnership principles. This exacerbated the challenges posed by the standard reimbursement model already discussed.

Survey data appears to confirm that some structures and processes contributed to a lack of fairness. Fairness of process in the signature programmes was rated lower than any other dimension of fairness, which indicates that, despite the positive examples highlighted above, suggests that there remained unresolved issues from the perspective of some respondents.⁹⁶

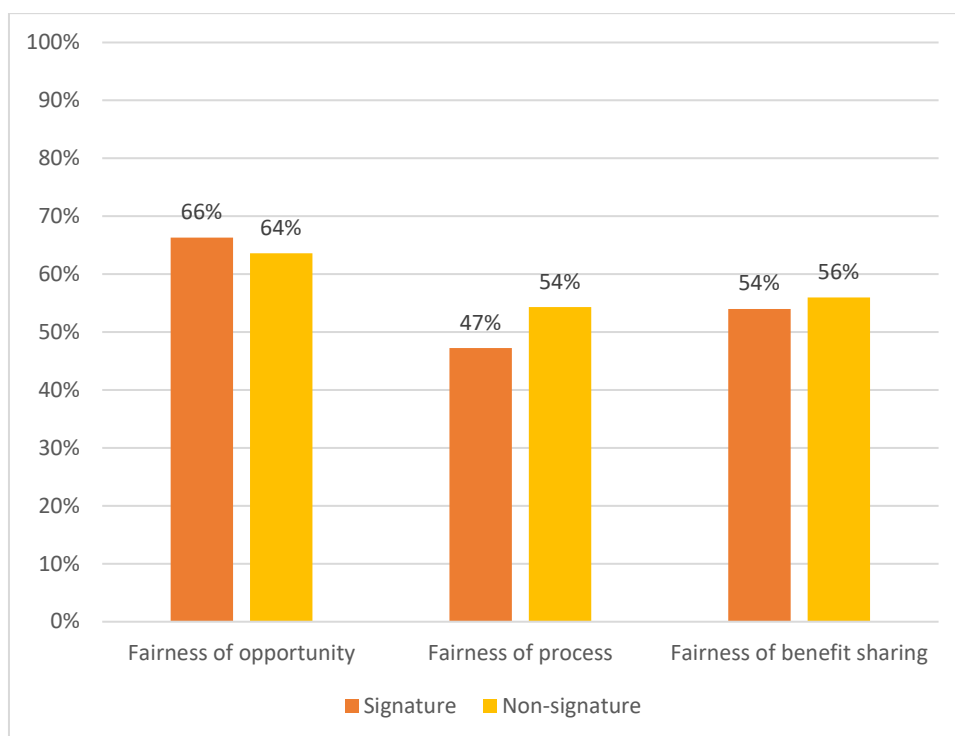
Figure 8: Percentage of survey respondents who agreed or strongly agreed that projects demonstrated fairness of opportunity,⁹⁷ process⁹⁸ and benefit sharing⁹⁹)

⁹⁶ GCRF Survey Report, 2022, Annex 2.

⁹⁷ N=3279

⁹⁸ N=3167

⁹⁹ N=3036



Although processes did evolve towards greater fairness in some instances, the financial constraints discussed contributed to a bias across the fund towards more established, better-resourced overseas partners, as first observed in Stage 1a. Some award holders were able to influence their HEI's internal procurement systems to change, while others were not successful.¹⁰⁰ Added to the administrative burden placed on LMIC partner institutions in meeting UK due diligence and financial requirements, this meant that smaller institutions and organisations with less experience of working with UK or international funders struggled. These financial challenges contributed to a fund-wide bias towards better-resourced, more experienced institutions in middle-income countries which was apparent both in evaluations and interview data.

Evolving consideration of gender equality, social inclusion and poverty

The integration of GESIP in the flagship programmes reflects the evolution observed in Stage 1a – a minimal focus on gender parity in award teams at the outset of the fund, with (over time) a greater integration of GESIP concerns into the design and implementation of GCRF R&I, though this remains as pockets of good processes and structures rather than a consistent approach across the fund. GROW, FLAIR and IPP, which started between 2017 and 2019, saw a minimal emphasis on gender equality concerns in their early phases, mainly focused on gender parity in teams, with minimal analysis of the gender equality impacts of the awards. From 2019, UKRI introduced mandatory Gender Equality Statements alongside the Gender Equality Act Compliance Procedure. From 2020, BEIS has been developing a comprehensive gender strategy to align gender mainstreaming efforts across the fund.¹⁰¹ This phase saw greater guidance and stronger processes from POs, but it was still lacking in technical guidance of how to support GESIP-sensitive R&I in practice.

¹⁰⁰ Four Nations Process Evaluation Report, 2022.

¹⁰¹ Fund-wide KILs.

As a result, progressive change has been driven largely by award holders themselves, with support from Challenge Leaders in some instances.¹⁰² While these efforts are now leading to a more widespread integration of gender equality concerns which have potential to promote gender sensitive R&I, the strategic steers at DP and award levels remain mostly uncoordinated. Evaluations and KIs found that this has led to pockets of good practice rather than a fund-wide, consistent approach to gender equality concerns.

Social inclusion remains a strongly expressed aspiration but is not yet systematically considered and enshrined in processes to ensure effective implementation, while a poverty focus remains largely missing. To support a comprehensive, fund-wide approach, these development fundamentals need to be prioritised at programme level, following the experience of prioritising gender equality in policies and processes, which is starting to show results. Broader issues of social inclusion and poverty are less systematically addressed than gender and remain areas to develop.¹⁰³ The focus remains implicit that by addressing a development or SDG-related challenge, awards are addressing inclusion and poverty issues. While many awards in the signature programmes do target specific marginalised populations, there is, overall, little systematic reflection on how development issues affect different individual and groups in different ways and how this should shape an R&I-for-development process.

GESIP issues require framing and prioritisation from the fund level at BEIS in order to be enshrined by POs in calls, policies, guidance and adapted financial procedures and technical support, as has been achieved with equitable partnerships. GESIP also requires support to implementation if GCRF is to achieve an embedded fund-wide approach on GESIP in line with GCRF's ambitions and impact goals. This point was clearly emphasised by POs in interviews.

Processes to support positioning for use and meaningful engagement with stakeholders

Specific support to positioning awards for use was a strength in all programmes, prioritised from programme management level, though there were some challenges and unevenness in implementation, and sustained efforts are still required to realise the impact potential in awards. Good practices to promote positioning for use were observed across the flagship programmes, which all involved some degree of consultation with local stakeholders in project design. This was a particular strength of the GROW and IPP programmes. IPP, for example, required evidence of demand for the project from local stakeholders, and communication and stakeholder engagement strategies as part of proposals. The Hubs also invested effort in mapping out pathways to impact and engaging stakeholders, including non-academic stakeholders such as non-governmental organisations (NGOs) and international non-governmental organisations (INGOs), national governments, local community representatives and multilaterals. This work was constrained by restrictions on Hubs directing funding to non-academic partners.¹⁰⁴ At the fund level, the Challenge Leaders were intended to mobilise networks to promote take-up and use of GCRF awards by a wide

¹⁰² Challenge Leaders Process Evaluation report, 2022.

¹⁰³ Process evaluations and fund-wide KIs.

¹⁰⁴ Interdisciplinary Hubs Process Evaluation report, 2022.

range of stakeholders. The evaluation confirmed that Challenge Leaders brought with them networks of high-level policy, multilateral and government stakeholders, and leveraged these to support engagement with GCRF research in policy spaces. It is not clear, however, whether these networks were institutionalised beyond individual Challenge Leaders so that POs or institutions were able to continue accessing them.¹⁰⁵

The findings on diverse and inconsistent structures and process across the six programmes reflect a wider challenge around the decentralised way processes have been implemented well after GCRF was established, which has led to critical gaps and missed opportunities as well as important learning, as noted in the Stage 1a Synthesis and Management Review in 2021.¹⁰⁶ This lack of clarity and framing around core processes at the fund level stems from the decentralised implementation model. The Stage 1a evaluation found that GCRF has not fully succeeded in leveraging the benefits of diversity and innovation that a large-scale devolved system brings while providing the necessary strategic direction, prioritisation, coherence and coordination to support GCRF's ambitions (see Stage 1a reports¹⁰⁷). Strategic programme design, administrative and implementation functions were devolved to POs from the start, which, without the necessary coordination, has led to a lack of coherence in processes and their implementation at the fund level. This has subsequently been addressed through the expansion of the fund management function within BEIS and some POs, but with the fund already well established, this team has faced challenges in developing and implementing fund-level processes in the context of an existing and diverse set of processes at the DP level. We see examples of success – such as the introduction of RODA¹⁰⁸ and the introduction of a fund-wide gender policy – but significant effort has been required to make such changes. Earlier recognition that GCRF's ambition for development impact at scale required a step change in ways of working to deliver innovative ODA R&I with impact could have led to the allocation of greater capacity for adaptive programme management within BEIS and POs alongside sufficiently ambitious policies and processes at the fund's inception. Different signals were given relatively early on in GCRF that highlighted the operational implications of its development impact ambitions and ODA financing - for example, the 2017 ICAI findings that pointed to a lack of strategic direction and active portfolio management in GCRF that could constrain the impact potential; the demanding accountabilities for ODA funding that require portfolio management; as well as the GCRF ToC process, where senior managers set out an explicit ambition for 'tangible development impact at SDG scale', with implications for mobilising portfolios of work to achieve this (see Annex 1). Understanding early on the need to adequately resource active, strategic programme and/or portfolio management is a key learning point for any future funds, with a clear opportunity to build on the learning from GCRF.

¹⁰⁵ Challenge Leaders Process Evaluation, 2022.

¹⁰⁶ BEIS, 2022. Global Challenges Research Fund (GCRF): Stage 1a evaluation. Available at:

<https://www.gov.uk/government/publications/global-challenges-research-fund-gcrf-stage-1a-evaluation>

¹⁰⁷ Vogel, I. et al, 2022, 'Stage 1a: Synthesis report of evidence on integration of relevance, fairness, gender, poverty and social inclusion in funded activities', BEIS. <https://www.gov.uk/government/publications/global-challenges-research-fund-gcrf-stage-1a-evaluation>

¹⁰⁸ RODA is BEIS' internal IT reporting system.

Signature programmes' early results and outcomes

This section assesses the extent to which the signature programmes have made early progress towards their desired outcomes and impacts, as represented by the four aggregate outcome areas in the ToC:

- high-quality interdisciplinary research and cross-sectoral innovation provides new insights and knowledge for translation into policies, practices, products and services
- sustainable global R&I partnerships established across geographies and disciplines
- enhanced challenge-oriented capabilities (skills and infrastructure) for R&I established in the UK, partner countries and regions
- stakeholder networks for use and replication established across research, policy, practice, civil society and enterprise in partner countries, internationally and the UK.

The section addresses EQ 4.

Summary of key points:

All the signature investments have faced challenges from the Covid-19 pandemic and the ODA budget reductions in 2021, affecting mainly partnerships and in-country engagement activities which are the drivers of outcomes. Nevertheless, the evaluation finds limited evidence of progress towards early outcomes in line with GCRF's ToC, with some examples of uptake and use already emerging.

The evidence for early outcomes is limited, drawing from the qualitative process evaluations and self-reported in the fund-wide survey, so the findings are indicative rather than conclusive. These outcomes will be followed up for verification in subsequent stages of the evaluation.

