

GCRF Process Evaluation Report, Stage 1b

Future Leaders – African Independent Research (FLAIR) Process Evaluation

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List of acronyms

AAS	African Academy of Sciences
AESA	Accelerating Excellence in Science in Africa
BEIS	Business, Energy and Industrial Strategy
Co-I	Co-Investigator
DELTAS	Developing Excellence in Leadership, Training and Science
DFID	Department for International Development
DHF	Dorothy Hodgkin Fellowship
DP	Delivery Partner
ECR	Early Career Researcher
EDI	Equality, Diversity and Inclusion
EQ	Evaluation Question
FCDO	Foreign, Commonwealth & Development Office
FCG	FLAIR Collaboration Grant
FCO	Foreign and Commonwealth Office
FLAIR	Future Leaders – African Independent Research
GCRF	Global Challenges Research Fund
GDPR	General Data Protection Regulation
GESIP	Gender, Social Inclusion and Poverty
GNI	Gross National Income
IR	Integrated Review of Security, Defence, Development and Foreign Policy
KII	Key Informant Interviews
LMIC	Low-to-Middle-Income Country
M&E	Monitoring and evaluation
MCDC	Malaria Capacity Development Consortium
MEL	Monitoring, Evaluation and Learning
MEQ	Main Evaluation Question
NIH	National Institute of Health
NGO	Non-Governmental Organisation
ODA	Official Development Assistance
PI	Principal Investigator
PP	Purchasing Power
R&D	Research and Development
R&I	Research and Innovation

REDCap	Research Electronic Data Capture
RMT	Research Management Team
RS	Royal Society
SDG	Sustainable Development Goal
ToC	Theory of Change
ToR	Terms of Reference
UCT	University of Cape Town
UK	United Kingdom
UKRI	UK Research and Innovation
UN	United Nations
URF	University Research Fellowship
US	United States
VfM	Value for Money

Executive Summary

The Global Challenges Research Fund (GCRF) is a £1.5 billion fund overseen by the United Kingdom's (UK's) Department for Business, Energy and Industrial Strategy (BEIS). GCRF supports pioneering research and innovation that addresses the challenges faced by developing countries. The GCRF evaluation examines the fund's Theory of Change (ToC), from activities to impacts, over a five-year period running from 2020 to 2025. This report is part of the second stage of the evaluation, Stage 1b, which examines GCRF's large-scale strategic initiatives (2021–22). It presents the findings of the process evaluation of the Future Leaders – African Independent Research (FLAIR) programme, delivered by the Royal Society (RS) and the African Academy of Sciences (AAS) under GCRF. The process evaluation examines the FLAIR programme with a view to answering the evaluation question: *'How well are GCRF's signature investments working, and what have they achieved?'*

FLAIR was a unique opportunity for African postdoctoral researchers to work in African institutions on highly relevant development challenges. It was supported by largely effective, flexible programme processes and was well positioned to deliver results. The programme's focus on scientific excellence has led to an uneven distribution of awards across the continent and meant that less developed institutions have missed out on capacity strengthening efforts, and the Official Development Assistance (ODA) funding cuts in 2021 constrained potential outcomes. Overall, however, FLAIR has succeeded in supporting a strong cohort of African early career researchers (ECRs), producing high-quality research on key issues for their countries and linking well into international and regional collaboration networks to support future work. FLAIR offers important lessons for future ODA funds.

GCRF Evaluation

The purpose of the GCRF evaluation is to assess the extent to which the fund is progressing towards its objectives and impact. The evaluation also aims to provide insights and lessons for the design and management of future ODA research and innovation (R&I) funds. The evaluation is being conducted over the period 2020–25 and is structured into three overarching stages.

This report forms part of the second stage of the evaluation of the GCRF, the focus of which is to examine GCRF's large-scale, strategic investments

– so-called 'signature investments' – to assess their alignment with the fund's strategy and the extent to which they show signs of delivering anticipated impacts. The overarching evaluation question of this phase is:

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

GCRF's signature investments are diverse. As such, six separate process evaluations have been undertaken to answer this evaluation question.

This report focuses on the FLAIR programme, a

GCRF signature investment delivered in partnership between RS and AAS.

Overview of the FLAIR programme

The FLAIR programme provides postdoctoral fellowships for African ECRs at sub-Saharan African institutions. In addition, FLAIR Fellows could apply for FLAIR collaboration awards, which provide them with the opportunity to expand their international networks by funding collaboration activities between fellows and UK-based researchers. The key objectives of the FLAIR programme are:

- to support high-quality research that addresses the global development challenges;
- to support talented ECRs to establish independent research careers in Africa; and
- to provide world-class support, including through the provision of training, mentoring and networking opportunities.

Notably, FLAIR was distinct from other GCRF programmes in awarding funding directly to African fellows and their host institutions, and so were among a very few GCRF investments that were Southern-led. FLAIR fellowships have an initial two-year funding period, with the possibility of a renewal for a further three years.¹ FLAIR fellowships and collaboration awards have been delivered through three funding rounds: 2019, 2020 and 2021.² In total, 59 fellowships and 36 collaboration awards have been funded. The majority of FLAIR fellowships have been awarded to South African institutions, as is shown in Table 1.

¹ Owing to cuts to GCRF funds, funding for renewal of FLAIR fellowships was withdrawn in 2021.

² Please note that two funding rounds for each component (two for Fellowships, and two for collaboration grants) were completed. For

Table 1: FLAIR fellowships by country

FLAIR Fellowships 2019 & 2020 – lead applicant country	
South Africa	31
Kenya	10
Ghana	4
Nigeria	4
Uganda	2
Ethiopia	1
Cameroon	1
Democratic Republic of the Congo	1
Senegal	1
The Gambia	1
Zimbabwe	1
Botswana	1

The programme has supported research across disciplines from engineering to physiology, with chemistry most frequently listed as the primary subject of FLAIR research. Multidisciplinary work has also been a focus of the programme, with expertise and inputs from different natural sciences. The range of FLAIR research disciplines is shown below in Table 2.

Table 2: No. of FLAIR awards by discipline

FLAIR Fellowships 2019 & 2020 – subject area (1)	
Chemistry	12
Earth and Environmental Sciences	5
Materials Science	5
Biochemistry and molecular cell biology	4
Microbiology, immunology and developmental biology	4
Ecological science (including soils and agriculture)	4
Health and Human Sciences	4
Genetics (excluding population genetics)	4
Microbiology (except medical microbiology)	3
Molecular Cell Biology	2
Earth sciences	2
Engineering	2
Immunology	2
Neurosciences	2
Engineering and Technology	1
Organismal biology, evolution and ecology	1
Physiology	1
Environmental Physical Sciences	1

the third Fellowship round in 2021 successful candidates were selected but it was not possible to make awards due to the ODA funding reductions that affected all GCRF programmes.

Evaluation overview

The FLAIR process evaluation aims to answer the evaluation question (EQ) above by investigating structures and processes involved in commissioning, managing and implementing FLAIR awards, the extent to which these have promoted excellence in ODA R&I, and their early results. For this purpose, the overarching EQ was broken down into a series of sub-EQs and associated criteria. The sub-EQs aim to capture processes and structures that we would expect to see in an ODA challenge fund, building on findings from the first stage of the GCRF evaluation. The sub-EQs – and our findings regarding each – are set out in Section 1.4 below.

For the FLAIR process evaluation, a stratified sample of 20 FLAIR fellowships, to provide in-depth analysis, was selected. Data collection was undertaken at programme and award levels through interviews, document review and a survey, with award-level data collection focusing on the 20 selected awards. A survey targeted all FLAIR award holders to provide a more comprehensive overview of the programme. The evaluation was unable to consult unsuccessful applicants, owing to data privacy restrictions.

Data collection took place from July to November 2021, with analysis taking place from November 2021 to January 2022.

Evaluation findings

FLAIR had effective structures and processes in place to support challenge-led R&I with development impact, promoting local relevance, supporting award holders and building links within the cohort. (EQ 1)

The FLAIR programme's objectives are well aligned with GCRF's goal of supporting challenge-led research with development impact, and there are well-established processes to ensure that commissioned research addresses development challenges. Making the fellowships Southern-led has been an important factor in aligning projects with local development needs. At the same time, the extent to which commissioning processes address specific GCRF development considerations is mixed. For example, the programme has been effective in ensuring that

the research supported is relevant to local development needs, but placed less emphasis on coherence between awards. FLAIR has been conceptualised and delivered through an effective partnership between RS and AAS, though there are some elements of this partnership that could have been developed further. Programme management is broadly considered to have been responsive, supportive and adaptive by award holders, though again some areas for improvement were highlighted, particularly around the way in which the cuts to FLAIR funding have been managed. A notable feature of the FLAIR programme has been its efforts to create opportunities for collaboration and cohort building between FLAIR fellows, as well as wider networking opportunities with other like-minded researchers. FLAIR has well-established monitoring and evaluation (M&E) processes in place at the programme level, including informal mechanisms to inform programme learning. There is potentially scope for more to be done to leverage monitoring processes to better meet ODA R&I excellence, as well as to promote stronger monitoring processes at award level.

Capacity development was a core focus, and there have been some strong examples, but a lack of clear definition at programme level meant that capacity efforts have been largely applicant-led, with some missed opportunities for broader contributions. (EQ 2)

Capacity development has been a clear priority during the commissioning of FLAIR awards, with all awards having goals or objectives related to capacity building. However, the FLAIR programme has also lacked a clear definition of 'capacity building', with the result that approaches to conceptualising capacity building have generally been applicant-led. While this bottom-up approach has its benefits, it has also resulted in the focus of capacity building being primarily, though not exclusively, at individual level. The lack of a clear definition has arguably also contributed to broader missed opportunities, for example a concentration of FLAIR awards in well-equipped institutions better positioned to conduct world-leading research, rather than in less well-established institutions that might most benefit from institutional capacity support.

Notwithstanding these issues, the FLAIR programme provides some very strong examples of capacity development at both individual and institutional level, the latter through both funding and through the programme's due diligence process for host institutions.

FLAIR processes were considered to be effective and efficient, with some exceptions on reporting, and were perceived to offer value for money. (EQ 3)

On the whole, FLAIR processes are considered to be effective and efficient by both award holders and programme personnel, with the FLAIR team viewed as helpful and responsive. Fellows and reviewers, for example, have been impressed by the efficiency and organisation of the application processes and by the flexibility and adaptation of the process between calls. Financial reporting processes and fund transfer processes, however, were notable exceptions to this broadly positive appraisal, with some fellows feeling that quarterly reporting requirements were excessive and burdensome. Reflecting this, only 30% of those FLAIR fellows surveyed reported that funding was delivered in a timely fashion. In the absence of tailored metrics, the extent to which FLAIR awards offer value for money (VfM) is difficult to assess. Overall, however, FLAIR was perceived by respondents to provide good VfM, though in some cases there were suggestions that grants were possibly overly generous for the purposes.

In a relatively short time, FLAIR award holders have delivered a wide range of outputs and laid the foundations for future outcomes and impacts, despite the significant challenges of the Covid-19 pandemic. (EQ 4)

In the relatively short time since the establishment of the FLAIR programme, FLAIR award holders have delivered a wide range of outputs. These have included innovations, publications, presentations, engagements, prizes and wider outputs, including contributions to the establishment of new scientific bodies and participation in scientific research to support the Covid-19 response. In some cases, FLAIR award holders have also successfully engaged wider stakeholders and end users in research outputs. This progress has been made in spite of the wide-

ranging impacts of the Covid-19 pandemic. In many cases, cuts to the renewal of FLAIR awards pose a significant threat to the translation of research outputs so far achieved into longer-term outcomes and impacts, as it was designed as a five-year programme.