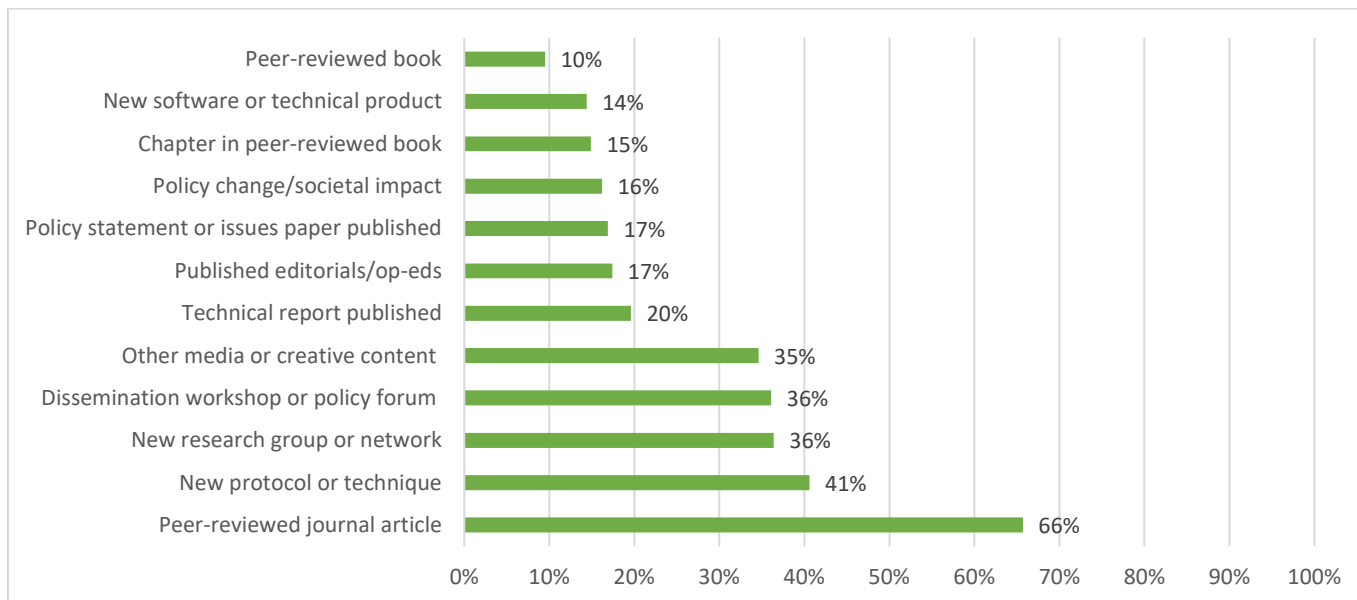
These indicative findings suggest that the signature programmes are following the trajectory of a multi-partner, collaborative and engaged R&I process that involves stakeholders and users from the start. The evidence on early results from the process evaluations and survey suggest that by building-in stakeholder engagement, the signature investments are promoting uptake and use at earlier stages than a conventional research study. The survey analysis highlights an interesting association between non-academic collaboration and outputs and early outcomes in all four of GCRF's outcomes area: partnerships, capacity development, stakeholder engagement and uptake of R&I.

High-quality interdisciplinary research and cross-sectoral innovation provide new insights and knowledge for translation into policies, practices, products and services

The survey results showed a high volume of R&I outputs, reported across the signature investments and across the fund as a whole. These reflect the interdisciplinary and

cross-sectoral focus of GCRF. The most commonly cited of these included: publication of peer-reviewed journal articles; development of new techniques, protocols and ways of working; and media-based or other creative content (see Figure 9 below).

Figure 9: Percentage of survey respondents reporting common outputs from GCRF projects¹⁰⁹



There was emerging evidence from the survey analysis of early translation of R&I outputs into real-world uses, particularly into policy. There was some evidence of awards' products being positioned for use: 36.1% of respondents had disseminated their work through workshops or policy forums and 16.9% had produced policy briefs or statements. The most commonly reported example of translation into use was in policy work, with 16.2% of respondents reporting that their research had led to a policy shift or societal change (although specific examples were not given). These perceptions are notable, given that 2021, the twin challenges posed by the Covid-19 pandemic and the consequent reductions in the ODA budget impacted GCRF awards' ability to engage with R&I users and invest in disseminating and positioning research outputs for use to promote impact. We discuss this in later sections.

Signature programmes emerged clearly from the survey analysis as more likely to produce a diverse range of R&I outputs, and to reach a wide range of different stakeholders. Use by policymakers was particularly strong in comparison to non-signature programmes (see Table 19 below). Signature programmes produced a more comprehensive range of outputs – on average, one more than non-signature programmes. Signature award holders also reported more use by policymakers at international, national and subnational levels, and by multilateral organisations, than non-signature award holders. On average, respondents from signature programmes reported around 0.5 more users of programme information than non-signature programmes. Although research and academic users were most commonly reported across all respondents, non-signature award holders

¹⁰⁹ N=3454

were more likely give this answer. This suggests that in non-signature awards, use was more concentrated in academia, and that signature awards tended to reach a broader audience.

For both signature and non-signature award holders, private sector stakeholders in both the UK and LMICs emerged as the least likely to use GCRF research. This echoes the earlier finding that programmes across GCRF's portfolio have not yet produced high levels of commercial products and/or services, job creation, businesses or spin-off companies. Only one signature investment, UKSA's IPP, was explicitly focused on innovation with the potential for commercial application, and insufficient time has elapsed to see the full extent of uptake across all GCRF programmes.

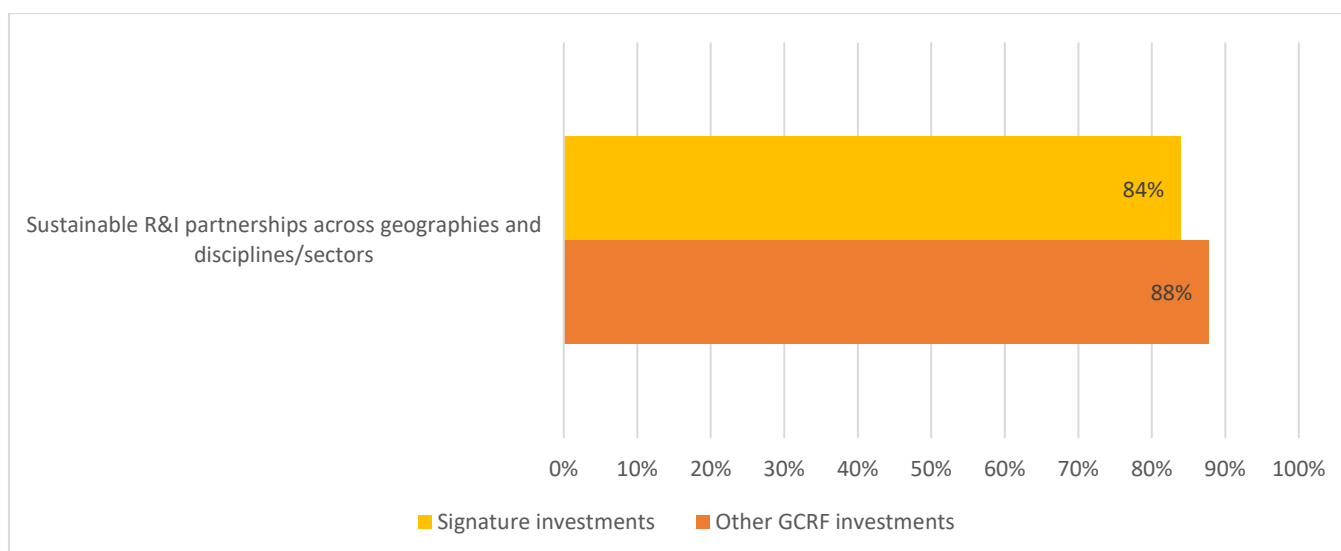
Sustainable global research and innovation partnerships established across geographies and disciplines

There was evidence across the signature programmes that global R&I partnerships were emerging. Four evaluations- GROW, Hubs, Challenge Leaders and Four Nations, highlighted examples of better, more equitable connections than in researchers' previous experiences of collaboration. Evidence from the survey reported positive impacts on R&I partnerships across geographies and disciplines (see Figure 10 below). These results from across the whole fund were reflected in the signature investments; all the process evaluations found some good examples of sustainable partnerships. For example, the Four Nations funding stream was effectively used by institutions to develop new partnerships – through pump priming and networking grants – which interviewees in that evaluation believe are likely to outlast GCRF. Similarly, the Hubs evaluation found that the awards' commitment to building equitable partnerships has developed broad, flexible networks that have proved resilient to the challenges of Covid-19 and budget reductions, with good potential to be sustained into the future. The Four Nations and Challenge Leaders evaluations both found that GCRF encouraged a more equitable approach than in previous experiences of international research partnerships, particularly for institutions with less prior experience of challenge-led development research.¹¹⁰ It is surprising that the survey highlights that non-signature programmes seemed to perform slightly better than the signature ones. It may be that some of the signature programmes were only recently completed or still ongoing, whereas other programmes may have already completed, and respondents were better able to judge the sustainability of partnerships. It is also the case that the ODA funding reductions in 201-22 affected the Hubs programme (the largest signature programme) at the mid-point when many partnerships were just in the process of consolidating. Nevertheless, the survey analysis points to sustainable partnerships as an area of success for GCRF.

Figure 10: Percentage of survey respondents who agree or strongly agree that GCRF projects contributed to sustainable R&I partnerships¹¹¹

¹¹⁰ Challenge Leaders, GROW, Hubs and Four Nations Process Evaluation reports, 2022.

¹¹¹ N=3255



The Covid-19 pandemic, and the consequent restrictions on travel, posed a barrier, particularly to nascent partnerships. More established partnerships were able to pivot fairly easily to remote working methods to continue their collaboration. In some instances the restriction on travel led to more equitable partnerships, since LMIC researchers took on tasks originally planned for UK researchers to complete. Researchers found it harder to establish ways of working and to build relationships with new partners remotely, a barrier which was not fully overcome.¹¹²

The cuts resulting from the reduction in ODA spend in 2021 had some negative impacts on partnerships, in terms of both trust and sustainability. Across signature investments, respondents reported that the spending cuts had caused reputational damage and a loss of trust in the reliability of the UK as a research partner. In addition, where projects were cut short, a lack of resources to invest in positioning for use and handover affected partnerships. Both of these aspects had an impact on the sustainability of the partnerships established.¹¹³

Enhanced challenge-oriented capabilities (skills and infrastructure) for research and innovation established in the UK, partner countries and regions

There was good evidence of improved R&I capabilities at the individual level, with early career researcher (ECR) development a real strength of the signature investments. This is highlighted for GROW, FLAIR and the Four Nations portfolios in particular. For example, the primary beneficiaries of capacity development within the Four Nations funding stream were UK ECRs who, through engagement with pump priming projects, were able to gain hands-on experience and widen their networks in order to position themselves for future funding. Programmes targeting ECRs were set up in different shapes across UK HEIs providing opportunities for collaboration, networking, training, and support for future funding. FLAIR was specifically designed as a fellowship programme for ECRs in LMICs and an emphasis on

¹¹² All process evaluations; fund-wide KIs.

¹¹³ All process evaluations; fund-wide KIs.