Flexibility and responsiveness in programme processes have helped FLAIR award holders overcome barriers, including political challenges and institutional capacity constraints to position them for progress towards outcomes. (EQ 5)

Constrained institutional capacity has in some cases acted as a barrier to research and created delays – for example, lack of compliance with conditions of awards leading to delays in receipt of research funding. Relatedly, a lack of institutional postdoctorate culture, along with broader political and environmental challenges, has hindered some fellows' ability to progress their research. At the same time, a range of enabling factors has also helped to support FLAIR award holders, including FLAIR programme support, institutional facilities and expertise, wider networks and collaborations and virtual tools. FLAIR's flexibility and openness to adjustments in the research process has been a particularly important enabling factor.

The FLAIR programme is unique in the scale and nature of funding – notably, awarding grants directly to Southern researchers - and support offered to sub-Saharan African postdoctoral researchers. As such, the programme has provided a unique opportunity for African postdoctoral researchers to work in African institutions. (EQ 6)

The additionality of the programme has arguably already been demonstrated in the context of the cuts to FLAIR funding, with several fellows having emigrated as a result. Beyond harming individual fellows' prospects, there are also signs that the funding cuts have caused significant reputational damage to the UK.

Conclusions and recommendations

In FLAIR, RS and AAS established a programme well set up to deliver on GCRF's strategic goals. Moreover, in several respects the FLAIR programme provides a strong example of how to

deliver an effective challenge-led ODA R&I programme which future programmes may follow. In conducting this evaluation, we have also highlighted a number of areas where FLAIR processes have been weak or would have benefited from further development. Drawing on these strengths and weaknesses, we identify the following recommendations for future programmes:

- **Address questions of fairness and equity at all levels of programme delivery:** FLAIR demonstrates the potential for a strong and equitable partnership between a UK and an African organisation to co-develop and co-implement a programme, while also offering examples of effective and equitable partnerships between UK and African researchers.
- **Provide opportunities for award holders to build networks and collaborations:** While the ultimate impact of these efforts has been weakened by the disruption of the Covid-19 pandemic and the funding cuts, there are clear indications not just that these cohort building activities were highly valued by award holders, but also that they have helped to foster new collaborations and partnerships that may not otherwise have been established.
- **Ensure flexibility and adaptability in programme delivery:** Management of the FLAIR programme has been flexible and adaptable, in terms of both day-to-day management and approaches to longer-term programme delivery, the latter supported by informal mechanisms for learning and adaptation. This has been positively received by award holders and has improved the programme's ability to cope with the disruptions caused by unforeseen circumstances, such as Covid-19.
- **Integrate key fund objectives into programme commissioning and monitoring:** While FLAIR is well aligned to GCRF's strategic goals, this evaluation has also found that the tailoring of

commissioning and monitoring processes to address more specific GCRF development considerations is mixed. This highlights a broader need to consider alignment at fund and programme levels, taking into account the balance between fund-wide and programme-specific goals.

- **Define capacity building clearly and have clear goals regarding intended capacity building impacts:** FLAIR has contributed to capacity development at various levels but has been hampered by the lack of a clear definition for capacity building. This has contributed to a tension whereby the capacity development of individuals within well-established institutions has taken precedence over the capacity development of less well-established institutions, where support is arguably more needed. By being clear about the specific goals of capacity building, future programmes can ensure that resources and activities are fully targeted towards those ends.
- **Future programmes and funding allocations need to recognise the long term funding commitment required to support ECRs in order to achieve meaningful outcomes and impact:** While FLAIR fellowships were designed as five-year awards in recognition that ECR's need long term support, the cuts to funding have reduced most FLAIR fellowships to two-year awards, and this has illustrated the inherent difficulty of achieving meaningful outcomes within such short time frames. Future programmes should recognise the long-term commitment required to support ECRs to undertake high-quality, impact-oriented research, and build this into their funding strategies.

1. Introduction

The Global Challenges Research Fund (GCRF) evaluation examines the fund's Theory of Change (ToC), from activities to impacts, over a five-year period running from 2020 to 2025. The evaluation is structured into three stages owing to the complex nature of the fund. This report is part of the second stage of the evaluation, Stage 1b, which examines GCRF's large-scale, strategic GCRF initiatives. It focuses on the Future Leaders – African Independent Research (FLAIR) programme, a GCRF 'signature investment' aimed at supporting talented early career researchers (ECRs) to establish an independent research career in African institutions and work on priority development challenges.

1.1. Overview

GCRF is a £1.5 billion fund announced by the United Kingdom (UK) government in late 2015, an unprecedented investment into pioneering research that addresses the challenges faced by developing countries. GCRF forms part of the UK's Official Development Assistance (ODA) commitment and aimed to contribute to the achievement of the UK's 2015 aid strategy's goals.

GCRF aims to harness UK science in the search for solutions to the challenges faced by developing countries while also developing the UK's ability to deliver cutting-edge research and innovation (R&I) for sustainable development. GCRF is implemented by 17 of the UK's R&I funders, which commission R&I as delivery partners (DPs).

GCRF's ToC sets out GCRF's expected impact, to emerge over a 10-year period:

'Widespread use and adoption of GCRF-supported research-based solutions and technological innovations enables stakeholders in LMICs [low-to-middle-income countries] to make progress at scale towards addressing complex development challenges. [This progress] will be sustained into the future by enduring equitable research and innovation partnerships between the UK and LMICs, and enhanced capabilities for challenge-oriented research and innovation in all regions'.

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

- 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' (UN's) sustainable development goals (SDGs). 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 evaluation, Stage 1b: Understanding GCRF's processes and early results

The purpose of the GCRF evaluation is to assess the extent to which the fund is progressing towards its objectives and impact. The overall GCRF evaluation takes a theory-based design, tracking the GCRF ToC over the life of the fund (see Annex 1). The evaluation is conducted over five years and across three stages. The evaluation started in 2020, when GCRF was in the final year of its first phase of five years (2016-2020). Stage 1a (2020-2021) examined the foundations for achieving development across the fund, addressed through four modules: management; relevance and coherence; fairness; and gender, social inclusion and poverty (GESIP).³

Stage 1b began in April 2021, with six process evaluations of GCRF's 'signature investments' – large-scale programmes that aim to deliver on GCRF's strategic objectives and where there has been considerable investment into programme management processes to promote excellent ODA R&I with development impact. In addition, a fund-wide survey and a value for money (VfM) assessment were also conducted in this phase.

This stage seeks to answer the overarching evaluation question (EQ):

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

Box 1. What is a 'programme' in GCRF?

In the GCRF context, programmes are designed and managed by GCRF's DPs. They involve the allocation of an amount of funding for the commissioning of a specific portfolio of awards. A set of specific objectives guides commissioning of projects to contribute to GCRF's goals. Programmes often specify ways of working, e.g. in partnership with institutions in low and middle-income countries, through interdisciplinary work and involving stakeholder engagement. Research topics and countries are not usually specified although, in the innovation programmes, development challenges and geographies are framed and awards are commissioned to respond to these. The 'signature programmes' involve more hands-on management of the portfolio by the DP than other calls, in order to optimise the portfolio's development impact potential. This programme management includes elements such as policies and frameworks that have to be met, such as gender, equity and inclusion, detailed monitoring and reporting, cohort linkages, support for skills building from the programme level, and links to wider networks of collaborators and research users.

³ Synthesis of these modules available at <https://www.gov.uk/government/publications/global-challenges-research-fund-gcrf-stage-1a-evaluation>. Individual module reports available at <https://www.itad.com/knowledge-product/how-to-build-the-foundations-for-development-impact-in-large-scale-research-funds/>

This report focuses on the process evaluation of the FLAIR programme,⁴ which aimed to support talented ECRs to establish independent research careers in Africa and conduct high-quality research that addresses the global development challenges.

Overview of the FLAIR programme

The FLAIR programme is delivered through a partnership between the Royal Society (RS) and the African Academy of Sciences (AAS). FLAIR provides postdoctoral fellowships for early career African researchers at sub-Saharan African institutions. Funding is provided directly to the host institutions in Africa, in a notable exception to the majority of the GCRF portfolio. The FLAIR fellows manage their grants directly, and some funding is included for facilities to strengthen the research environment in the host institution. In addition, FLAIR collaboration awards provide FLAIR fellows with the opportunity to expand their international networks by funding collaboration activities between fellows and UK-based researchers.

The objectives of the FLAIR programme are to:

- support talented ECRs to establish an independent research career in African institutions.
- enable high-quality research that addresses the global development challenges faced by the African continent.
- provide world-class support, training, mentoring and networking opportunities to benefit African ECRs.

The total GCRF allocation to the FLAIR programme is £18.3 million, of which £16.6 million has been for fellowship awards. In 2019 the inaugural FLAIR call funded 29 fellowships, while the 2020 FLAIR call funded 30 fellowships and 21 collaboration awards. In 2021, due to the impact of ODA funding cuts, no FLAIR fellowships were funded. However, funding was provided for 15 collaboration awards. FLAIR fellowships have a maximum award value of £150,000 per year, with a maximum value of £75,000 for collaboration awards.

FLAIR sits within a wider portfolio of GCRF-funded RS programmes, including International Collaboration Awards, Challenge Grants, Challenge-led Grants and fellowships awarded under the Dorothy Hodgkin Fellowship (DHF) and University Research Fellowship (URF) schemes.

As noted above, the FLAIR programme has supported awards through three funding rounds:

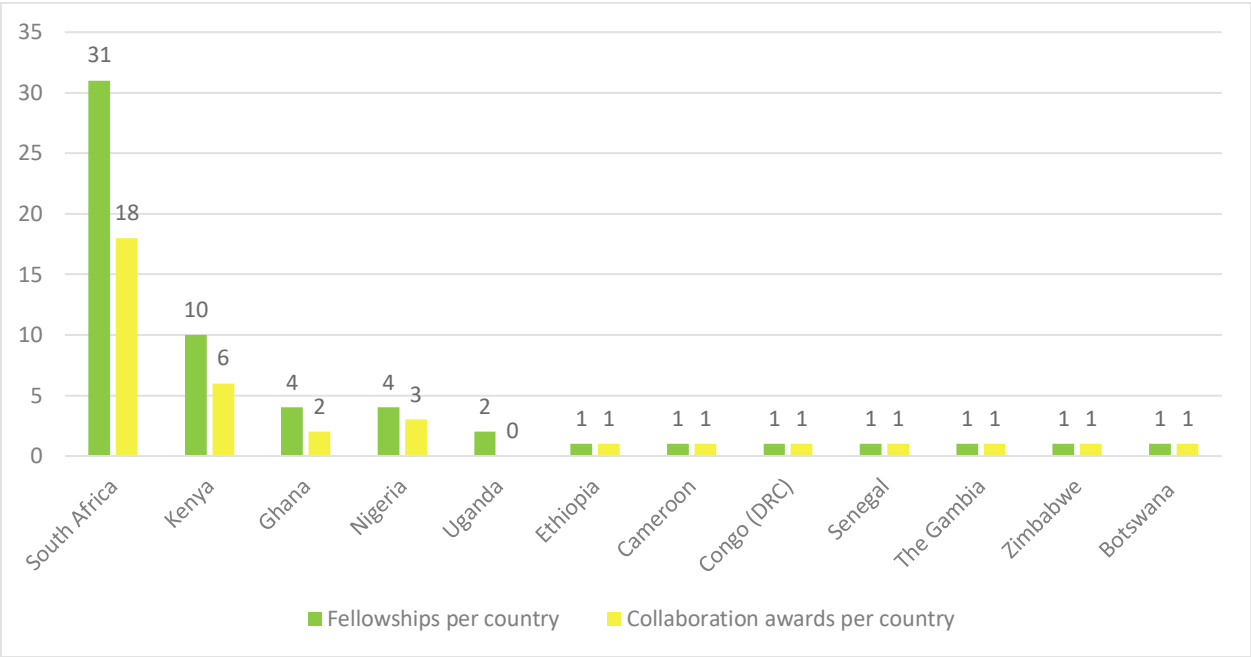
- a 2019 round funding 29 fellowships
- a 2020 round funding 30 fellowships and 21 collaboration awards
- a 2021 round funding 15 collaboration awards.⁵

Figure 1 below provides an overview of geographical distribution of FLAIR fellowships and collaboration awards by the country of the fellow's host institution. Approximately half of all FLAIR awards (53% of fellowships and 50% of collaboration awards) have been made to South Africa-based researchers.

⁴ During this phase, six process evaluations of signature investments were carried out, including GROW (UK Research and Innovation (UKRI)); Interdisciplinary Hubs (UKRI); FLAIR (Royal Society); International Partnerships Programme (UK Research Staff Association (UKRSA)); Challenge Leaders and portfolios (UKRI); and the Four Nations Funding Councils' awards to UK higher education institutions.

⁵ While it was planned for 30 fellowships to be offered in the 2021 round, these awards were withdrawn owing to the impact of ODA funding cuts.

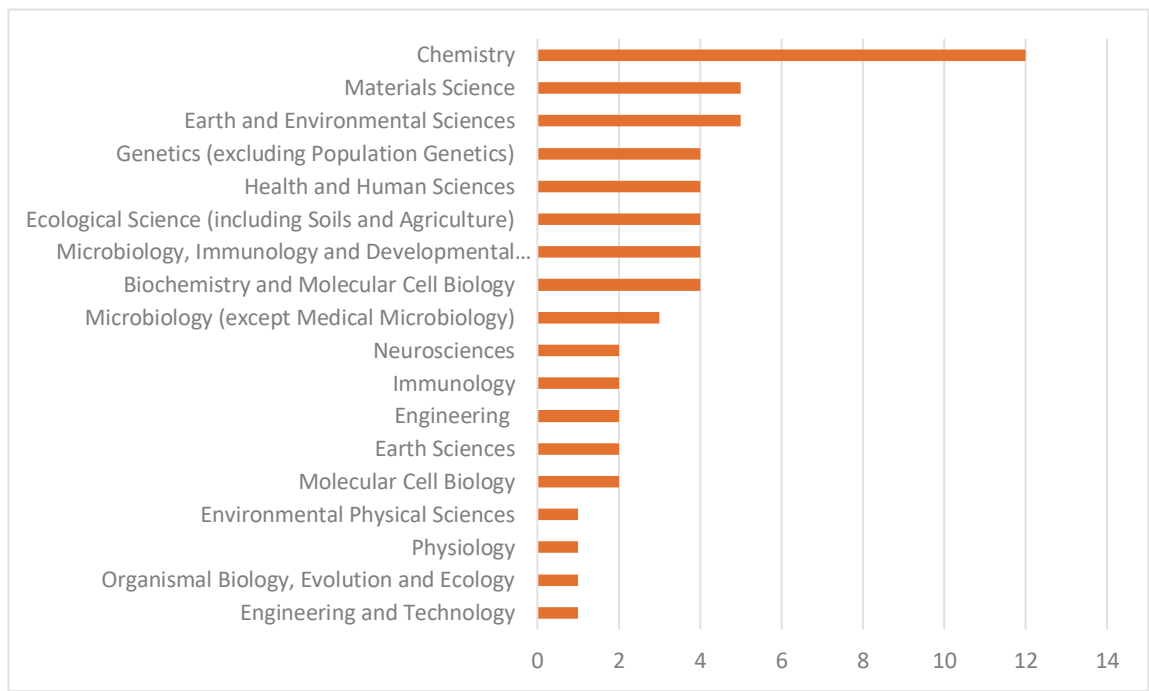
Figure 1 Number of fellowships and collaboration awards per country of host institution – 2019 and 2020 funding rounds



Source: Royal Society

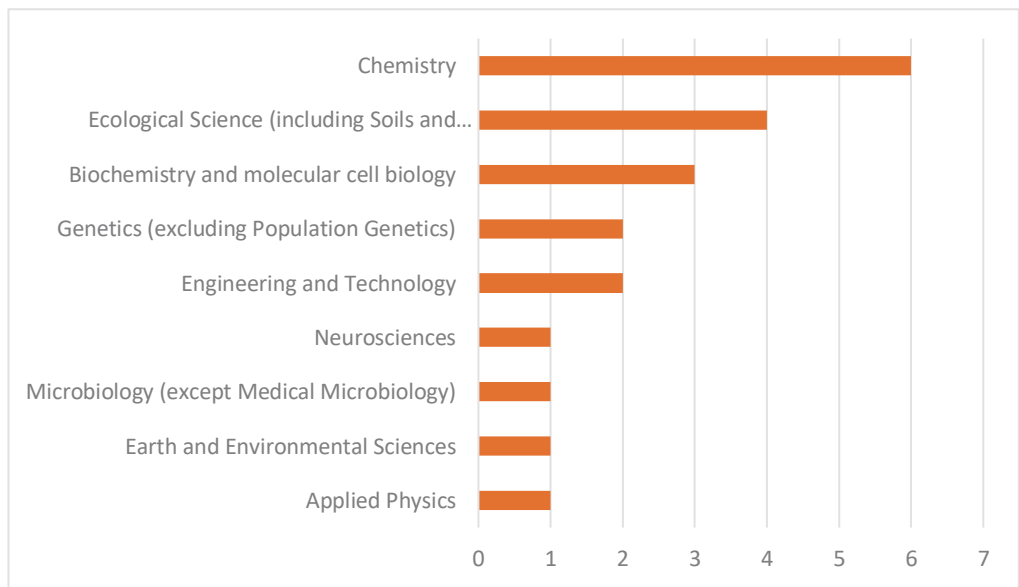
Figure 2 and Figure 3 provide an overview of the subject areas covered by FLAIR fellowships and collaboration grants. The highest proportion of awards (20% for fellowships and 29% for collaboration awards) have been within the field of Chemistry.

Figure 2: Number of fellowships by primary subject area – 2019 and 2020 funding rounds



Source: Royal Society

Figure 3 Number of collaboration awards by primary subject area – 2020 funding round⁶

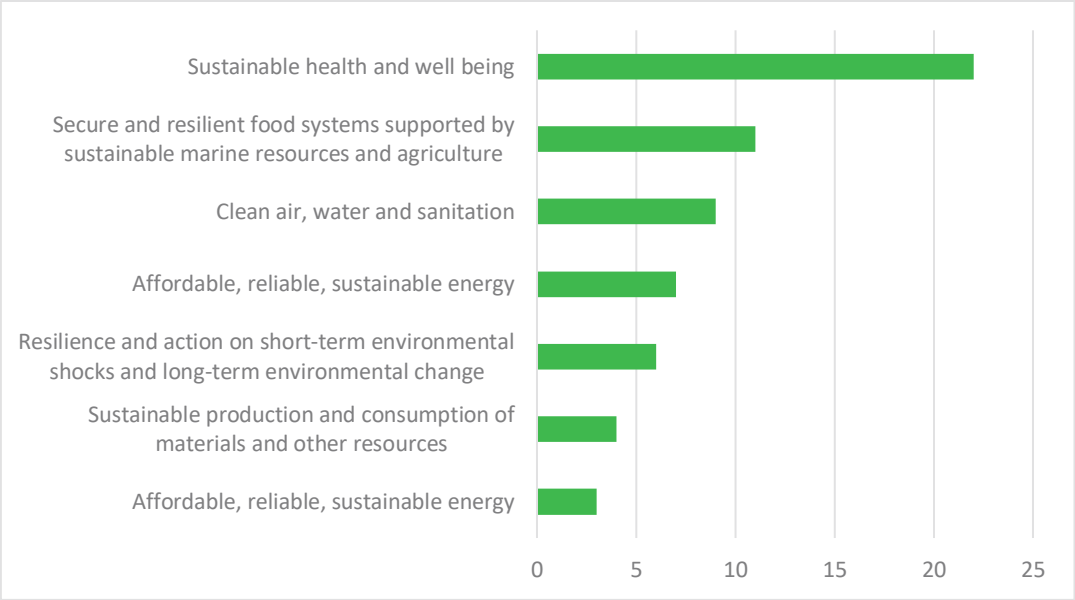


Source: Royal Society

⁶ Data on subject areas of 2021 collaboration grants had not been made available to the study team at the time of finalising this report.

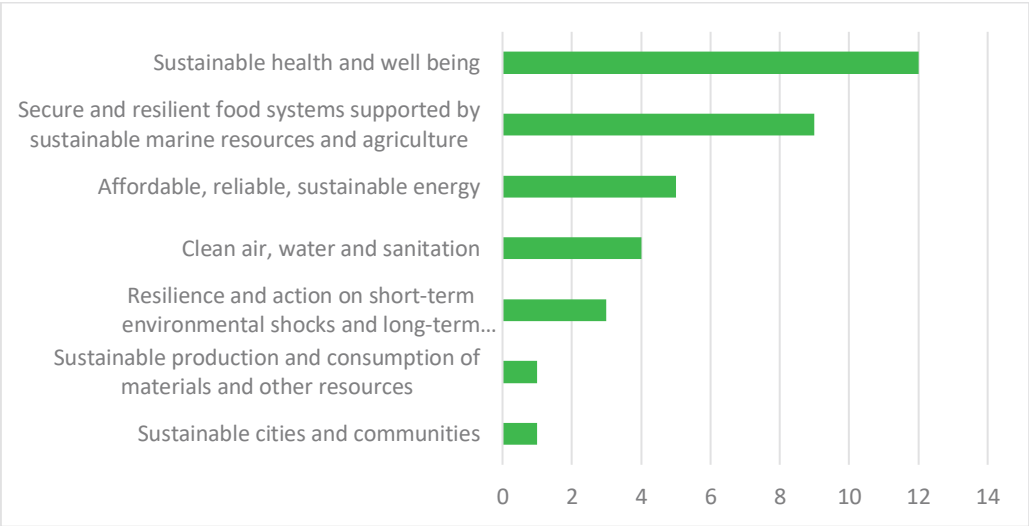
Figure 4 and Figure 5 provide an overview of the GCRF challenge areas covered by FLAIR fellowships and collaboration grants. The challenge area sub-theme most commonly addressed by awards and collaboration grants is Sustainable health and well-being (35% of fellowships and 34% of collaboration awards).

Figure 4 Number of fellowships by primary GCRF sub-theme – 2019 and 2020 funding rounds



Source: Royal Society

Figure 5 Number of collaboration grants by primary GCRF sub-theme – 2020 and 2021 funding round



Source: Royal Society

1.2. Aims and scope of the FLAIR process evaluation

The FLAIR process evaluation aims to answer the main evaluation question (MEQ) (see pg.2) by investigating structures and processes involved in commissioning, managing and implementing FLAIR awards, the extent to which these have promoted excellence in ODA R&I, and their early results. The FLAIR evaluation encompasses all R&I investments made in

the programme since its inception in 2018. It also looks at the programme processes and how these have cascaded to and been applied at award level, in order to develop a holistic assessment of the programme and its portfolio (see Section 2.2 for an overview of FLAIR).