ECRs is noted to be the distinctive feature of GROW and an area of unquestionable success for the programme.¹¹⁴

A further key – and likely lasting – impact of GCRF has been in broadening the capability of new and different UK actors to engage in development research. There is clear evidence across the majority of the signature investments that the size, scale and diversity of GCRF funding allowed UK POs and institutions to focus intensively on challenge-oriented research. This led to significant capacity building within UK institutions, enabling wider engagement in interdisciplinary and development research beyond the usual players.¹¹⁵ Many participants in the fund – notably within IPP and the Four Nations portfolios, but with examples across the other signature investments too – had little or no prior experience of conducting research in collaboration with LMICs or to address development needs. This certainly led to many challenges but was also a significant opportunity for learning and capacity development. For example, a key success of the Four Nations funding stream is highlighted as the way in which it has broadened the pool of researchers and institutions, particularly those who have not worked within ODA or who did not see their work as relevant to a development issues. In GROW, an important dimension was capacity development for ‘doing research differently’ (both for UK and Southern partners) when engaging local communities – which also brought up important learning on ethics and ‘do no harm’ risk management for UK institutions new to development R&I.

Evidence from the survey largely echoes this, with very positive perceptions emerging of GCRF’s impact on capabilities, particularly in LMIC focus countries, and on capacity for research management. Figure 11 below demonstrates, however, that GCRF’s contributions to skills and infrastructure in the UK were not perceived so clearly to the award holders who responded to the survey. This may be because evidence for the process evaluations and the synthesis included interviews at DP level and at strategic level within institutions and programmes. The impact on infrastructure may have been more apparent from this perspective than to award holders. This also reinforces the point above that the fund could do more to communicate learning and progress to award holders across programmes.¹¹⁶

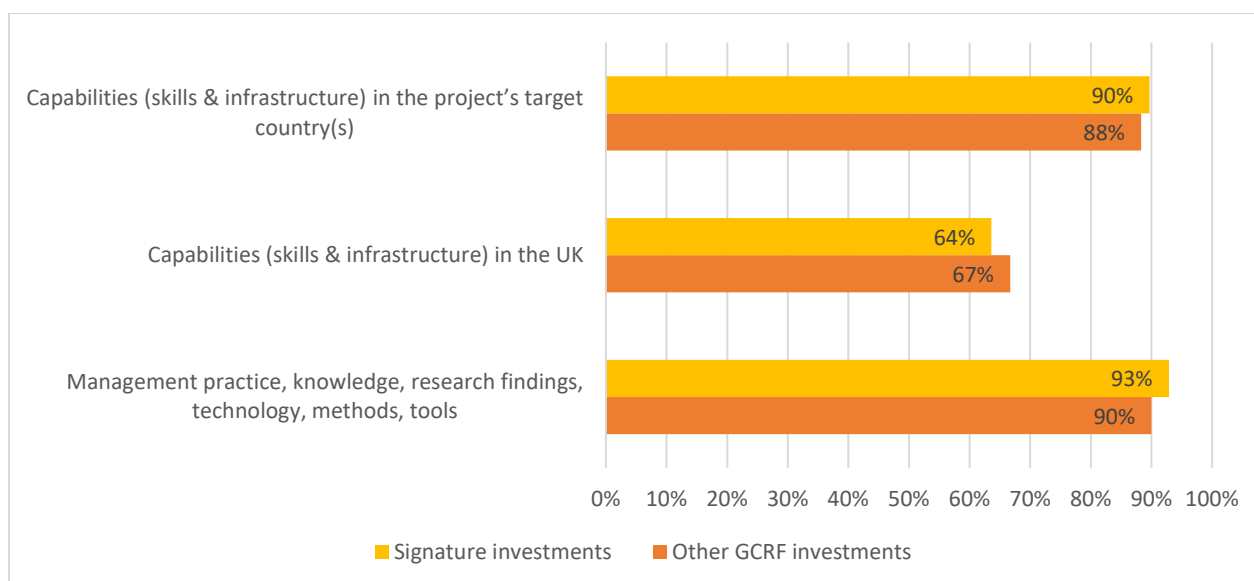
Figure 11: Percentage of survey respondents who agree or strongly agree that GCRF projects contributed to enhanced capabilities¹¹⁷

¹¹⁴ GROW, FLAIR and Four Nations Process Evaluation reports, 2022.

¹¹⁵ All process evaluations; fund-wide KIIs.

¹¹⁶ GCRF Survey Report, 2022, Annex 2.

¹¹⁷ N=2819



However, evidence from some programmes suggests that, at times a focus on individual capacity, together with a lack of understanding or adaptation for contextual issues has constrained the impact of capacity building. This issue relates to the lack of clear framing of capacity building highlighted above. For example, when designing ECR capacity building, interviewees in the GROW evaluation felt that there had been an assumption that the postdoctoral role, integral to UK academia, also exists across LMIC higher education systems.¹¹⁸ Many non-UK partners saw the inclusion of direct funding for a PhD as more suitable to their context. The GROW evaluation found that despite the awards successes in ECR development, opportunities were missed to enhance the institutional environment, and increase impact further as a result. A clearer process for framing capacity building at both the fund and programme level would help ensure a systematic analysis of context at the planning stage. This would have encouraged an institutional and systemic perspective rather than a focus on the individual, as largely happened in the GROW programmes, along with eligibility criteria which reflect the reality of conducting research in other country settings.¹¹⁹

Experience from the FLAIR programme highlights how ECR capacity development relies on long-term funding mechanisms and a focus on the institutional environment as well as the individual, which the 2021-22 ODA funding reductions have negatively impacted. FLAIR provided five year fellowships to African early-career researchers to develop their careers within African institutions. The FLAIR evaluation found that the programme made a significant difference to ECRs navigating their post-doc phase, freeing them up from teaching and administrative duties so that they were able to spend the majority of their time on research activities, and the training, mentoring and networking opportunities provided by the programme. There was evidence also of institutional research environments being improved as a result of hosting a FLAIR fellow, for example through purchase of equipment, and the strengthening of policies in order to meet FLAIR's due diligence requirements such as data management, maternity pay, whistleblowing, corruption, safeguarding, inclusion and equalities. The importance of FLAIR's long-term support for African researchers to develop their careers

¹¹⁸ An academic researcher conducting professional research after the completion of their doctoral studies.

¹¹⁹ GROW Process Evaluation reports, 2022.

within African institutions, however, has been highlighted by the ODA budget reductions in 2021-22, which resulted in existing fellowships being cut from five to two years (i.e. not renewed as originally committed). This has posed a real threat to the translation of promising outputs into longer-term outcomes and impacts, Many FLAIR researchers have been placed in a position of uncertainty, with very few comparable alternative funding sources available. A few award holders interviewed felt they had no alternative but to leave the African country where their fellowship had been based to take up research positions in high-income countries.¹²⁰

The impact of the Covid-19 pandemic on building capabilities was mixed. While some LMIC researchers were able to take on more responsibility and develop new skills, fellowship and exchange programmes were significantly negatively affected. Examples from the Hubs, the Four Nations funding stream and the Challenge Leaders initiative all showed that LMIC researchers took a larger, more active role during the early stages of the pandemic, when UK colleagues could not travel, leading to more equitable development of new skills. Fellowships such as FLAIR were significantly disrupted, however, with delays to equipment delivery and restrictions on fieldwork and in-person exchanges limiting their progress towards objectives, particularly capacity building.¹²¹

Stakeholder networks for use and replication established across research, policy, practice, civil society and enterprise in partner countries, internationally and the UK

There is some early evidence of progress towards strong stakeholder networks, with some good examples among the signature programmes, particularly the Hubs. Survey data confirmed GCRF's contribution to developing stakeholder networks, with respondents perceiving greater impact in LMIC target countries than in the UK (see Figure 12 below). Analysis in the programme evaluations highlights the range of stakeholders engaged at international level, e.g. with multilateral organisations such as the United Nations Development Programme (UNDP) and the United Nations Human Settlements Programme (UN-Habitat), and with national and local governments in LMICs. Engagement of civil society and community-based organisations were a particular feature of the Hubs, although the evaluation found that they have been limited in engaging third sector organisations – critical to local impact pathways – due to UKRI funding restrictions that limited the proportion of funding that could be allocated to non-academic partners.¹²²

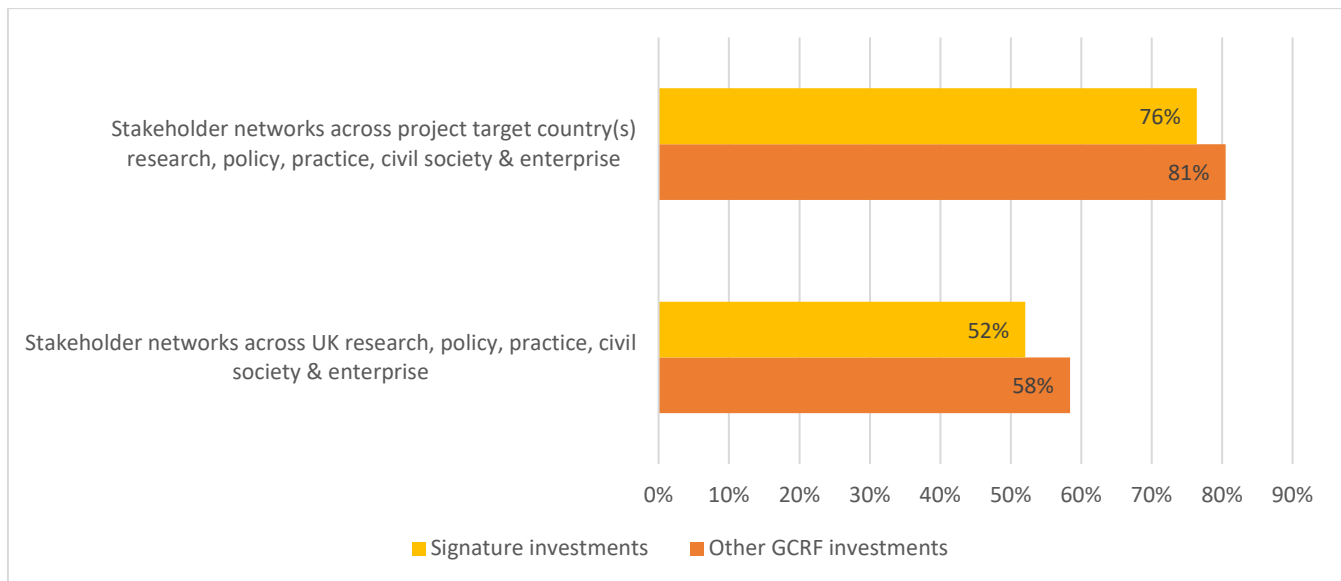
Figure 12: Percentage of survey respondents who agree or strongly agree that GCRF projects contributed to stakeholder networks¹²³

¹²⁰ FLAIR Process Evaluation Report, 2022

¹²¹ Challenge Leaders, FLAIR, Hubs and Four Nations Process Evaluation reports, 2022.

¹²² Interdisciplinary Hubs Process Evaluation report, 2022; GCRF Survey Report, 2022, Annex 2.

¹²³ N=2769



Survey data indicates that networks function similarly to partnerships, with collaboration with three or more non-academic partners positively influencing the likelihood that a network was created or utilised for dissemination and engagement. The Hubs programme did this effectively, engaging not only with institutions within their research consortia but also drawing on and developing external networks to support the design and delivery of research, to set agendas with key decision makers at national and regional level.