We reviewed ODA R&I management processes, including:

- Scoping and framing of initiative for relevance and coherence;
- ToC and shared vision; commissioning and selection of portfolios, and awards within portfolios, to deliver against challenge;
- Risk factors identified and mitigated;
- Hands-on portfolio management;
- Flexibility to respond to events and emergencies;
- Addressing barriers to interdisciplinary working;
- Promoting coherence between portfolios;
- Facilitating learning for adaptation and legacy; and
- Monitoring and evaluation (M&E) and regular reporting.

The evaluation sets out a series of sub-EQs and criteria that aim to capture processes and structures that we would expect to see in an ODA challenge fund such as GCRF, building on the findings from Stage 1 (see below).

Data collection took place from July to November 2021, with analysis taking place from November 2021 to January 2022.

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. Ultimately, a utilisation-focused evaluation should be judged on its utility and actual use.

The primary users of the evaluation are the Department for Business, Energy and Industrial Strategy (BEIS), including the Science Technology Innovation Analysis Team; the wider ODA team in Swindon and London offices, including the Research Management Team (RMT), Data, Monitoring, Evaluation and Learning Team, and Programme Management Office; and the Delivery Partners (DP) who deliver GCRF.

1.3. Strategic and policy context

The first years of GCRF's evaluation, 2020–22, have seen significant changes in the strategic, policy and economic context of GCRF. These include a new policy framework that integrates defence and foreign policy, including ODA, and significant budget cuts for 2021–22 as a result of a reduction in the UK's ODA commitment from 0.7% of gross national income (GNI) to 0.5%, following the budget impacts of the UK government's large-scale response to the Covid-19 pandemic. In 2021 the policy decision was made to wind down GCRF by 2025, with implications for the evaluation.

The Integrated Review of Security, Defence, Development and Foreign Policy, (IR), published in March 2021,⁷ sets out the broader UK policy vision for foreign policy, including ODA, to 2030. This vision includes an increased commitment to security and resilience in the context of UK national interests in collaboration with other nations. The review had an explicit focus on defence, homeland security and the application of science and technology to grow the UK's cyber power. Although it emphasises a focus on multilateral solutions, the IR does not focus in detail on international development, the strategy for which has not yet been published at the time of writing, but which is due in 2022. It nevertheless now guides 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.

As the outcome of the IR, a new strategic framework outlines the government's national security and international foreign policy objectives. The framework includes four dimensions: sustaining strategic advantage through science and technology; shaping the open international order of the future; strengthening security and defence at home and overseas; and building resilience at home and overseas, prioritising efforts to tackle climate change and biodiversity loss.⁸

Science and technology are central to achieving the policy objectives, with a focus on emerging technologies in particular and the translation of innovation into practical applications, including in developing countries. In this sense, GCRF continues to remain relevant. Further, the national Research and Development (R&D) roadmap outlines that ODA will continue 'to support R&D partnerships within developing countries sharing research expertise in support of the SDGs', with Science and Technology remaining one of the UK's strategic priorities for ODA spending.⁹

The review also sets out seven priorities for UK aid, including supporting open societies and conflict resolution, humanitarian preparedness and girls' education, with climate change a high priority. The review reiterates the UK's commitment to the SDGs and states that poverty reduction will remain central to the work of FCDO.

Geographically, the IR describes a pivot in the UK's interests towards the Indo-Pacific region, although Africa and other developing regions remain a priority. As an ODA fund with an emphasis on low and middle-income countries, GCRF's main focus has been on Africa, and to a lesser extent Asia. The Indo-Pacific region has had less coverage. However, the breadth and diversity of GCRF should enable its continued relevance to this new geographical tilt.

Alongside a new foreign policy and international development framework, the Covid-19 pandemic has significantly impacted on ODA spending and management, with resulting cuts to the GCRF budget in 2021–22. The economic recession and resultant fiscal policies have affected the Spending Review that was carried out in autumn 2020, limited to a one-year timeframe. Reflecting the economic impact of the pandemic, the ODA commitment was reduced from 0.7% to 0.5 % of GNI as a temporary measure.¹⁰ While the IR commits to 'spend 0.7% of GNI on development when the fiscal situation allows', the ODA reduction in 2021

⁷ 'Global Britain in a competitive age. The Integrated Review of Security, Defence, Development and Foreign Policy', March 2021. [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](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)

⁸ As above.

⁹ 'UK Research and Development Roadmap', July 2020. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/896799/UK_Research_and_Development_Roadmap.pdf

¹⁰ 'Spending Review: Reducing the 0.7% aid commitment Insight', Thursday, 26 November 2020. <https://commonslibrary.parliament.uk/spending-review-reducing-the-aid-commitment/>

resulted in spending cuts for ODA-spending government departments – including BEIS, with consequential cuts to GCRF and the budgets of its DPs.¹¹

On 11 March 2021 UKRI stated that the BEIS ODA allocation to UKRI ‘has reduced significantly in planned ODA expenditure for FY21/22, leading to a £125m budget and a £120m gap between allocations and commitments’.¹² The implementation of these sudden budget reductions, which amounted to around 70% of committed spend, affected all GCRF’s DPs and investments across the board, with grants being delayed, reprofiled or, in some cases, terminated. In March UKRI, as the largest DP involved in GCRF, stated that it would be unable to provide GCRF funding beyond July 2021.

September 2021 saw a return to a three-year Spending Review and an improved picture for GCRF after the turmoil of the coronavirus pandemic, although – in response to the new policy framework – the decision was made to wind down BEIS’s ODA funds, GCRF and Newton by 2025. Following this budget, BEIS’s ODA allocation stabilised and some improvements were seen. Existing GCRF commitments are now able to be met until March 2025, which means that commissioned projects, including the large-scale flagship programmes, will be supported for the remainder of their terms to 2025. The cuts from 2020/21, however, will not be reimbursed, so projects are having to accommodate net budget reductions by reducing their scope.

The policy decision to wind the fund down by early 2025 means that spending in 2022–23 is on a declining trajectory, from £124 million in 2022–23 to £77.9 million in 2023–24 and £14.6 million in the final year, 2024–25. These circumstances represent a curtailment in the original ambition envisioned for GCRF in its ToC, which was to maintain investment in development R&I over a 10-year period.¹³ The assumption at the time the ToC was developed (2017–18) was that there would be a second, impact-oriented, phase of GCRF from 2021 to 2025. In this phase, it was expected that many of the larger awards (notably UKRI’s Interdisciplinary Hubs) and other investments would shift focus onto impact activities. With the winding down of the fund, these investments will now not take place, with implications for the achievement of GCRF’s midterm outcomes and impact.

Effectively, there are only two years of remaining R&I activity, 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 nevertheless that the evaluation will continue to track GCRF up to its close in March 2025. For Stage 1b, the evaluation has been adjusted to take these challenges into account, with specific EQs focusing on the impacts of Covid-19 and budget reductions. For future phases, the evaluation is in the process of being refocused to reflect the winding down of the fund and the need to capture lessons and document GCRF’s accomplishments and legacy for LMICs and the UK.

1.4. Structure of the report

The structure for this report is as follows:

¹¹ ‘Global Britain in a competitive age. The Integrated Review of Security, Defence, Development and Foreign Policy’, March 2021. 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

¹² UKRI Official Development Assistance letter, 11 March 2021. <https://www.ukri.org/our-work/ukri-oda-letter-11-march-2021/>

¹³ Barr, J. et al., 2018, GCRF Foundation Stage Report. <https://www.gov.uk/government/publications/global-challenges-research-fund-gcrf-foundation-stage-evaluation>

Section 1 provides an introduction to the FLAIR programme and provides an overview of the process evaluation. It sets out the context of the wider evaluation process as well as situating it within the strategic and policy context for this specific evaluation.

Section 2 describes the approach and methodology, including EQs and criteria, as well as the data collection instruments, sampling approach, and analysis.

Section 3 presents the findings against EQs 1–6.

Section 4 provides conclusions, lessons and high-level recommendations for the design of similar initiatives.

2. Approach and 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 EQs and criteria that the process evaluation aims to answer. It also summarises the data collection method, sampling, data analysis and our key strengths and limitations.

2.1. Overview of approach

The overall GCRF evaluation takes a theory-based design, tracking the GCRF ToC over the projected 10 years of the fund (see the Inception Report 2020 for more details). The Stage 1b process evaluations (together with the survey and VfM assessment) provide an opportunity to test the early stages of the GCRF ToC and its assumptions to understand how the signature investments have integrated the key processes and strategies proposed in the ToC into their programmes in order to optimise the ODA excellence and impact potential of their awards.

Stage 1b of the GCRF evaluation focuses on MEQ2: *How well are GCRF investments working, and what have they achieved?* While the focus is on process, the evaluation also seeks to capture insights on context, causal mechanisms and early-stage outcomes.

Conceptual framing of ‘ODA research excellence’ in GCRF

From April to June 2021, the evaluation completed a scoping phase to finalise the approach and method for Stage 1b. To deliver on its ambitions, GCRF goes 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 we term as ‘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 (see Box 2).

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 on GCRF was published in February 2022.¹⁴ Overall, the Stage 1a evaluation found that GCRF is making clear progress in terms of establishing the foundations for development impact – becoming relevant, coherent, well-targeted, fair,

¹⁴ Global Challenges Research Fund (GCRF): Stage 1a evaluation <https://www.gov.uk/government/publications/global-challenges-research-fund-gcrf-stage-1a-evaluation>

gender sensitive and socially inclusive. Strengths were seen especially in the ‘signature investments’ such as IPP, GROW, 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 was 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 research and innovation with development impact.** The synthesis identified an unresolved tension that at times privileged conventional research excellence and took a minimal ‘ODA-compliant’ approach to the fundamentals of development impact. The result is a focus that is more about legal compliance than effectiveness. For example, a narrow interpretation of OECD’s ODA definition – and one that is easier to check – is an adherence to the DAC List of ODA recipient countries. But this is a minimum threshold to be reached rather than the more ambitious pursuit of excellence through the consequential impacts of research on welfare and socio-economic development. 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 DPs 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.

A consistent request from BEIS has been for the evaluation to illustrate what ‘good looks like’ for a challenge fund such as GCRF. Therefore, to better frame GCRF’s ambitions from the challenge fund perspective, and to define the key characteristics of a fund of this nature, we conducted a rapid scan of the literature for challenge funds in international development and mission-oriented R&I (see the Stage 1b Approach Paper, 2021 in Annex 5).

Building on this review, the GCRF ToC and the findings from Stage 1a, a **single overarching evaluation framework** was developed for all six process evaluations and the fund-wide survey (set out in Section 2.2). The evaluation framework in Section 2.2 sets out the EQs and the combined criteria for assessing ODA excellence in design and delivery of GCRF’s signature investments. The specific features of each signature investment will be captured via tailored criteria within the evaluation framework (see Section 2.2 for the full evaluation matrix).

Summary of the evaluation method

The detailed methodology is set out in subsequent sections. In summary, the evaluation has examined the EQs through an iterative three-step approach:

1. **Examining the programme level 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.
2. **A deeper, 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.
3. **A holistic 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’.

Triangulation was the main approach to strengthen the evidence across all three levels:

- **Examples and triangulation within interviews:** Triangulation was applied within interviews to explore issues from different angles and elicit examples to support reports of achievements. These examples were then cross-checked with other data sources.
- **Triangulation between stakeholder types in both quantitative and qualitative data collection:** BEIS staff, DP programme managers, award holders and partners, increasing the number of different perspectives on a project/programme.
- **Triangulation between interview data, survey data, award and programme monitoring information and other documentary sources:** This included project annual reports, reporting through ResearchFish and programme review documentation that helped us to validate stakeholder testimony about processes and project achievements.

2.2. Evaluation questions and criteria

All Stage 1b process evaluations utilise a single overarching evaluation framework, which draws on the GCRF ToC outcomes and assumptions as well as insights from the literature on challenge funds and mission-oriented R&I in international development (see Annex 1). The overarching EQ has been broken down in the evaluation framework into seven evaluation questions and associated criteria to support the assessment of the ODA R&I processes.

These EQs were updated from the original Terms of Reference (ToR) to reflect the findings of the Stage 1b evaluation, a rapid literature review of challenge funds. The EQs were also adapted to reflect the structural and contextual changes around Covid-19 and an overall reduction in ODA funding that affected GCRF in 2021–22.

Table 3 below sets out the detailed evaluation framework. Through detailed criteria EQs 1–2 we examine the structures and processes that we would expect to find in a challenge fund to deliver ODA R&I with impact. EQ 3 examines the extent to which processes and structures have been efficient and timely and fair to partners; EQ 4 looks at the evidence for what has been achieved and emerging outcomes; EQ 5 explores the unique features of the signature programmes that have enabled them to overcome barriers in the thematic and geographical contexts; EQ 6 aims to establish the uniqueness and additionality of GCRF funding. Finally EQ 7 captures lessons for future funds.

Table 3: High-level evaluation framework

EQ	Criteria	Data sources and methods for all EQs
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>1a. ODA R&I management (at programme and award levels):</p> <ul style="list-style-type: none"> ▪ 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 ▪ Hands-on programme management (e.g. cohort building, aggregate-level R&I into use) ▪ Flexibility to respond to events and emergencies, e.g. Covid-19 ▪ Addressing barriers to interdisciplinary working ▪ Promoting coherence between awards ▪ Facilitating learning for adaptation and legacy ▪ M&E and regular reporting <p>1b. ODA R&I excellence in design and implementation:</p> <ul style="list-style-type: none"> ▪ Relevance + coherence in design and delivery ▪ Strategic/holistic/system lens, including interdisciplinarity ▪ Negative consequences mitigated and a 'do no harm' approach ▪ Gender responsiveness and poverty addressed in design and processes ▪ Inclusiveness addressed within design and research processes ▪ Capacity needs identified and assessed ▪ Fairness in engagement with local research ecosystems/stakeholder engagement ▪ 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>Data sources:</p> <p>KIIs with stakeholders at BEIS, DPs, awards and partners, as well as informed externals</p> <p>Survey data with Principal Investigators (PIs) and Co-Investigators (Co-Is)</p> <p>Programme and award documents</p> <p>Methods:</p> <p>Document reviews</p> <p>KIIs with BEIS Fund managers</p> <p>KIIs with DP programme managers</p> <p>KIIs with award managers</p> <p>KIIs with award partners in LMICs</p> <p>KII with externals, e.g. panel experts; others</p> <p>Survey analysis</p> <p>Programme and award documents</p>
EQ 2. To what extent are structures and processes in place	<ul style="list-style-type: none"> ▪ Clear ToC for how capacity development contributes to the desired programme outcomes ▪ Analysis/understanding of local R&I ecosystems and capacity needs 	

EQ	Criteria	Data sources and methods for all EQs
to strengthen R&I capacity in LMICs and the UK?	<ul style="list-style-type: none"> Capacity support that aligns with good practice provided to individuals, organisations and/or R&I infrastructure Fairness considerations integrated 	
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?	<ul style="list-style-type: none"> Efficiency and timeliness of processes Proportionality for size of investment Fairness for partners VfM rubrics 	
EQ 4. To what extent have the signature programmes made early progress towards their desired outcomes /impacts, and what evidence exists of these?	<ul style="list-style-type: none"> Results and outcomes from programme ToCs; examples Impact of and adaptation to Covid-19 on progress Unintended outcomes (positive and negative) 	
EQ 5. 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? (Context, causal factors)	<ul style="list-style-type: none"> Contextual factors shaping the interventions and outcomes: <ul style="list-style-type: none"> Maturity of the field Research capacity strengthening Risk in the research environment (i.e. organisational contexts' support for research) Risks in political environment (i.e. underdeveloped policy environment, unstable political context, local recognition of the issues and LMIC communities themselves) Risks in data environment (i.e. data availability and agreement on measures) Examples of success factors e.g. the necessary factors proposed in the GCRF ToC for navigating barriers/facilitators 	

EQ	Criteria	Data sources and methods for all EQs
	<ul style="list-style-type: none"> ○ Networks, credible evidence/innovation and new capabilities mobilised to amplify change ○ Iterative engagement by GCRF programmes and projects, responding to opportunities to amplify change ○ Other features and factors, e.g. a focus on GESIP, scoping demand, flexibility in the budgeting model 	
<p>EQ 6. What can be learned about the additionality (uniqueness) of GCRF funding from:</p> <ul style="list-style-type: none"> ▪ how the signature investments have adapted their approach in response to Covid-19 ▪ the impact of the 2021 funding cuts on the signature investments? 	<ul style="list-style-type: none"> ▪ Extent to which GCRF funding is instrumental for achieving the outcomes or can be substituted ▪ Additionality of knowledge funded by GCRF and whether the equivalent could be secured through other sources in same time frame/quality etc (as defined in the VfM rubric) ▪ Interventions within awards and programmes that rely on GCRF funding ▪ Other aspects that GCRF funding is instrumental for 	
<p>EQ 7. What lessons can inform improvements in the future delivery of the signature investments & promote learning across GCRF?</p>	<ul style="list-style-type: none"> ▪ Specific insights and lessons from the award that stand out as exemplary practice, strong processes, outcomes and results that can be learned from, success factors, reasons why ▪ Capture also specific areas for improvement in the award, areas of underperformance and reasons why 	

2.3. Selection and sampling

This section outlines the sampling strategy for data collection. To conduct the FLAIR process evaluation, we combined programme analysis with an in-depth analysis of sample of 20 FLAIR fellowships. Our approach to sampling drew on the following criteria, identified as key differentiating characteristics of FLAIR fellowships:

- **Year of award:** our sampling approach sought to ensure a mix of fellowships awarded in the 2019 and 2020 funding rounds.
- **Collaboration awards:** our sampling approach sought to ensure a mix between fellowships receiving FLAIR collaboration awards and those not receiving collaboration awards.
- **Geographical location of fellowship:** our sampling approach sought to ensure a mix of fellowships awarded in South Africa and Kenya, which constitute the majority of FLAIR awards, and fellowships awarded to researchers in other African countries.
- **GCRF sub-theme:** our sampling approach sought to ensure a mix of FLAIR fellowships addressing the GCRF theme of sustainable health and well-being and fellowships addressing other GCRF themes.

Given the relatively uniform distribution of award size across the FLAIR fellowships, award size was not considered a key criterion for sampling.

Sampling process

The sampling process is set out in Figure 6 below.

Figure 6 FLAIR sampling process



The sampling process produced draft A-list and B-list samples, both of which demonstrated a good balance across all four sampling criteria, with the A-list representing a marginally better mix against the criterion GCRF sub-theme and therefore being used as the basis of the sample. During data collection, owing to challenges engaging certain individual award holders, three A-list awards were replaced with awards from the B-list. When replacing A-list with B-list awards, the study team sought, as far as possible, to match the characteristics of the award being replaced, thereby maintaining the overall balance within the sample. The characteristics of the final award sample are summarised in Table 4 below.

Table 4 Summary of A-list sample characteristics

Criterion	Sub-categories	Number of fellowships in sample
Year of fellowship	2019 fellowships	11
	2020 fellowships	9
Collaboration awards	Fellowships receiving collaboration awards	7

	Fellowships not receiving collaboration awards	13
Geographical location	South African and Kenyan fellowships	11
	Fellowships in other countries	9
GCRF sub-theme	Fellowships addressing 'sustainable health and wellbeing'	7
	Fellowships addressing other GCRF sub-themes	13

2.4. Data collection, overview of the evidence base and analysis

In order to conduct this evaluation data was collected using a combination of methods, including a survey, interviews, and review of documentation. Data was collected during a period when Covid-19 was disrupting people's working patterns. Although Covid-19 impacted on award holders in terms of implementation, as detailed in Sections 1.3 and 3.4, there was no real impact of Covid-19 on the process evaluation, which was designed as a remote exercise from the outset. All interviews were conducted remotely via Teams or Zoom, and the desk review was conducted remotely. Internal team discussions, analysis and report writing were done remotely, using Itad's internal Teams and SharePoint system.

KIIs and document review

The study team conducted interviews with a range of stakeholders at both award and programme levels. At award level, this comprised interviews with the 20 FLAIR fellows within the sample and, where possible, with collaboration grants holders associated with these fellowships. In two cases, we also conducted interviews with research support staff within the fellow's host institution.¹⁵ At programme level, interviewees included RS and AAS programme staff (including M&E personnel), panel members and independent reviewers. We also conducted five interviews with prospective FLAIR fellows, i.e. successful applicants to the 2021 funding round, whose funding was withdrawn due to the impact of ODA funding cuts. In total, 46 interviews were conducted, with 48 interviewees.¹⁶ In conducting this process evaluation, we have also drawn upon data from interviews conducted with RS and FLAIR stakeholders conducted during phase 1a of the GCRF evaluation.

We also conducted a review of programme and award-level documentation. All documentation reviewed was provided by RS. At programme level, documents reviewed included panel guidance, panel minutes and scheme notes (for fellowships and collaboration grants). At award level, documents included application forms, progress reports, financial reports, conditions of award letters and good practice recommendations and award-level case

¹⁵ The aim of these interviews was to understand host institution experiences of FLAIR fellowships, including experiences with the due diligence processes undertaken for recipient institutions of FLAIR awards.

¹⁶ In two instances, joint interviews were conducted, each with two participant interviewees.

studies prepared as part of the evaluation of the Resilient Futures programme.¹⁷ Table 5 shows an overview of the evidence base.

Table 5 Number of interviewees by stakeholder group

Data source	Type/stakeholder group	Number
KIIs	Programme staff, including RS and AAS programme management staff, Monitoring, Evaluation and Learning (MEL) staff, panel members and reviewers	15
	FLAIR fellows	20
	FLAIR collaboration grant (FCG) holders	6
	Host institution staff	2
	Unfunded FLAIR fellows	5
	Total	48
Documents reviewed	Programme-level: panel guidance, panel minutes, scheme notes (fellowships and collaboration grants)	22
	Award-level: application forms, progress reports, financial reports, conditions of award letters and good practice recommendations, Resilient Futures evaluation case studies	87*
	Total	109

* Includes 7 documents containing information on all awards (e.g. consolidated application data and progress reports)

Survey data

As part of Stage 1b, a GCRF fund-wide survey was developed by the core evaluation team. The main aim of the survey was to quantify the process, mechanisms, early results and achievements that GCRF award holders and DPs have contributed to. The survey aimed to test a selection of core and sub-hypotheses related to these elements. The survey data ensured compatibility with the qualitative analyses from the signature investment process evaluations and alignment to the EQs for Stage 1b.

The award holder fund-wide survey consisted of 39 questions, gathering data from award holders on General Project Information; Structures and Processes for Project Implementation; MEL; Achievements; Utilisation of GCRF-Funded Research; Covid-19; and Budget Reductions.¹⁸

The award holder survey was launched on 20 October 2021 and ran until 19 November 2021. It was sent to approximately 10,472 people across the whole of GCRF, including PIs, Co-Is, researchers, fellows, and others involved in GCRF grants. In total, 3,612 responded to the survey, and there was a total of 82 FLAIR respondents (23 respondents from FCGs and 59 from FLAIR fellowships grants).

¹⁷ Resilient Futures is the name of a cross-academy initiative between the UK National Academies (Academy of Medical Sciences, British Academy, Royal Academy of Engineering and RS) through which GCRF investments are being delivered.