Box 8: Networks can be both a tool for dynamic and agile programme implementation and for disseminating research products.

The Hubs intentionally built policy-orientated networks from their inception, ensuring that strategic decision makers and policymakers were involved in the design and delivery of their research. This took different forms: sharing innovative findings; ensuring relevant issues were on their agenda; responding to ad hoc requests for information.

This then allowed some Hubs to leverage their connections within local communities, multilaterals and partners with access to governments to influence both national and regional audiences.¹²⁴

The best examples of effective network building are where it has been prioritised and intentionally built into the design of signature investments. Challenge Leaders, FLAIR, Hubs, IPP and Four Nations all had examples of productive network building, whether for support to the research management process (Four Nations), to provide pathways for community engagement and advocacy (Hubs), or to create connections between researchers (FLAIR). There have been some missed opportunities for cohort building in the GROW and Challenge Leaders investments. This aspect was seen as particularly valuable in the FLAIR

¹²⁴ Interdisciplinary Hubs Process Evaluation report, 2022.

programme and, in some isolated examples, from the Challenge Leaders, and could have been prioritised more consistently across the signature investments.¹²⁵

Discussion – what can be learned from the evidence on outcomes?

The indicative evidence on progress towards early outcomes supports the view that the signature programmes are following the trajectory of a multi-partnered, collaborative and engaged R&I process that involves stakeholders and users from the start, in line with the vision for GCRF. The findings bear out the GCRF ToC assumptions that working in this way means that awards in the flagship programmes are more likely to be promoting uptake and use at earlier stages than a conventional research award (see Annex 1 for full discussion).

A significant finding from the survey analysis is that there is a strong association between collaboration with non-academic actors and the achievement of outputs and early outcomes linked to partnerships, stakeholder engagement and the application of GCRF's R&I outputs. Collaboration with community groups, NGOs and policymakers at all levels show the strongest association. When looking across the fund, this variable is stronger than whether awards are in a signature programme or not. The importance of stakeholder engagement has long been advocated in the research and development field as a critical factor in promoting use and impact – it is an important step forward to be able to provide evidence for this link in a large-scale fund like GCRF.¹²⁶

Opportunities for impact have likely been missed due to the 2021 budget reductions in ODA. Many of the signature investments have not been able to support the later stages of some of their awards or have not been able to offer expected follow-on funding. All the signature investments have faced challenges from the Covid-19 pandemic and the ODA budget reductions in 2021, affecting mainly partnerships and in-country engagement activities which are the drivers of outcomes. This early curtailment of some awards has likely restricted the extent to which the full intended impact of awards can be realised, since plans for dissemination and engagement – which typically strengthen and become a key focus later in an award's life cycle – could not be carried out.¹²⁷ For example, FLAIR fellowships had the funding for renewals cut, thereby reducing the length of FLAIR fellowships to two years rather than the intended five. There are very limited opportunities to seek alternative funding sources to continue this work, and interviews with award holders highlighted widespread concern that cuts to the funding for the renewal of FLAIR would severely damage the likelihood of the intended longer-term outputs of the programme being achieved.

Given that the evidence for early outcomes is limited, these outcomes will be followed up for verification in subsequent stages of the evaluation.

¹²⁵ Challenge Leaders, FLAIR, Hubs, IPP and Four Nations Process Evaluation reports, 2022

¹²⁶ GCRF Survey Report, 2022, Annex 2.

¹²⁷ All process evaluations; fund-wide KIIs.

Key enabling/hindering factors in GCRF

This section first explores some common barriers to achieving outcomes across the fund, then examines effective mitigations. The intended role of the Challenge Leaders as enablers of coherence is also considered.

Summary of key points

Awards have experienced a range of barriers, from administrative processes through to unpredictable factors arising from LMIC contexts, such as natural disasters and political instability. In 2020–22 the Covid-19 pandemic and the related ODA budget reductions in the UK also posed considerable challenges.

The evaluation evidence highlights a clear set of processes that have made a difference in helping signature investments address these barriers and make progress towards their outcomes. While POs' purely administrative processes (financial and risk management) were not initially helpful for navigating these barriers, additional development-oriented processes – such as strategic project frameworks and ToCs, gender and inclusion frameworks and MEL processes – have all acted as enablers in support of outcomes and outputs. This suggests that although it means a longer start-up phase, investing in development-oriented processes that support strategic management of awards is a key enabler of progress.

Positive perceptions of collaboration and fairness are strongly associated with outcomes, as is the collaboration of non-academic partners. Working in multi-country, multi-partner collaborations is challenging, but the findings support the view that more time and resources being dedicated up front to establishing equitable and functional partnerships builds resilience in the face of challenges and lays the foundations for development impact.

Barriers

GCRF structures, particularly for financing and risk management, were not always well adapted to the needs of programmes and partners. Existing financial and risk management systems were often not adapted to LMIC institutions, leaving them to bear more financial risk than was equitable. Non-academic partners (e.g. third sector, community groups) were barred from receiving funding by POs' financial eligibility rules. As their involvement has emerged as a driver of varied outputs and effective partnership building (see discussion of progress towards outcomes above), this is an area that should be carefully considered in future similar funds.¹²⁸ Additionally, in two signature investments, the Hubs and the Four Nations, there was a significant misalignment between the funding profile and programme design. Annual disbursement of Four Nations grants did not align with the three-year strategy required by the funding councils, which undermined their ability to develop medium-term plans in line with

¹²⁸ All process evaluations; fund-wide KIs.

strategies. The Hubs' flat spending profile did not match growing programme requirements, leading to an underspend in the first year.¹²⁹

A disconnect between the higher education landscape in the UK and in LMICs was a barrier to effective research management and to the sustainability of some signature investments. UK institutions who were newer to working with LMIC partners lacked some understanding and experience of LMIC higher education structures. For example, in partner country institutions there was sometimes a lack of research management infrastructure and experience, particularly in terms of financial and risk management, that created longer set-up times than anticipated, especially in the GROW and Hubs programmes (previously discussed).¹³⁰ Additionally, the lack of a post-doctorate researcher culture in many LMICs was a barrier to the sustainability of capability building efforts, most notably in GROW, although FLAIR explicitly aimed to tackle this issue by supporting ECRs and contributing to more supportive research environments.¹³¹

A range of context-specific barriers caused delays and challenges, particularly where projects were operating in low-income countries. Whether related to conflict, political unrest, or natural disasters and shocks, this emerged strongly from survey data and the process evaluations as significant barriers. For example, over half of respondents from both signature and non-signature investments reported a political, governance or security challenge to their projects, with a similar proportion reporting a physical geographic challenge (see Figure 13)¹³²

The challenge of coordinating and working effectively with a range of partner institutions was acknowledged as an obstacle to making quick progress, although the survey findings suggest that investments into making collaborations work has paid off in terms of achieving outputs and outcomes. While building partnerships and networks emerged from the evidence as a driver of positive outputs, working with large consortia was challenging and time consuming.¹³³ Covid travel restrictions exacerbated this issue, especially for new partnerships.

¹²⁹ Four Nations and Interdisciplinary Hubs Process Evaluation reports, 2022.

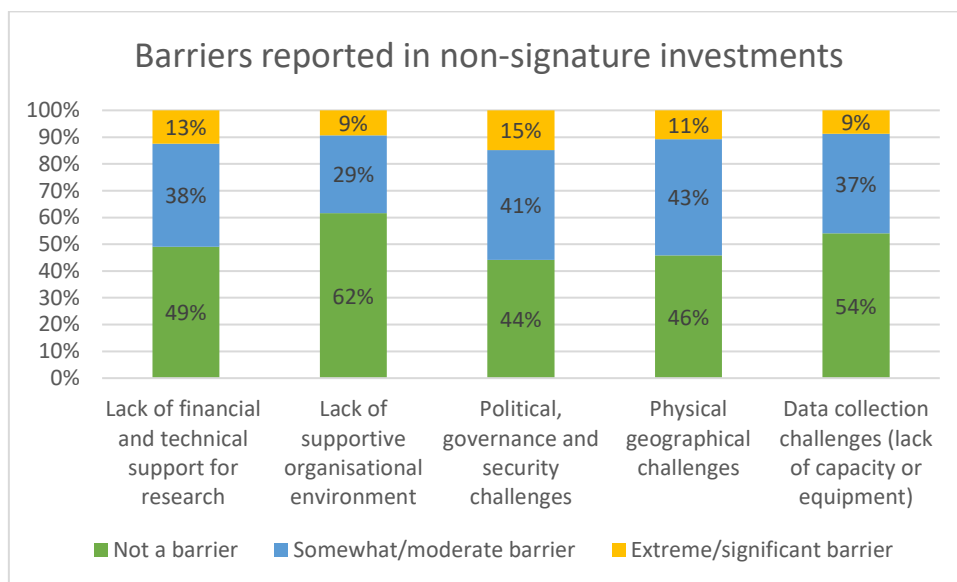
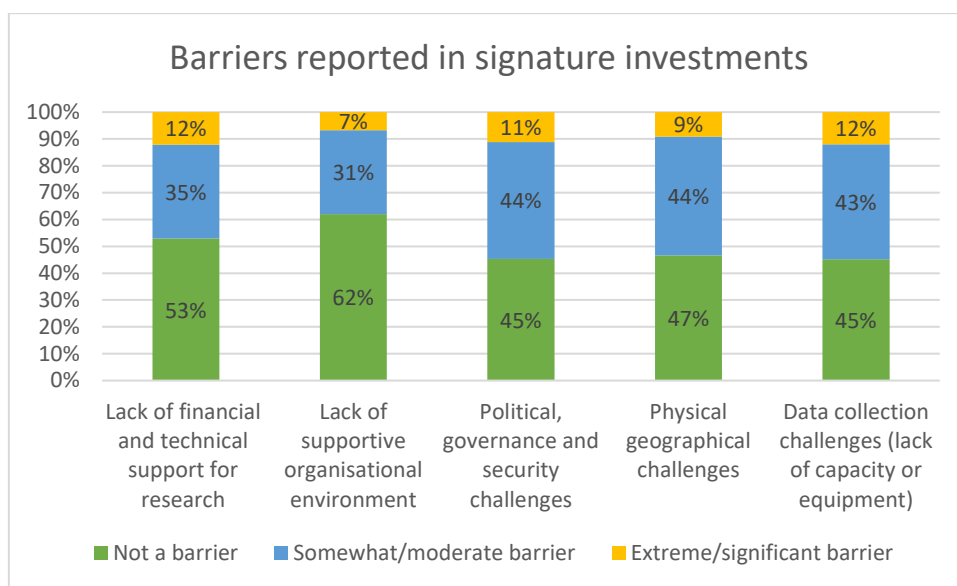
¹³⁰ All process evaluations

¹³¹ FLAIR and GROW Process Evaluation reports, 2022.

¹³² GCRF Survey Report, 2022, Annex 2.

¹³³ GCRF Survey Report, 2022, Annex 2.

Figure 13: Barriers reported by signature and non-signature award holders¹³⁴



The analysis of the survey data highlighted some associations between barriers and other factors (please see the survey report annex for more detailed analysis).

Collaborating with three or more partners increased the likelihood of experiencing barriers, although collaboration also increased the likelihood of having non-academic impact. Across all programmes, projects involving collaboration with three or more non-academic partners were more likely to report experiencing barriers. These projects have a 5.4 percentage point increase in the probability of encountering at least two moderate barriers and, on average, experience 0.21 more barriers than less collaborative projects. As the survey found an average of 1.18 barriers felt per project, this represents a marked increase. This

¹³⁴ N=3130

effect was found across signature and non-signature programmes, with no statistically significant differences in perceptions of barriers between these two groups.

Location of project affected perceptions of barriers, with greater barriers reported in lower-income settings, as might be expected. Projects in low-income countries were 10.9 percentage points more likely to experience barriers – 0.28 more, on average, than projects located only in high-income countries. There was no statistical difference for projects located in other countries.

The survey analysis highlights that the reduction in ODA spending increased the probability of experiencing barriers. Disruption from UK budget cuts increases the probability of suffering at least two barriers by 8.6 percentage points and, on average, increases the number of barriers by 0.29. These rise to a 19 percentage point increase and 0.67 more barriers for those projects where funding ceased altogether, compared to projects with no disruption. This highlights how although the budget reductions alone were likely to pose disruptive, they also increased the probability of other barriers emerging.

Specific barriers were associated with a reduced probability of achieving three or more outcomes, highlighting important areas to address in future programmes. Where respondents had indicated a lack of financial and technical support, and a lack of supportive organisational environment, these barriers were associated with a lower probability of achieving three or more outcomes. Lacking financial and technical support was particularly strongly associated with LMIC respondents.

Enablers

The evaluation evidence highlights a clear set of processes that have made a difference in helping signature investments address these barriers and make progress towards their outcomes.

A common theme among enabling factors was flexibility. Having the ability to adapt programmes and structures to changes and unexpected events was crucial in overcoming barriers, particularly in riskier operating contexts. The scale of signature investments afforded them flexibility and some spare capacity to absorb changes and manage risk effectively. Flexibility in research management, both at programme and project level, was likewise crucial in responding to change and in managing delays. In some instances, it was possible to adapt financial processes to respond to LMIC institutions' needs – offering payment in advance instead of in arrears, for example. Allowing no-cost extensions and facilitating change in the purpose of the research project helped research teams pivot rapidly in response to Covid.¹³⁵

Working with multi-country partners and specialist support networks to develop knowledge of the project contexts and operating environments was another key enabler. There were numerous, varied examples of networks and partnerships providing vital support to implementation. The ARMA network was a key tool for UK research managers in

¹³⁵ All process evaluations; GCRF Survey Report, 2022, Annex 2.

HEIs to administer GCRF projects effectively, particularly the Four Nations allocations.¹³⁶ The IPP team drew on specialist knowledge of the network linked to embassies and consulates in LMICs to develop better political economy analyses of the contexts where they worked. More broadly, the multi-country, multi-partner/actor networks established in the Hubs and GROW awards were a key enabler, creating resilience in the face of challenges by supporting flexibility and adaptation to contextual challenges as well as Covid-19.¹³⁷ This finding on the importance of partnerships and networks is also supported by the survey analysis that found strong associations between measures of collaboration and fairness with outputs and outcomes.

Both of these aspects required sufficient time and resources to establish and maintain, particularly during programme design and inception. Time was needed to understand the existing context and to develop the right systems and programme management processes. Partnerships, networks and consortia also required time for interdisciplinary teams to find a common language and ways of working. Where there was not sufficient time, as in many instances where money had to be disbursed very quickly, programmes and institutions were more likely to return to established partners or to those with more resources and experience.

The survey analysis highlights further insights into specific structures and processes that were enablers of outputs and outcomes. The findings suggest that the investment of time and resources into relationship building and inclusion have been worthwhile as drivers of progress in the awards.¹³⁸

The survey analysis highlights the positive role of collaboration with non-academic partners in enhancing capabilities – for both LMIC and UK respondents. Programmes that involved three or more non-academic stakeholders were significantly more likely to report higher levels of research uptake and enhanced capabilities. Surprisingly, however, signature programmes themselves were less likely to be collaborative in design, with an 8.3 percentage point lower probability of collaboration in design with three or more non-academic partners than other GCRF programmes. This contrasts with the qualitative evidence that highlights the efforts made in the signature investments to involve partners in the design. Perhaps in larger programmes, not all respondents were aware of the full range of activities to involve non-academic partners (the survey respondents were PIs and Co-Is, for the most part academics). Across the fund as a whole, however, where projects had collaborated with at least three non-academic partners there was a strong positive association with use of outputs by policymakers at international, national and sub-national levels. The collaboration of three or more non-academic partners was also positively associated with increased probabilities in achieving improved connections and capabilities for LMIC respondents (4.8–7.4 pp); improved R&I partnerships for UK respondents (8.8 pp); and in the probability of achieving improved R&I partnerships and improved capacity for applying for further funding for all respondents.¹³⁹ This finding applied beyond the signature programmes, as collaboration was a positive factor across the fund.

¹³⁶ Four Nations Process Evaluation report, 2022.

¹³⁷ GROW, IPP and Interdisciplinary Hubs Process Evaluation report, 2022.

¹³⁸ GCRF Survey Report, 2022, Annex 2.

¹³⁹ GCRF Survey Report, 2022, Annex 2.

While signature investments were no more likely than other GCRF awards to produce a wide range of outputs, policymakers were more likely to use research and evidence from signature programmes than from across the fund as a whole. This association between the collaboration of non-academic partners and the positive evidence on use and uptake of research outputs aligns with experience and practice in the research for development field. Involving external stakeholders and potential users in the design of an R&I process is understood to promote uptake and use, because it helps to ensure the work's relevance to context and ensures alignment and responsiveness to stakeholders' needs throughout the duration of the project. The survey analysis brings some evidence to bear this out.¹⁴⁰

Survey analysis on enabling structures and processes

The survey questions relating to EQ 1 asked respondents to report on key structures, processes present in their awards, and the types of support received from POs. It was possible to analyse the associations between these structures and processes, and the likelihood of reporting outputs and outcomes as specified in the survey questionnaire, e.g. outcomes such as improved capabilities and networks, and policy impacts; and outputs such as policy dialogues and new or improved management practices developed (see section on EQ 1 and 4 findings).

As we saw in EQ 1, signature programmes reported higher levels of all the structures and processes included in the questionnaire. In particular, award holders from signature programmes were more likely to report having an oversight committee (55.8%, compared to 28.8% in non-signature programmes), a programme ToC (76%, compared to 61.6%), and a gender and inclusion plan (54.3%, compared to 36.3%) (See figure 6, pg. 43).

The survey also gathered evidence on the types of support provided by POs to award holders. This was particularly pertinent to GCRF since enhanced capabilities in both UK and LMIC research landscapes is one of the key results the fund intends to achieve.

Again, award holders who were part of signature programmes reported receiving higher levels of almost every type of support from POs included in the survey. In particular, they were more likely to report receiving support with dissemination activities (61%, compared to 38.2%), with networking activities (69%, compared to 48.4%) and with programme implementation (55.4%, compared to 35.6%). The exception to this was in reported levels of support to gain a no-cost grant extension. 44.3% of non-signature award holders reported receiving this support, compared to 32.6% of signature award holders.

The survey analysis then considered the impact of having key structures and support processes in place on the probability of achieving three or more positive outputs or outcomes. The strongest impacts appear to have been on the likelihood of awards reporting three or more positive outputs, with the most significant factors outlined below:

¹⁴⁰ GCRF Survey Report, 2022, Annex 2.

- key structures – Strategy framework (7.8% increased likelihood of awards reporting three or more outputs), ToC (7.5%), dissemination plan (9.4%), gender and inclusion plan (5.7%)
- support processes – networking opportunities (7.4%), dissemination of outputs (10.7%), support for additional funding (8.5%), support of no-cost extension (6.3%)
- MEL processes – evaluation took place (11.6% increased likelihood of reporting three or more outputs)
- collaboration – more than three non-academic partners (15.3%).

There were also positive associations between some of these structures and processes and the probability of achieving three or more positive outcomes, though the effect observed was smaller:

- plans in place – Strategy framework (3.8%), defined targets (3.4%)
- support received – support with programme implementation (2.7%), communication and dissemination of outputs (3.6%), support for additional funding (5.5%)
- MEL – evaluation took place (3.0%)
- collaboration – more than three non-academic partners (7.2%).

In both analyses, collaboration with three or more non-academic partners emerged a significant factor associated with the reporting of outcomes and outputs, stronger for outcomes. The positive effect of collaboration with non-academic partners is maintained when controlling for all support and plans within the project.

The survey also analysed the associations between perceptions of fairness and outputs and outcomes. Positive perceptions of fairness in all three respects – opportunity, process and benefits – are positively associated with achieving three or more outcomes and outputs, suggesting that the investment that awards and programmes have made in aiming to establish truly equitable partnerships is highly worthwhile. The analysis showed that ‘fairness of benefit sharing’ is the strongest predictor of achieving three or more outcomes, and the same number of outputs, after controlling for all other variables. This finding applied across the whole fund, beyond the signature investments; once more, collaboration with three or more non-academic partners showed a stronger association with fairness measures than whether an award was in a signature programme or not.

Having gender and inclusion policies in place, developed with expert support, is strongly associated with achieving three or more outputs, with a slightly lower association with three or more outcomes. The association is sufficiently strong to suggest that investing in gender and inclusion policies, along with expert support to implement them, is worthwhile as an enabler of outcomes and outputs.

No structures or processes were negatively associated with the reporting of three or more positive outcomes and outputs, suggesting that none were harmful or overly burdensome to projects. This should be an encouraging finding to future programme designers, indicating that the inclusion of the key structures and processes highlighted above,

at least for medium and large awards, have not proved burdensome but have actually enabled success.

Challenge Leaders were another fund-wide structure that was intended to be a strategic enabler, but the evaluation found that the effects have been mixed, due to ambiguities around their role and remit (see Box 9).

Box 9: Challenge Leaders as enablers: Intention and impact

The Challenge Leaders initiative was introduced in 2017 in response to ICAI criticism that GCRF lacked coherence and strategic direction. Nine Challenge Leaders, working 0.4–0.6 full-time equivalent (FTE), took responsibility for intellectual and strategic leadership of six challenge portfolios.

As a group they were able successfully to promote and facilitate some aspects of equitable partnership and to build on their existing networks to create new connections within their fields.

They were not, however, able to bring the coherence and structure to the GCRF portfolios that was intended. A lack of clarity in defining their role and ways of working, including a lack of formal decision making authority, limited their effectiveness,. There was also a misalignment between the scale and complexity of the research council ecosystem and the capacity of part-time, external leaders to coordinate meaningfully. Even full-time individuals would not have been sufficient to coordinate within a portfolio as large as GCRF's and across so many Partner Organisations. The selection of Challenge Leaders exclusively from Global North institutions further limited their capacity to enable equitable partnerships and networks.

Discussion: What particular features of award and programme processes have made a difference in positioning the signature investments for overcoming barriers and achieving their desired outcomes in different contexts?

The evaluation evidence highlights a clear set of processes that have made a difference in helping signature investments progress towards their outcomes. Barriers primarily arose from working in LMIC contexts, e.g. macro factors, such as insecurity and political instability, or a lack of understanding of LMIC institutions and their contexts. Initially GCRF's purely administrative processes (financial and risk management) were not helpful for navigating these barriers.¹⁴¹ Further findings highlight that additional, development-oriented processes – such as strategic frameworks and ToCs, gender and inclusion frameworks, MEL processes, and expert technical support for implementation of these – have all acted as enablers in support of outcomes and outputs.¹⁴² No structures or processes have been negative or burdensome. As anticipated in GCRF's ToC assumptions, these kinds of structures seem to have helped awards with maintaining a focus on their development goals and strategic

¹⁴¹ All process evaluations; fund-wide KIs.