¹⁸ A DP survey was also carried out. This consisted of 21 questions, gathering data from DPs for each of their GCRF programmes on: (i) General Information; (ii) Structures and Processes; (iii) MEL. For the purpose of the FLAIR process evaluation, only data from the award holder survey was analysed.

Survey data has been used to triangulate findings from interviews and documentation review.

2.5. Data analysis

Award-level analysis

Documentation was initially reviewed and categorised as data, context or evidence. All documents categorised as evidence were further coded in MaxQDA using a common codebook structured to reflect EQs.

For the KII data, we analysed the KIIs through the following process:

- First, interview notes were written up into a structured template linking back to the main theme's EQs and criteria.
- Interview write-ups were then coded using MaxQDA, using the evaluation criteria as the structural codes (see Annex 3 for codebook).
- Coded interview data was then extracted and analysed for patterns, including similarities and differences in responses by sub-groups of stakeholders.

Data from award-level interviews and documentation review was summarised in a standardised award-level write-up, which was laid out according to the EQs and evaluation criteria, and a set of rubrics. The award write-up template is provided in Annex 3. For EQs 1–4, a tailored rubric assessment was also used to provide a rating for the award's progress in relation to that EQ. The rubrics are included in Annex 3. EQs 5–7 did not include a rubric assessment.

Confidence in evidence was also assessed for each EQ, using a red (low confidence), amber (medium confidence) and green (high confidence) rating, depending on the number of sources, the degree of detail for each source and the consistency among the sources.

Programme-level analysis

Completed programme interviews and documents were reviewed and collated into a FLAIR programme-level write-up. This had the same structure as the award-level write-up, with sections for each EQ and an overall summary of findings for FLAIR.

The programme analysis template was the main tool used for integrating data from different sources and assessing confidence in the evidence. The analysed data was combined for each EQ and evidence was triangulated to build the evidence base. We used established techniques from qualitative analysis: identifying and interpreting themes, developing explanations, translating emerging themes and explanations back to test against the source data, juxtaposing and exploring contradictory findings, and triangulating findings between the three evidence sources to answer the EQs.

In the programme template, analytical narratives for each EQ were written up, and the supporting evidence was documented. Our confidence in the evidence was then rated as for the award-level write-up. In our analysis of each EQ, we considered how confident we were in the strength of evidence underpinning our judgements. This is based on how strongly the evidence emerges from the individual sources, as well as the degree of triangulation possible between the sources.

As with the award write-ups, the programme-level write-up also included a rubric assessment for EQs 1–4.

Survey data analysis

The entire fund dataset was first prepared for analysis by removing respondents' data who did not provide consent to sharing data and removing 'special category data' from the dataset, specifically data on racial or ethnic origin and disability, meaning some of these variables will be 'missing data'.

The analysis of survey data was conducted using the Stata statistical software, making use of its large-scale data processing capacity and extensive range of data analysis and visualisation tools. We conducted the following steps of analysis and stratified the data by four signature funds, GROW, IPP, FLAIR and HUBS.

Descriptive univariable analyses were used to describe the sample populations and to summarise all survey measures initially and provide tables of results linked to the hypothesis and sub-hypothesis stratified by signature programmes.

Summary bivariate tables showed the relationships between indicators and grouping variables, including further disaggregations. The typical disaggregations were:

- the respondents' country of origin – classified as Low Income (LIC), Middle Income (MIC) or High Income (HIC) or UK
- the position of the respondent as a 'primary or secondary' researcher.

2.6. Strengths and limitations of our approach

Our approach has been comprehensive, covering all aspects of programme strategy and delivery in detail. We have reviewed all relevant programme documentation, examining panel review meeting minutes from each round, due diligence reports and good practice recommendations, as well as progress reports from relevant FLAIR fellows. Further to this, we have reviewed programme statistics, such as the gender breakdown of FLAIR cohorts, with the support of RS to inform our analysis. There are no obvious weaknesses in regard to the document review. We also completed a very wide range of interviews, speaking to 20 FLAIR fellows, many FCG collaborators, several in the 2021 funding cut cohort, programme staff at the AAS and RS, and non-research staff at sub-Saharan African institutions. During data collection, it was clear that we were reaching saturation and had covered the full range of viewpoints on the programme.

Two limitations have been identified. First, the original ToR envisioned that the evaluation would be able to speak to unsuccessful applicants. In practice, we were advised by DPs that this will be difficult to achieve, mainly due to General Data Protection Regulation (GDPR) restrictions that mean that DPs do not have permission to hold contact information for and contact unsuccessful applicants for evaluation. From a resource perspective, addressing these barriers did not seem cost-effective, so unsuccessful applicants are deemed out of scope.

Second, we did not interview the mentors of the award holders, separate to the FCG, to understand the role they played in the programme. These limitations were mitigated by the three levels of iterative triangulation outlined above (between respondents, within interviews and between different data sources, including the survey).

3. Findings

This section describes the findings for the FLAIR programme against six EQs to answer the overarching evaluation question ‘How well are GCRF’s investments working and what have they achieved?’ A seventh EQ, regarding lessons and recommendations for future programmes, is answered in Section 5.

3.1. EQ 1: To what extent are structures and processes in place to support challenge-led R&I with development impact, within signature investment awards and programmes?

Box 3. Structures and processes to deliver challenge-led R&I with development impact

- FLAIR’s objectives are well aligned with the goal of supporting high-quality research that addresses development challenges, and there are well-established processes in place to ensure that commissioned research is aligned to its objectives. FLAIR is notable for awarding grants directly to the host institution in the LMIC country, with positive implications for fairness and building leadership capacities. However, the extent to which commissioning processes meets the criteria ODA R&I excellence is mixed.
- FLAIR has been conceptualised and delivered through an effective partnership between RS and AAS. At the same time, there are some areas where this partnership could have been further developed. Moreover, while RS and AAS have appeared to hold a shared ambition for the ultimate transfer of the programme to AAS ownership, a clear plan and time frame for this has not been established.
- FLAIR has created opportunities for award holders to build new networks, collaborations and synergies with like-minded researchers. Broader day-to-day programme management of FLAIR has also been responsive, supportive and adaptive, though with programme support appearing to be concentrated in particular areas.
- While FLAIR has well-established M&E processes in place, both formal and informal, more could be done to monitor against key development considerations (i.e. ODA R&I excellence) and to support stronger monitoring processes at award level.

Our approach to answering the EQ

EQ 1 focuses on the structures and processes that we would expect to see in terms of managing challenge-led ODA R&I, at both programme and award levels, and in terms of implementation for excellence in ODA R&I. Our evaluation matrix set out a wide range of criteria, not all of which apply in the FLAIR context. To answer the EQ for FLAIR, we focused on the following criteria:

- Scoping and framing of the challenge for relevance and coherence.
- ToC and shared vision.
- Commissioning and selection of the portfolio.

- Addressing barriers to interdisciplinary working.
- Cohort building.
- Hands-on programme management.
- M&E and regular reporting.
- Institutional relationships.

3.1.1. Scoping and framing of the challenge for relevance and coherence

The objectives of the FLAIR programme reflect an ambition to support GCRF's challenge-led research with development impact, while also supporting capacity building. As noted above, through its fellowships and collaboration awards, the FLAIR programme aims to:

1. support talented ECRs to establish an independent research career in African institutions.
2. enable high-quality research that addresses the global development challenges faced by the African continent.
3. provide world-class support, training, mentoring and networking opportunities to benefit early career African researchers.¹⁹

The objectives make clear that research supported by the programme should not only be 'high-quality' but should also be focused on addressing development challenges faced by African countries. In funding such challenge-oriented research, the objectives make clear, FLAIR awards should also contribute to the capacity development of African researchers, thereby furthering development impact. These aims are strengthened by awarding funding directly to the FLAIR fellow and their host institution in LMICs.

The FLAIR programme builds upon a number of previous programmes established to support scientific research and research capacity building in Africa.²⁰ Recognising the limited capacities of African scientific research institutions, a number of previous programmes have sought to combine scientific funding for African research with broader forms of support, including mentoring and institutional capacity building.²¹ These programmes have sought to better support African grantees to conduct high-quality research in African institutions, while also addressing the broader problem of overseas settlement of African researchers.²² Such programmes include: the Malaria Capacity Development Consortium (MCDC), funded by the Bill and Melinda Gates Foundation; the Wellcome Trust and Developing Excellence in Leadership, Training and Science (DELTAS), funded by the Wellcome Trust and FCDO; the multi-partner Alliance for Accelerating Excellence in Science in Africa (AESA) programme;²³ and Royal Society Leverhulme Trust Africa Awards, Royal Society-DFID Africa Capacity Building Initiative.²⁴ The FLAIR programme draws upon the learning on these earlier programmes by framing both individual and institutional support as an essential part of capacity building for ECRs in Africa. AAS, RS's delivery partner for the FLAIR programme, had also been a partner in several earlier initiatives, including the DELTAS and AESA programmes.²⁵

¹⁹ FLAIR_Fellowships_Scheme_Notes.

²⁰ P20 interview.

²¹ P20 interview.

²² P20 interview; P21 interview.

²³ P20 interview.

²⁴ Comments tracker

²⁵ P4 interview; P18/P19 interview.

3.1.1. ToC and shared vision

The FLAIR programme was conceptualised and designed in partnership between the RS and the AAS. To steer this process, a joint RS–AAS steering group was formed. To the programme design process, AAS brought an in-depth understanding of existing funding landscape surrounding African science research and where additional support was needed, as well as an ability to maximise coherence, coordination and synergies across programmes.²⁶ According to AAS stakeholders, the early collaboration between RS and AAS was an ‘excellent’ partnership, with a strong sense of equity and co-ownership between the partners.²⁷ As part of the programme design, a ToC for the FLAIR programme was co-developed.²⁸ Being locally grounded and cognisant of the research needs of many African countries, AAS staff played a key role in shaping the FLAIR ToC.²⁹ According to one AAS interviewee, while this arrangement was broadly effective, it also fell short of a full co-design process.³⁰

The FLAIR ToC has proved a useful document for the programme in several respects. On the one hand, it has provided the key tool for the development of an M&E framework for the FLAIR programme.³¹ At the same time, according to one interviewee, it has also proved a useful educational tool for panel members and reviewers – acting, alongside other guidance, as a reminder that they need to think more widely than research excellence and consider other elements, such as capacity building and ODA compliance.³²

Analysis of FLAIR awards indicates that, in most cases, award holders do not have a ToC or impact strategy in place. In response to a survey, for example, only 33% of fellows and 21% of collaboration grant holders reported that such arrangements were in place (see Figure 7 below). While this is perhaps unsurprising given the nature of FLAIR awards (ToCs being less suited to individual fellowships than to large multi-partner research projects), the finding also suggests scope for more emphasis on the clear conceptualisation of project-level pathways to impact.

²⁶ P18/P19 Interview.

²⁷ P9 Interview.

²⁸ FLAIR programme Theory of Change (V2.2. Nov 2019).