¹⁴² GCRF Survey Report, 2022, Annex 2.

management towards these, as well as providing evidence to support adaptation and flexibility, which have enabled teams to navigate barriers and overcome them.¹⁴³ This suggests that, although it may take longer, investing in development-oriented strategic as well as administrative processes provides good support for awards to make progress.

The evidence from the survey and evaluations highlights how working in multi-partner collaborations between UK and LMIC partners is challenging but worthwhile. Investing the time and resources to overcome these challenges and establish equitable partnerships between both academic and non-academic collaborators in LMICs establishes pathways for development impact. Collaboration with non-academic partners is strongly associated in the survey analysis as an enabler of outputs and outcomes, and positive perceptions of fairness are a key element of that.¹⁴⁴ The qualitative evidence supports this, with many collaborations and relationships proving resilient even in turbulent times with the pandemic and ODA funding reductions through 2020-22. These findings justify the dedication of time and resources up front to help awards establish collaborations and develop the ways of working to make them equitable. Effective and equitable collaborations are a notable success for GCRF and a key foundation for development impact.

5. Conclusions, lessons and recommendations

Summary of key points:

Conclusions:

Overall, the signature programmes did develop good processes which aligned with ODA challenge-led R&I, evolving from weaker start-up positions that were more administratively focused than impact-oriented. Programme-level processes became stronger at the commissioning stage, with weaker processes through implementation, although in some programmes (e.g. FLAIR and Hubs) support was observed for portfolio-level coherence, cohort building and coordination to maintain a focus on the drivers of development impact. Staff resources for programme management at the DP level were constrained from the start of the signature investments, due to BEIS' initial parameters on operating costs, although these became more flexible as part of the evolution towards improved, impact-oriented management processes at all levels of the fund,

A key strength in all the programmes has been capacity building, among both UK and LMIC award holders, and the establishment of durable international partnerships. Nevertheless, budget reductions in 2021 have put pressure on partnerships, creating negative perceptions of the UK and constraining awards' progress

¹⁴³ Updated ToC, Annex 1.

¹⁴⁴ GCRF Survey Report, 2022, Annex 2.

towards achieving their development outcomes. This was observed particularly acutely in the Hubs and FLAIR programmes, which were only part-way through their terms.

The evidence points to a range of key structures and processes that are indicated as enablers of outputs and outcomes, the precursors of development impact.

These included, among others, adaptive, proactive management at the programme-level of the fund, and collaboration with academic and non-academic partners. None of the structures and processes were observed to have a negative effect, indicating that they were not burdensome but in fact enabled outputs and outcomes in awards.

Fund-wide processes to enhance the performance on MEL, GESIP and VfM are key areas for improvement across the signature investments and across the fund more widely. The synthesis highlights the importance of framing and prioritising key processes at the fund level for them to cascade effectively through GCRF's devolved architecture and for them to feed back into programme management.

The evaluation of the signature investments highlights how, in a fund as large-scale as GCRF, strengthening processes at the programmatic level – which can be thought of as the 'mid-level' from a fund perspective - has the potential to strengthen ODA R&I excellence. Earlier recognition of the need for a step change in ways of working to deliver innovative ODA R&I with impact could have led to the allocation of additional capacity and resources for adaptive programme management within BEIS and POs, alongside sufficiently ambitious policies and processes at the fund's inception. This is a key learning point for any future funds, with a clear opportunity to build on the learning from GCRF.

Summary lessons for future funds (detailed recommendations are also provided at the end of the section):

Lesson 1: Delivering impactful, excellent ODA R&I requires a clear strategic vision set at the fund level, and processes to ensure a focus on ODA R&I excellence in programmes and awards throughout their life cycle. Impact drivers such as gender and inclusion, fairness in partnerships, and stakeholder networks should be prioritised in fund-level policies and standards, cascaded to POs and awards for integration into programme and award strategies. The time needed to implement these well should be factored in, and consistent standard of implementation could be driven by a fund-wide learning and improvement process.

Lesson 2: The evaluation evidence from the signature investments highlights how, in a large-scale ODA R&I fund like GCRF, a system of cascading structures and processes is needed to ensure the prioritisation of the development impact drivers, whilst providing flexibility to allow innovation and diversity in how these are met within programmes and awards. A learning and feedback process is also necessary to ensure that learning from diversity is shared back around to all levels, and effective processes are taken up consistently.

Lesson 3: Prioritise and frame mutual capacity development of LMIC and UK individuals and institutions – academic, policy and practice – , with an emphasis on fair and equitable partnerships, as an important pathway to impact.

Lesson 4: Define and frame VfM and MEL at the fund level, as core processes for adaptive management, to allow a coordinated approach to improvement for greater effectiveness across funds with devolved architectures. This would allow a more consistent tracking of impacts to address how research might be mobilised and innovations delivered for development impact.

Lesson 5: Allow enough time to maximise effectiveness, fairness and VfM. Funding profiles should be tailored to reflect different phases of an ODA R&I project, avoiding flat spend trajectories that can lead to underspends in the set-up phases.

Conclusions

Overall, the evaluation finds that the signature programmes did develop good processes which aligned with ODA challenge-led R&I, evolving from weaker start-up positions that were more administratively focused than impact-oriented. These processes have helped to build resilience to the challenges of what has been a turbulent period, with Covid-19 and related ODA budget reductions in 2020–21, with many strong practices to build on. In all six programmes, systems are strongest at the commissioning stage, with a good framing of challenges by POs and with strong processes to assess and refine bids. ODA considerations are typically well incorporated. Although post-award implementation processes and systems have not always been as strong, we see a significant innovation at the award level, especially in establishing and sustaining processes for equitable partnerships and stakeholder engagement. This has often emerged in the absence of stronger guidance from POs at the post-award stage.

The evidence points to key structures and processes that are indicated as enablers of outputs and outcomes, the precursors of development impact, including: strategic frameworks and ToCs in place among awards and programmes; collaboration with academic and non-academic partners through fair and equitable partnerships; gender and inclusion plans within awards; communications and dissemination plans; and MEL processes in place in awards.

- adaptive, proactive management at the programme, ‘mid-level’, of the fund;
- coherence, coordination and cohort-building within programme portfolios;
- defining and tracking capacity development at the programme level;
- MEL processes that also incorporate a framing and tracking of VfM.
- provision of networking opportunities;
- support for communications and dissemination; and,

- support to mobilise additional funding.

At the award level, the following were identified as enabling structures and processes:

- strategic frameworks and ToCs in place within awards;
- collaboration with academic and non-academic partners through fair and equitable partnerships;
- gender and inclusion plans within awards;
- communications and dissemination plans; and
- MEL processes in place in awards.

None of the structures and processes were observed to have a negative effect, indicating that they were not burdensome but in fact enabled outputs and outcomes in awards.

A key strength of the signature investments has been in capacity building. Capacities for partnered ODA research with impact have been built in the UK as much as in LMICs, including increased involvement of Global South stakeholders in shaping calls and proposals. Another key strength is the quality of the partnerships and networks developed through GCRF, which have built resilience to shocks and have positioned awards for impact. Despite these strengths, capacity building is not clearly defined at any level. This means that capacity development has not been fully mobilised as a pathway towards impact. Stage 1a recommended that capacity building should have its own standard, with an established framework and objectives, and this should remain a priority in future.

There is evidence of progress towards early outcomes in line with GCRF's ToC, with some examples of uptake and use already emerging. These findings suggest that the signature programmes are performing in line with the ToC assumptions; multi-partnered, collaborative and impact-oriented R&I is more likely to promote uptake and use at earlier stages than a conventional research project. The survey analysis highlights an important association between non-academic collaboration and outputs and early outcomes in all four of GCRF's outcomes area: partnerships, capacity development, stakeholder engagement and uptake of R&I.

There is a clear consensus across all process evaluations, and across all UK and LMIC stakeholder groups, that GCRF's signature investments offered unique funding opportunities in terms of their ambition, scale and promotion of interdisciplinary and intersectoral work on development challenges. GCRF's programmes are recognised as unique in the scale and scope of the funding available, dedicated to challenge-based, development-focused R&I. This was significant both in enabling a wide range and scope of engagement across LMIC contexts and thematic areas and in the extent to which the programmes were able to deliver a step change in engagement with development issues in the UK R&I community. It enabled non-traditional players in UK R&I to enter the development research landscape, and provided an opportunity to build experience, networks and skills to conduct research in this new context. This is a clear, novel added value of GCRF's signature programmes and lays the groundwork for any future ODA R&I investment of this type by BEIS.

At the UK level, the 2021 ODA budget reductions have had negative implications for the UK's reputation and soft power across countries affected – a common theme across the programme evaluations was the perception that trust in the UK as a partner for R&I activities has been somewhat eroded as a result of the abrupt budget reductions. The ODA reductions have caused significant damage to partnerships, although teams made significant efforts to protect their LMIC partners. This throws into relief how important partnerships are for the delivery of the fund's ambitions, and how unique GCRF funding is in the international R&I domain. Those partnerships were not able to be supported in another way and, with the Newton Fund also now discontinued, there are limited avenues to support international collaboration and co-funding with the UK for researchers in many LMIC countries. The uncertainty created by the 2020-21 ODA budget reductions for LMIC and UK partnerships has had a notable negative impact.

Beyond these wider implications, the funding reductions will also have a significant impact on the ability of GCRF to deliver on its own aims, despite the continuation of funding until 2025. GCRF was established with a bold vision and aims, and this is reinforced by the level of ambition set out in the ToC. There is a risk that the significant tapering off of funding will prevent signature programmes awards from fully pursuing pathways to impact. This has implications for achieving the longer-term impacts outlined in the ToC. The extent of this impact – and the extent to which the aims of GCRF have been able to be realised in this context – will be explored further in the next phase of the evaluation.

Processes to enhance fund-wide MEL, VfM tracking and a consistent focus on GESIP and are key areas for improvement across the signature investments. The analysis highlights the importance of framing and prioritising key processes at the fund level for them to cascade effectively through GCRF's devolved architecture and for them to feed back into programme management. At fund level, processes to monitor progress, learn during implementation and support impact are not strong enough, despite some clear examples of good practice. As we found in Stage 1a, GCRF's decentralised delivery architecture can offer benefits in terms of allowing very diverse POs and award holders to innovate in terms of R&I processes and interdisciplinary solutions to development challenges. However, these benefits remain isolated in the absence of fund-wide processes to share lessons and ensure that good practices feed back into improved management (a key assumption in GCRF's ToC).

While the evaluation noted improvements in data collection and flows during programme implementation, a continued lack of framing and prioritisation of GESIP from the BEIS level has led to these issues being inconsistently addressed at DP level. Similarly, VfM – which has started to be addressed more fully – has not been cascaded down through the fund, due to a lack of early definition, prioritisation and guidance. Across these issues and other practical challenges – such as issues around financial due diligence – improvements have arisen through learning-by-doing through implementation, mainly by awards themselves but also by POs in some cases. This highlights the missed opportunity in sharing this learning more widely to support more consistent improvements across the whole fund.

Limited time at the start and end of awards – and the fund more widely – has led to missed opportunities. The lack of an extended, carefully planned inception phase made it harder to engage hard-to-reach groups and build relationships beyond the ‘usual suspects’. Funding reductions have affected programme and award activities, cutting activities short and constraining their capacity to achieve their full impact. There is good evidence from the signature investments that sufficient time dedicated to these aspects can offer significant advantages, notably in the strong association between non-academic collaboration in awards and the achievement of GCRF’s outputs and outcomes. There may also be fairness implications, since when time is restricted, more difficult to access groups – both research collaborators and potential research users – are those that are most likely to be missed. In this sense, GCRF is in line with other ODA funds reviewed by ICAI, showing the same weaknesses in terms of truncated inception periods which have led to gaps in processes for strategic management and partnership building (see Box 5, pg 54). GCRF has, nevertheless, demonstrated how adaptive learning and flexibility has led to improved practice, at least within individual POs.

For POs, programme management resourcing has been a challenge, limiting their abilities to deliver strategic as well as administrative portfolio management. GCRF’s signature investments carried significant strategic management requirements: large-scale awards, delivered through sizeable, complicated international consortia, often across multiple LMICs, with the potential for multiple risks. Operating costs were initially pegged by BEIS at approximately 5% of the programme budget, but this proved insufficient for programme management staff to comfortably combine the administrative oversight with the strategic management needed to achieve ambitious development impacts. The evidence highlights that BEIS showed greater flexibility on operating costs as experience grew and the requirements for hands-on, strategic programme management became clearer, with positive effects arising from the impact-oriented processes that were implemented.

Recommendations for GCRF’s remaining term

1. Focus on impact for the remaining term to ensure that GCRF’s results create the foundations for future development progress

A risk with the fund being wound down is that the existing investments do not have the resources or motivation to deliver on their intended impacts. The impacts of GCRF, however, are important because they lay the foundations for future development progress, so maintaining as much momentum as possible towards impact is critical. Where possible, POs should strive to maintain and incentivise a focus on achieving the development results that are possible with the remaining time and resources available, through the following approaches:

- Maintain a consistent narrative and active communication to award holders that the outcomes and impacts of their GCRF awards are still valued and expected, especially as they create the foundation for future development progress and future ODA R&I work.

- Maintain connections and networks between cohorts to encourage collaboration and coordination for greater impact, for example, between awards working in the same geographies (identified as an enabler of outcomes).
- Continue to provide support and advice for the dissemination and communication of non-academic R&I products and outputs, positioned for use by R&I users in LMICs (also identified as an enabler).
- Incentivise the capture and reporting of outcomes and impacts, if possible, working through cohorts to strengthen collective motivation and showcase successes.
- Incentivise the capture and sharing of lessons amongst GCRF cohorts on how to integrate effective processes and structures that strengthen the enablers of development impact and promote ODA R&I excellence i.e. fair and equitable collaboration with academic and non-academic partners; integrating gender and inclusion into R&I projects; effective stakeholder engagement and communications; designing enabling MEL processes.

2. Nurture and strengthen existing partnerships and networks to mitigate the negative impacts of the ODA reductions and restore the UK's reputation as a favoured partner for international R&I collaboration

Existing partnerships are also critical to future ODA R&I investments, as these will likely build significantly on the partnerships, networks, capacities and infrastructure developed through GCRF. Both POs and award holders should direct efforts towards maintaining and strengthening the relationships, partnerships and networks developed through the implementation of GCRF, through for example:

- For POs, emphasising the importance of partners taking on lead authorship in academic publications.
- For award holders, collaborating with partners to capture and report outcomes and impacts, with partners taking leadership roles in these processes.
- For both POs and award holders – seeking out opportunities for face-to-face meetings with partners now that travel is permitted post-pandemic – face-to-face interactions were identified as important for strengthening relationships.

Where this is possible, it may help to mitigate the risk that any future investment faces from any continuing reputational damage arising from funding reductions.

Lessons and recommendations for future funds

Lessons identified from this synthesis builds on the experience of the signature investments. They also build on the insights and recommendations identified in Stage 1a of the evaluation, many of which still apply.

Lesson 1: Delivering impactful, excellent ODA R&I requires a clear strategic vision set at the fund level, and processes to ensure a focus on ODA R&I excellence in

programmes and awards throughout their life cycle. Impact drivers such as gender and inclusion, fairness in partnerships, and stakeholder networks should be prioritised in fund-level policies and standards, cascaded to POs and awards for integration into programme and award strategies. The time needed to implement these well should be factored in, and consistent standard of implementation could be driven by a fund-wide learning and improvement process.

Recommendation 1 (BEIS and POs): Work together to develop ODA R&I excellence standards for POs, focusing on the impact drivers, to provide a fund-level framework to guide POs and award holders. The process for developing these should involve pooling the collective experience gained through GCRF at all levels of the fund, as well as drawing on expertise in the Global South and from the development sector. The ODA R&I standards development process should be supported by ongoing learning and improvement processes, including training, resources and time provided for upskilling DP managers to implement these.

- Setting up a challenge-led fund involves identifying clear standards and processes – at the fund level. These serve to guide fund, portfolio and programme-level operations and set out how the strategic vision will be achieved. This was done well in GCRF in the framing and prioritisation of equitable partnerships in clear policies, which has been a focus for collective learning and improvement and has successfully cascaded down through the levels of the fund. This needs to be applied to all aspects of the strategic vision, especially the development standards identified as enablers in the evaluation.
- It is crucial to build in time to develop a clear set of policies and practices to guide fund and programme-level operations and to establish the right administrative and management functions. There should be clear processes and implementation plans setting out how the ambitious vision can be achieved, including a set of development considerations and standards to work within and a focus on fairness, gender, inclusion and poverty reduction. This should be in place before any awards are made.

Lesson 2: The evaluation evidence from the signature investments highlights how, in a large-scale ODA R&I fund like GCRF, a system of cascading structures and processes is needed to ensure the prioritisation of the development impact drivers, whilst providing flexibility to allow innovation and diversity in how these are met within programmes and awards. A learning and feedback process is also necessary to ensure that learning from diversity is shared back around to all levels, and effective processes are taken up consistently.

Recommendation 2 (BEIS and POs): Coordinate the development of a cascading system of flexible policies and structures for different levels of the fund to meet ODI R&I excellence standards, and enable adaptive programme management to drive a consistent focus on ODA R&I excellence.

- Building on the experience of the signature investments, future OD R&I funds aiming for development impact should design a system of policies and processes that allow priorities and standards to be set at the fund level, with flexibility in how these are met by programmes and awards. There is valuable learning from GCRF in how equitable partnerships were prioritised at the fund level as a framework but not prescribed, with collective learning supporting the emergence of good practices.
- For example, the fund-level is where policies and standards (in concert with Recommendation 1) can set out priorities and expectations, not as a stifler of creativity but as a framework within which POs and managers of specific portfolios can operate. Then, at the DP and programme level, strategic frameworks that derive from these can support proactive, adaptive management of portfolios of awards, providing their awards with clear directions on the prioritisation of impact drivers, coherence and coordination that has proved an enabler of outputs and outcomes in the GCRF signature programmes. At the award level, teams can implement structures and processes that will enable their project to meet the DP priorities to a consistent and effective standard. This system needs to be supported by a fund wide learning and improvement process to leverage the gains from innovation in and diversity of approaches.
- To ensure this system of enabling structures and processes is shaped effectively, expertise in development considerations and, particularly, stakeholders from LMICs should be brought into this process. In addition, DP managers and others involved at the programme level require the time, resources and, where needed, learning support in ODA R&I management to ensure they have the knowledge, skills and support to integrate a focus on development impact.

Lesson 3: Prioritise and frame mutual capacity development of LMIC and UK individuals and institutions – academic, policy and practice – , with an emphasis on fair and equitable partnerships, as an important pathway to impact.

Recommendation (for BEIS and POs): Define and track capacity development for individuals, organisations and institutions at the fund level, building on learning from previous ODA funds, including the importance of fair and equitable partnerships for capacity development.

- The evidence from the signature investments highlights that supporting mutual capacity of both LMIC and UK individuals and institutions – academic, policy and practice – can be a powerful pathway to impact because it establishes new capabilities and relationships to support the application of R&I in an LMIC context. However, capacity development should be framed and prioritised at the fund management level, as one of the ODA R&I excellence standards recommended in response to Lesson 1
- Capacity building should be clearly defined at the outset of any future fund. It should address three levels of capacity – individual, organisational and institutional, and should be supported by processes to track progress and promote learning.

- To ensure this is understood and consistently implemented, capacity building should be framed and prioritised at the fund management level. There needs to be sufficient flexibility to enable POs and award holders to come together to further develop capacity strengthening as a pathway to impact. This catalysed a lot of innovation and strategic learning among POs and award holders about good practice and has emerged as a key strength of GCRF.
- Setting out a clear focus and targets for capacity building will help future funds deliver on this consistently and effectively, particularly since the potential avenues for capacity building are extremely diverse and multifaceted, with their own complexities and challenges. This will help future ODA R&I commissioners and applicants to more effectively negotiate possible trade-offs between research excellence, capacity enhancement and impact. In concert with recommendation 1, this can enable a more nuanced approach that takes into account the contextual factors and challenges that might inhibit capacity building or prevent these efforts from achieving their full potential.

Lesson 4: Define and frame VfM and MEL at the fund level, as core processes for adaptive management, to allow a coordinated approach to improvement for greater effectiveness across funds with devolved architectures. This would allow a more consistent tracking of impacts to address how research might be mobilised and innovations delivered for development impact.

Recommendation 4 (BEIS and POs): Define and frame VfM and MEL at the fund level, with a clear set of core dimensions to be tracked and reported on and with processes to promote coordination and learning on VfM across the different levels of the fund.

- The evidence from GCRF's signature investments highlights a number of important gaps and lack of coordination at all levels of the fund that have led to a proliferation of approaches to VfM, with consequent limits on the ability to track VfM in a consistent way within the signature investments (see page 54 for the full discussion). VfM tracking requires some common frameworks, a shared understanding of the relevant VfM dimensions and some coordination of monitoring approaches so that comparisons and judgements can be made within and across programme portfolios. While flexibility is important to allow for diversity of programmes and projects, the evaluation has found that, at the fund level, VfM requirements were not clearly framed at the start of the fund, and so agreed parameters for VfM were not cascaded to the PO and award level.
- Therefore, in future funds MEL and VfM should be defined and prioritised at the fund level, with specific guidance and minimum standards for implementation. In a large-scale R&I fund, VfM is not a clear-cut approach but needs ongoing learning and evolution, supported by effective data gathering, tracking and reporting processes. Similarly, MEL should go beyond reporting financial data and management information to encompass tracking of outcomes and a learning strategy to ensure that lessons and innovations are captured and shared across the fund.

- In the short run, VfM would be most quickly strengthened by focusing on efficiency (how resources are used to create outputs that are relevant and fit for purpose) and on bearing down on costs. These are more directly in the control of fund managers and DP programme managers and should be prioritised. This would require more systematic documenting of cost areas, mapping of acceptable cost ratios for awards of different scales, delivery mechanisms and durations, and developing benchmarks to enable managers to manage costs. These additional processes may require some additional initial investment, but once the data points are established, tracking these would go a long way towards supporting a data-driven and analytical approach to VfM.
- For MEL, more structured MEL practices would yield benefits not only in identifying biases and gaps in portfolios but also in improving targeting and processes in subsequent rounds of commissioning. This should include a learning strategy that is resourced for capturing and sharing learning across BEIS and the POs to learn from innovations and drive ODA research excellence across the fund. MEL processes would also help award holders to understand the impact of the project and would provide opportunities to strengthen their relationship with stakeholders in the country through communication and feedback.