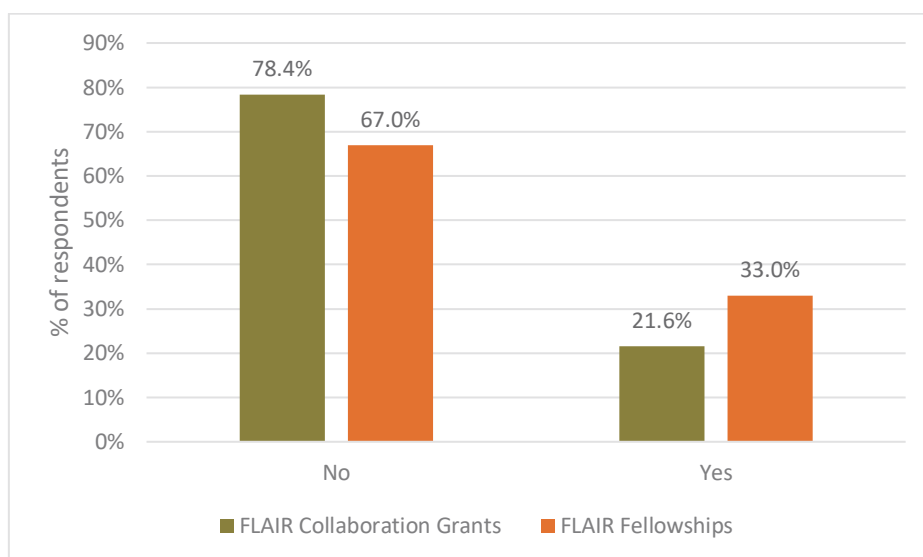
²⁹ P18/P10; P9 Interview.

³⁰ P9 Interview.

³¹ P22 Interview.

³² M25.

Figure 7 Project design characteristics of FLAIR awards – project-level ToC/pathway to impact/impact strategy



Source: GCRF fund-wide survey, 2022

3.1.2. Commissioning and selection of portfolio to deliver against challenge

The FLAIR programme has well-established mechanisms to ensure that research it supports is aligned to the programme's objective of supporting high-quality research that addresses GCRF challenge areas. All FLAIR applications must include a statement demonstrating how the research will directly address development problems as its primary objective, as well as the alignment of the research to GCRF challenge areas.³³ Applicants are also required to state how the proposed research activities will promote the economic development and welfare of a developing country (or countries).³⁴ The commissioning process involves three stages: initial review by FLAIR 'panel members',³⁵ independent review by subject-specific experts³⁶ and a final interview panel. Across all three stages, reviewers are provided with guidance on the need to ensure compliance with ODA and GCRF requirements.³⁷ FLAIR programme staff also conduct internal checks to ensure the ODA compliance of applications.³⁸ There have been some cases in which otherwise successful applications had been deemed unsuccessful because they were not ODA-compliant.³⁹

The FLAIR commissioning process also considers how the funded research will address specific development considerations, i.e. criteria for ODA R&I excellence, though here the picture is more mixed. In what follows, we review the treatment of five key development

³³ FLAIR_Fellowships_Scheme_Notes.

³⁴ FLAIR_Fellowships_Scheme_Notes.

³⁵ Panel members are individuals who have agreed to be involved in the review of FLAIR applications for a three-year term. Panel membership is split 50/50 between RS and AAS-appointed individuals. Panel members are selected based on their expertise relevant to the subject areas covered by each panel and their experience in conducting research in developing country contexts. P21 interview.

³⁶ Unlike panel members, independent reviewers are approached to review applications on a case-by-case basis based on their specific subject matter expertise. P21 interview.

³⁷ FLAIR_Collaboration_Grants_Scheme_Notes; A Panel Minutes FLAIR 2021; Panel guidance 2021 Round; Panel guidance_FLAIR Collab Grants; FLAIR Independent Review Guidance Notes 2021; FLAIR_Renewal_Scheme_Notes; FLAIR_Collaboration_Grants_Scheme_Notes; FLAIRC~1; GRANTS~1; GRANTS~3. Interview P21.

³⁸ P10 interview.

³⁹ P10 interview.

considerations (i.e. ODA R&I excellence) within the commissioning process: relevance, coherence, gender responsiveness, social inclusion and poverty.

3.1.2.1. *Relevance to local needs*

FLAIR ensures that commissioned research is relevant to local development needs, relevance which is strengthened by awards being led by African researchers. In demonstrating the relevance of their research to development challenges, FLAIR applications must identify the specific country (or countries) that will directly benefit from the proposed research activities, and explain how this benefit will be realised.⁴⁰ The application process makes clear that applicants should provide evidence on the nature and scale of the development problem within the specific context and how the research will contribute to addressing these problems. As noted above, applicants are also required to state how the proposed activities will promote economic development and welfare in specific contexts, including the local pathways through which the research is expected to deliver impact. The need for FLAIR applications to address local needs is considered at all three stages of the commissioning process.⁴¹

Analysis of FLAIR awards has found that the relevance of research activities to local country and/or regional needs is clearly articulated in all cases. In response to a survey, 99% of FLAIR fellows reported that their research was relevant to the local communities within the relevant target country. Local development problems addressed by FLAIR research include insecticide resistance in malaria vectors in the Cameroon⁴², metal contamination of water resources in South Africa⁴³, and the links between sexually transmitted infections and premature births in Kenya.⁴⁴ As FLAIR projects are led by researchers based in African institutions, this has evidently strengthened alignment with local needs.

3.1.2.2. *Coherence*

FLAIR's commissioning process places limited emphasis on ensuing coherence between awards. As noted earlier, all FLAIR awards must demonstrate their relevance to a GCRF challenge area. This helps to ensure alignment of awards with the GCRF portfolio as a whole.⁴⁵ Beyond this, however, the commissioning process has limited mechanisms to ensure coherence, either between FLAIR awards or between the FLAIR cohort and the wider GCRF portfolio. Rather than reviewing awards for their coherence with one another, the commissioning process has instead prioritised the quality of applications, through the process described above.⁴⁶ Independent reviewers have thus considered applications in isolation, without a view of the wider portfolio of FLAIR research.⁴⁷ The need to ensure diversity of subjects has, however, been emphasised by programme officials.⁴⁸ According to one interviewee, achieving coherence between FLAIR and the wider GCRF portfolio (beyond alignment to GCRF challenge areas) presents a particular challenge given the lack of oversight

⁴⁰ FLAIR application data.

⁴¹ P21 interview; P23 interview.

⁴² A6 Award analysis table.

⁴³ A18 Award analysis table.

⁴⁴ A20 Award analysis table.

⁴⁵ (FLAIR Independent Review Guidance Notes 2021) (FLAIR_Scheme_Notes_2021) (FLAIR_Collaboration_Grants_Scheme_Notes) (Panel guidance 2021 Round) (Panel guidance_FLAIR Collab Grants)

⁴⁶ P5 interview.

⁴⁷ P23 interview.

⁴⁸ P5 interview.

of the GCRF portfolio as a whole, and the absence of cross-funder mechanisms for alignment and linking.⁴⁹

Notably, while efforts to establish coherence between awards are limited at the commissioning stage, there have been considerable efforts to promote coherence and collaboration between FLAIR fellowships post-award. These are described in more detail in section 3.1.4 below.

3.1.2.3. Gender equality

The FLAIR programme has sought to promote gender balance among FLAIR award holders.

FLAIR calls have encouraged applications from women (as well as other under-represented groups) and the gender of applicants has been considered as part of the commissioning process.⁵⁰ While consideration of gender does not form part of the review processes during the first two stages, the gender of applicants may be considered at the final interview panel stage.⁵¹ According to interviewees, in certain circumstances the gender of applicants has been used as a 'tiebreaker' to help make final decisions on the selection of fellows.⁵² Efforts have also been made to promote gender diversity among review panel members.⁵³ Thus far, FLAIR has refrained from the use of quotas as a means of ensuring gender balance.

The gender of FLAIR applicants and awardees is monitored, including breakdowns at the application, longlisting, shortlisting and offer recommendation.⁵⁴ Table 6 below provides a breakdown of the gender of FLAIR applicants and award holders for the 2019 and 2020 funding rounds. In both funding rounds, the proportion of female candidates increased between application and offer recommendation stage. Source: Royal Society

Table 7 presents that same data for FCG holders for the 2020 and 2021 rounds. In 2021, over half of collaboration grant holders were female.

Table 6: Gender of FLAIR applicants and awardees – fellowships

Stage	Male	Female	Prefer Not to Say	Total	% Female
2019 Round					
Applicants	502	260	4	766	33.9%
Awardees	18	11	0	29	37.9%
2020 Round					
Applicants	279	115	1	395	29.1%
Awardees	17	13	0	30	43.3%

Source: Royal Society

Table 7: Gender of FLAIR applicants and awardees – collaboration grants

⁴⁹ P1 interview.

⁵⁰ (FLAIR_Scheme_Notes_2021) (Panel guidance 2021 Round)

⁵¹ P5 interview.

⁵² P5 interview.

⁵³ P5 interview.

⁵⁴ (Grants Minutes _ FLAIR A_and B_Final_Grants_Committee) (GRANTS~1) (GRANTS~3) (Minutes FLAIR 2021_B Panel) (Minutes FLAIR 2021_B Panel – Addendum) (MINUTE~3) (FLAIRC~2)

Stage	Male	Female	Prefer Not to Say	Total	% Female
2020 Round					
Applicants	16	6	0	22	27.3%
Awardees	15	6	0	21	28.6%
2021 Round					
Applicants	7	8	0	15	53.3%
Awardees	7	8	0	15	53.3%

Source: Royal Society

At award level, many FLAIR awardees have established research teams that comprise a mix of both male and female staff. However, most awardees reported that decisions on recruitment had been driven by applicants' suitability to the role, rather than by an explicit focus on recruitment by gender. Indeed, in response to a survey, **only 21% of fellows and 21% of collaboration grant holders reported that they had a gender inclusion plan in place.** In response to the same survey, only a small proportion of FLAIR award holders (12.7% of fellows and 8.8% of collaboration award holders) reported that they had received gender and inclusion expert advice from the FLAIR programme.⁵⁵

While emphasising the need to ensure gender balance within FLAIR cohorts, the commissioning process has not actively sought to commission research with a gender focus. In contrast to statements on ODA compliance, for example, FLAIR applications are not required to provide a statement on the gender dimensions of the research. The lack of a specific question on gender within the application process does not preclude consideration of the potential gender dimension of research.⁵⁶ Indeed, according to interviewees, if the proposed research contained a gender aspect, this was likely to be considered a positive by proposal reviewers.⁵⁷ Analysis of FLAIR awards indicates that most awards do not have a specific gender dimension, though in many cases there is a good awareness of the potential relevance of the research to women specifically. In some cases, challenges facing women form a key focus of the research.

3.1.2.4. Social inclusion

As with gender, the FLAIR programme's efforts to promote social inclusion of other disadvantaged groups have focused more on the composition of award holders than on the nature of the research funded. Compared to gender, however, efforts to ensure broader social inclusion are less developed. Call documentation encourages 'under-represented groups' to apply for FLAIR awards, but with little evidence of further efforts to reach such groups. Moreover, beyond efforts to promote gender balance, the commissioning process does not place emphasis on ensuring the inclusion of specific disadvantaged groups. (As discussed below, however (see Section 3.1.2.5), there have been some limited efforts to expand the geographical diversity of FLAIR fellows in response to recognition of the high proportion of FLAIR fellowships within certain countries.)

Whether or not the research addresses problems affecting disadvantaged groups also does not appear to be an explicit consideration of the commissioning process, though again this

⁵⁵ Survey data.

⁵⁶ P10 interview.