Lesson 5: Allow enough time to maximise effectiveness, fairness and VfM. Funding profiles should be tailored to reflect different phases of an ODA R&I project, avoiding flat spend trajectories that can lead to underspends in the set-up phases.

Recommendation 5 (for BEIS and POs): Build in time at the start and the end of the fund, programmes and awards to maximise effectiveness, fairness and VfM and to allow POs time to develop processes and plans to implement fund-level strategies.

- Many of the observed challenges in GCRF, and in the other ODA funds reviewed by ICAI, stem at least partly from time limitations – at the beginning or the end of individual awards or the fund itself. Any future fund should learn from these experiences and build in more time for adequate planning and impact realisation at the fund, programme and award level.
- In future funds, this could be addressed with an inception phase at the programme/award level (for scoping, co-design, Southern engagement, network creation and setting up necessary governance, management and financial structures). Sufficient time should also be embedded at the end of the fund/programme for impact activities.
- At the award level, an explicit inception phase should allow sufficient time for network development, collaboration of LMIC partners in the design of awards – highlighted in our survey analysis as crucial to delivering outputs and outcomes – and establishment of appropriate financial and governance mechanisms.
- The inception phase could be funded through initial seedcorn funding, specific funds for relationship development, further investment through QR funding or extended timelines

for proposal submission. This will ensure there are opportunities to engage with harder-to-reach partners and/or lower-income regions, as well as maximising the chances of effective project design.

- Funding profiles should reflect this project phasing, with dedicated funds for partnership in inception matched by ring-fenced time and budget for the vital work of engagement and dissemination of findings, enabling researchers to make best efforts to position their work for impact.

GCRF ToC update and future stages of the evaluation

The next stages of the evaluation will see an update of the GCRF ToC to reflect the insights and evidence of the first two years of the evaluation. March 2023 will see the report on ODA R&I quality, positioning for use and early stage results and outcomes in GCRF. From April 2023, we will embark on a series of case studies on GCRF's outcomes and legacy in LMICs as well as a study of the benefits that have accrued to the UK R&I community through involvement in GCRF.

References

BEIS, 2017. 'Global Challenges Research Fund (GCRF): How the Fund Works'. Available at: <https://www.gov.uk/government/publications/global-challenges-research-fund/global-challenges-research-fund-gcrf-how-the-fund-works#:~:text=GCRF%20forms%20part%20of%20the,the%20poorest%20people%20and%20countries>

BEIS, 2017. UK Strategy for the Global Challenges Research Fund (GCRF). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/623825/global-challenges-research-fund-gcrf-strategy.pdf

BEIS, 2019. GCRF Foundation Stage Evaluation Report, 2018. Available at: <https://www.gov.uk/government/publications/global-challenges-research-fund-gcrf-foundation-stage-evaluation>

BEIS, 2022. Global Challenges Research Fund (GCRF): Stage 1a evaluation. Available at: <https://www.gov.uk/government/publications/global-challenges-research-fund-gcrf-stage-1a-evaluation>

Braun V. and Clarke V., 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology* 3:2, 77–101. Available at: [10.1191/1478088706qp063oa](https://doi.org/10.1191/1478088706qp063oa)

Dickson, A., 2020. 'Spending Review: Reducing the 0.7% aid commitment'. Available at: <https://commonslibrary.parliament.uk/spending-review-reducing-the-aid-commitment/>

FCDO, 2021. The UK Government's Strategy for International Development. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1075328/uk-governments-strategy-international-development.pdf

Gale, N.K., Heath, G., Cameron, E. et al., 2013. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Medical Research Methodology* 13:117. Available at: <https://doi.org/10.1186/1471-2288-13-117>

HM Government, 2021. Global Britain in a competitive age. The Integrated Review of Security, Defence, Development and Foreign Policy. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/975077/Global_Britain_in_a_Competitive_Age_the_Integrated_Review_of_Security_Defence_Development_and_Foreign_Policy.pdf

Itad, 2021. GCRF Evaluation Stage 1b Scoping Report.

Murray, B., Izzi, V., Roberts, E., et al., 2021. ESRC – FCDO Joint Fund for Poverty Alleviation Research Programme – Phase 3 Evaluation Final Report. Available at: <https://www.ukri.org/wp-content/uploads/2022/08/ESRC-080822-JointFundPovertyAlleviationResearchProgrammePhaseThreeEvaluation-FinalReport.pdf>

UKRI, 2021. 'UKRI Official Development Assistance letter 11 March 2021'. Available at: <https://www.ukri.org/our-work/ukri-oda-letter-11-march-2021/>

Annexes

Annex 1: Updated GCRF ToC

See separate file.

Annex 2: Evaluation Matrix

EQ	Criteria	Data collection methods in process evaluations	Data analysis approach
<p>EQ 1. To what extent are structures and processes in place to support challenge-led research and innovation with development impact within signature investment awards and programmes?</p>	<p>1a. ODA R&I management (at programme and award level): Scoping and framing of challenge for relevance and coherence ToC and shared vision Commissioning and selection of portfolio to deliver against challenge Capacity needs assessed and identified Risk factors identified and mitigated</p> <p>1b. ODA R&I excellence in design and implementation: Relevance and coherence in design and delivery Strategic/holistic/system lens, including interdisciplinarity Negative consequences mitigated and a ‘do no harm’ approach</p>	<p>Document reviews: <i>Programme level: Policies, procedures, frameworks, ToCs, commissioning documents, reporting</i> <i>Award level: proposal, theories of change, policies, procedures and frameworks, reports and MEL data</i> Key informant interviews: <i>BEIS</i> <i>DP programme managers</i> <i>Principal Investigators (PIs) and Co-Investigators (Co-Is)</i> <i>Partner organisations</i> Survey: <i>Fund-wide online survey of all GCRF PIs and Co-Is</i></p>	<p>Programme-level analysis to achieve a broad overview of the signature investment and its processes, informed by a document review and analysis of the programme-specific subset of survey data.</p> <p>Award-level analysis via a qualitative dive into a sample of awards from within each investment to gain deeper insights into processes and early results from the programme, informed by key informant interviews (KIIs) and triangulated with specific documentation from each award.</p> <p>Assessment of the overall programme, examining the extent to which programmatic approach has enabled the awards to work as a portfolio that is more than the ‘sum of the parts’.</p>

	<p>Gender responsiveness and poverty addressed in design and processes</p> <p>Inclusiveness (SEDI) addressed within design and research processes</p> <p>Capacity needs identified and assessed</p> <p>Fairness in engagement with local research ecosystems/stakeholder engagement</p> <p>Positioning for use in design and delivery ('fit for purpose' engagement and dissemination strategies; relationship building; best platforms for outputs for the target audience and users)</p>		<p>Survey analysis: descriptive statistics and regression analysis</p>
<p>EQ 2. To what extent are structures and processes in place to strengthen R&I capacity in LMICs and the UK?</p>	<p>Clear theory of change for how capacity development contributes to the desired programme outcomes</p> <p>Analysis/understanding of local R&I ecosystems and capacity needs</p> <p>Capacity support that aligns with good practice provided to individuals, organisations and/or R&I infrastructure</p> <p>Fairness considerations integrated</p>	<p>As above</p>	<p>As above</p>

<p>EQ 3. To what extent are processes [to support challenge-led research] efficiently implemented: are they proportionate for UK and LMIC stakeholders, timely and do they offer value for money?</p>	<p>Efficiency and timeliness of processes Proportionality for size of investment Fairness for partners VfM rubrics</p>	<p>As above</p>	<p>As above</p>
<p>EQ 4. To what extent have the signature programmes made early progress towards their desired outcomes/impacts, and what evidence exists of these?</p>	<p>Results and outcomes from programme ToCs; examples Impact of and adaptation to Covid-19 on progress Unintended outcomes (positive and negative)</p>	<p>As above</p>	<p>As above</p>
<p>EQ 5. What particular features of award and programme processes have made a difference in positioning the signature</p>	<p>Contextual factors shaping the interventions and outcomes: Maturity of the field Research capacity strengthening Risk in the research environment (i.e. organisational contexts' support for research)</p>	<p>As above</p>	<p>As above</p>

<p>investments for overcoming barriers and achieving their desired outcomes in different contexts? (Context, causal factors)</p>	<p>Risks in political environment (i.e. underdeveloped policy environment, unstable political context, local recognition of the issues and LMIC communities themselves)</p> <p>Risks in data environment (i.e. data availability and agreement on measures)</p> <p>Examples of success factors e.g. the necessary factors proposed in the GCRF ToC for navigating barriers/facilitators:</p> <p>Networks, credible evidence/innovation and new capabilities mobilised to amplify change</p> <p>Iterative engagement by GCRF programmes and projects, responding to opportunities to amplify change</p> <p>Other features and factors, e.g. a focus on GESIP, scoping demand, flexibility in the budgeting model</p>		
<p>EQ 6. What can be learned about the additionality (uniqueness) of GCRF funding from:</p>	<p>Extent to which GCRF funding is instrumental for achieving the outcomes or can be substituted</p> <p>Additionality of knowledge funded by GCRF and whether the</p>		

<p>how the signature investments have adapted their approach in response to Covid-19; the impact of the 2021 funding cuts on the signature investments?</p>	<p>equivalent could be secured through other sources in same time frame/quality, etc. (as defined in the VfM rubric)</p> <p>Interventions within awards and programmes that rely on GCRF funding</p> <p>Other aspects that GCRF funding is instrumental for</p>		
<p>EQ 7. What lessons can inform improvements in the future delivery of the signature investments & promote learning across GCRF?</p>	<p>Specific insights and lessons from the award that stand out as exemplary practice, strong processes, outcomes and results that can be learned from, etc., success factors, reasons why</p> <p>Captures also specific areas for improvement in the award, areas of underperformance and reasons why</p>		

Annex 3: Synthesis Evidence Base

Evidence type	Challenge Leaders	FLAIR	Four Nations	GROW	Inter-disciplinary Hubs	IPP
Signature investment documents	28 contextual, strategic and programme documents	109 documents Award level: 87 Programme level: 22	170 contextual, strategic and programme documents	286 documents Award level: 267 Programme level: 19	253 documents Award level: 236 Programme level: 17	155 documents Award level: 125 Programme level: 30
Interviews	49 interviews Challenge Leaders: 10 POs: 15 Strategic advisory group: 6 Award holders: 12 External partners: 6 (% women)	48 interviews Programme staff: 15 FLAIR fellows: 20 FLAIR collaboration grant holders: 6 Host institution staff: 2 Unfunded FLAIR fellows: 5 (% women)	41 interviews Funding body grant managers: 4 Higher education institution research managers: 13 UK award holders: 12 LMIC award holders: 12 (% women)	91 interviews Award level: 88 UKRI staff: 3 (% women)	59 interviews Award level: 49 UKRI staff: 10 (% women)	36 interviews Award holders: 26 UKSA & Caribou Space staff: 5 Panel members & independent assessors: 5

Fund-wide documents	
Fund-wide award holder survey	
Fund-wide interviews	11 interviews BEIS staff: 4 DP programme-level staff: 7 (55% women)

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