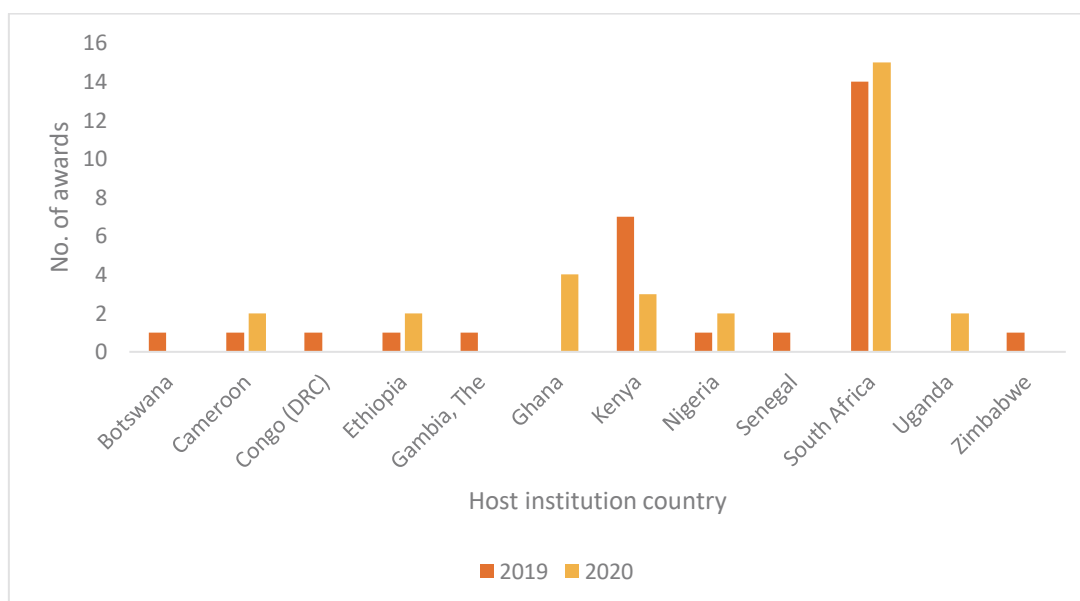
⁵⁷ P10 interview.

does not prevent reviewers from looking favourably on projects that do possess an social inclusion dimension.⁵⁸ Analysis of awards indicates that a small number of FLAIR awards have focused on issues affecting disadvantaged groups, one example being a project focused on water filtration technologies for informal urban communities, many of which comprised vulnerable migrant and minority groups.⁵⁹

3.1.2.5. Fairness

Overall, FLAIR is notable in the wider GCRF portfolio by awarding funding directly to African researchers and their host institutions, which offers a strong basis for promoting fairness from a UK-LMIC perspective. Nevertheless, from a within-Africa perspective, a key challenge for the FLAIR programme has been the high proportion of successful applicants from a relatively small number of well-established South African universities. The issue reflects the more developed R&I capacity of a number of South African universities compared to the rest of the subcontinent, resulting in a large number of high-quality applications from a narrow institutional base. This challenge was anticipated at the outset of the programme, given that the priority focus in the call on the quality of the proposals would favour the better resourced institutions.⁶⁰ Relatedly, the engagement of institutions in Francophone countries has been limited compared to that of institutions in Anglophone countries, and this is also recognised by the programme.⁶¹ Figure 8 presents data on the number of FLAIR fellows by country of institution across the 2019 and 2020 funding rounds.

Figure 8 Number of FLAIR fellowships per country of host institution by funding round



Source: Royal Society

In a positive initiative, FLAIR has monitored the representation of countries within each cohort, from the application to the offer stage.⁶² In a similar way to gender, the country of the host institution has also been incorporated into the commissioning processes in an informal way – in some cases, for example, the host institution country has been used as a ‘tiebreaker’ when

⁵⁸ P6 interview.

⁵⁹ A18 Award analysis table.

⁶⁰ P18/P19 interview; P4 interview; P20 interview.

⁶¹ P8 interview.

⁶² A Panel Minutes FLAIR 2021; FCG 2021_Minutes; GRANTS~3.

making final decisions regarding which awards to fund.⁶³ Notwithstanding these efforts, FLAIR awards have continued to be concentrated with a small number of South African institutions.

The challenges posed by this have been the subject of frequent discussions at programme level, indicating that the programme team are taking proactive steps to mitigate this trend.⁶⁴

One measure considered by programme staff has been a quota on the number of fellowships at South African institutions. However, the idea of a countrywide quota has also prompted concerns, for two main reasons. Firstly, concerns have been raised that with the exception of a small cluster of South African universities, many other South African institutions are on a level playing field with other sub-Saharan African institutions, and a countrywide quota would unfairly discriminate against them and neglect their capacity needs.⁶⁵ Secondly, it has been highlighted that many fellows at South African institutions are not themselves South Africans but are from nations across the African continent. As such, a countrywide quota would unfairly limit their capacity, especially as these researchers might use their knowledge and new skills to make impact in their home country.⁶⁶ At the time of the third cohort of FLAIR awards, an institutional quota was being considered as a possible alternative approach.⁶⁷ To expand the reach of the programme in Francophone countries and institutions, the RS/AAS produced marketing material and 'top tips' in French as well as English.⁶⁸ In addition, the FLAIR programme has also considered establishing partnerships with relevant governments and non-governmental organisations (NGOs), as well as the recruitment of more Francophone reviewers.⁶⁹

3.1.2.6. *Poverty*

While the contribution of research to poverty reduction is considered within the FLAIR commissioning process, this is done without a clear definition of poverty, resulting in differing interpretations across the programme. According to one programme-level interviewee, when considering the potential contribution of the research to poverty reduction, the key consideration of proposal reviewers was the 'affordability' and 'accessibility' of research outputs.⁷⁰ More broadly, however, there has also been a tendency to conflate poverty reduction with economic development. This is evident within the FLAIR application form – the only related question asked of applicants being on the contribution of the proposed activities to the economic development and welfare of a developing country.⁷¹ Interviews with FLAIR award holders also highlighted differing interpretations of what it meant to address or reduce poverty. In some cases, the relevance of the research to poverty was framed in terms of the affordability of outputs to the poorest communities.⁷² In other cases, the poverty relevance was framed in terms of the significance of the development challenge addressed by the research for the poorest social groups – research addressing the development challenge thus being of relevance to poverty.⁷³ Furthermore, in other cases award holders spoke generally about how their project would generate economic benefit for their countries, rather

⁶³ P6 interview.

⁶⁴ P10 interview.

⁶⁵ P18 & P19 interview; P5 interview; P1 interview.

⁶⁶ P1 interview.

⁶⁷ P2 interview.

⁶⁸ Comments tracker

⁶⁹ P8 interview.

⁷⁰ P6 interview.

⁷¹ Application data.

⁷² A20 Award analysis table.

⁷³ A12 Award analysis table.

than outlining a more specific contribution to those living in conditions of poverty.⁷⁴ The latter framing, it seems, is underpinned by the notion of Africa as an impoverished continent, with any research addressing problems of African countries thereby having relevance to poverty.

3.1.3. Addressing barriers to interdisciplinary working

While FLAIR does not require the research it supports to have an interdisciplinary dimension, the programme has supported research adopting interdisciplinary approaches, especially through collaboration grants. The interdisciplinarity of the research is considered at all three stages of the commissioning process, with reviewers at each stage considering not just whether or not the research is interdisciplinary, but also how this interdisciplinarity will be achieved in practice.⁷⁵ The wide-ranging expertise of panel members helps to ensure that applications, where relevant, can be assessed from different disciplinary perspectives.⁷⁶ While the extent of interdisciplinarity is considered in the context of fellowships, it appears to have been more of a focus in the context of collaboration grants – the latter being seen as a key way of fostering new interdisciplinary collaborations between UK and African researchers.⁷⁷ In response to a survey, 92.5% of fellows and 75%⁷⁸ of collaboration grant holders reported that their award had supported engagement in cross-sectoral multidisciplinary R&I. Analysis of awards highlighted a small number of cases in which FLAIR fellowships and collaboration grants have adopted interdisciplinary or multidisciplinary approaches.⁷⁹ In some cases, where research remained at an early stage, interdisciplinarity was seen as a potential future step for the project once the research had reached a more advanced stage.⁸⁰

3.1.4. Cohort building

The FLAIR programme has created opportunities for collaboration and cohort building between FLAIR fellows, with AAS playing a key role. Prior to Covid-19, this included face-to-face networking events at the inception of each FLAIR cohort, with each fellow delivering a presentation on their proposed research. While the pandemic has prevented these face-to-face engagements, RS and AAS have established virtual alternatives, including regular 'FLAIR teas', in which fellows provide updates on their research progress.⁸¹ There have also been instances in which the FLAIR programme has made intentional efforts to create specific links between FLAIR fellows, for example where a potential synergy of research interests has been identified.⁸² In response to a survey, 86.5% of FLAIR fellow respondents reported that they had received programme support in the form of networking opportunities.⁸³ In award-level interviews, several FLAIR fellows provided examples of new collaborations that had been established as a result of such engagements.⁸⁴

Alongside internal cohort building activities, there have also been efforts to create wider networking opportunities for FLAIR fellows, including events to facilitate networking between

⁷⁴ A3 Award analysis table.

⁷⁵ P23 interview; P6 interview; P5 interview.

⁷⁶ P5 interview.

⁷⁷ P10 interview; P9 interview.

⁷⁸ The number of survey responses from collaboration grant holders was low (n=4), so this number should be treated with caution.

⁷⁹ A6 Award analysis table; A15 Award analysis table.

⁸⁰ A19 Award analysis table; A13 Award analysis table; A18 Award analysis table.

⁸¹ P10 interview.

⁸² P21 interview.

⁸³ Survey.

⁸⁴ A13 Award analysis table.

FLAIR fellows and other researchers funded by RS and AAS.⁸⁵ By comparison, networking opportunities between FLAIR fellows and researchers within the wider GCRF portfolio have been more limited, centring on raising awareness of a GCRF portal through which FLAIR fellows can learn about wider GCRF research.⁸⁶ There have also been limited efforts to build networks between FLAIR fellows and researchers funded under the broader National Academies' Resilient Futures initiative, within which the FLAIR programme sits.⁸⁷

3.1.5. Day-to-day programme management

Interviews with award holders demonstrated broad positivity regarding RS's and AAS's management of the FLAIR programme. In responding to award holder queries, RS and AAS staff have been responsive, supportive and adaptive, including in response to challenges posed by Covid-19.⁸⁸ Data from the survey found that 100% of responding fellows felt that they had received some support from RS as the funding organisation, with this being the case for 69% of collaboration grant holder respondents (Figure 2).

While there is widespread recognition that day-to-day programme management has been supported, areas where programme support has been received have been mixed. The number of fellows reporting to have received technical research advice or support with research design was low (35.2% and 23.8% respectively). By comparison, support for project implementation, for the pursuit of additional funding, and for obtaining no-cost grant extensions was more commonly experienced by fellows (50%, 55% and 54% respectively). On the whole, survey evidence suggests that collaboration grant holders have received less programme support than fellows, with application for no-cost grant extensions the most common area in which support had been received (36%) (Figure 9).

ODA funding was reduced by the UK government at short notice in early 2021. This affected all GCRF programmes, and the timing meant that FLAIR programme managers had limited room to mitigate the impact on award holders. In some cases, however, award holders were critical of the way in which the cuts to FLAIR funding have been managed. Key issues highlighted include delays in the communication of the funding cuts, thereby giving award holders limited time to make alternative plans, and lack of wider support provided at the time of announcing the cuts.⁸⁹ Interviewees at the programme level pointed to the rapid implementation of the ODA funding cut decision by the UK government, which affected the ability of the FLAIR programme to communicate effectively with award holders.⁹⁰ Programme-level interviews have emphasised that FLAIR managers provided such support as they could, such as video calls with award holders and greater flexibility around requests for extensions. The programme's provision of additional support to award holders at the time of announcing the cuts may have helped fellows to develop alternative plans for funding their research, and at the very least helped to ensure that the reasons for the funding cut decision were understood.

⁸⁵ P21 interview; P9 interview; P10 interview.

⁸⁶ P21 interview.

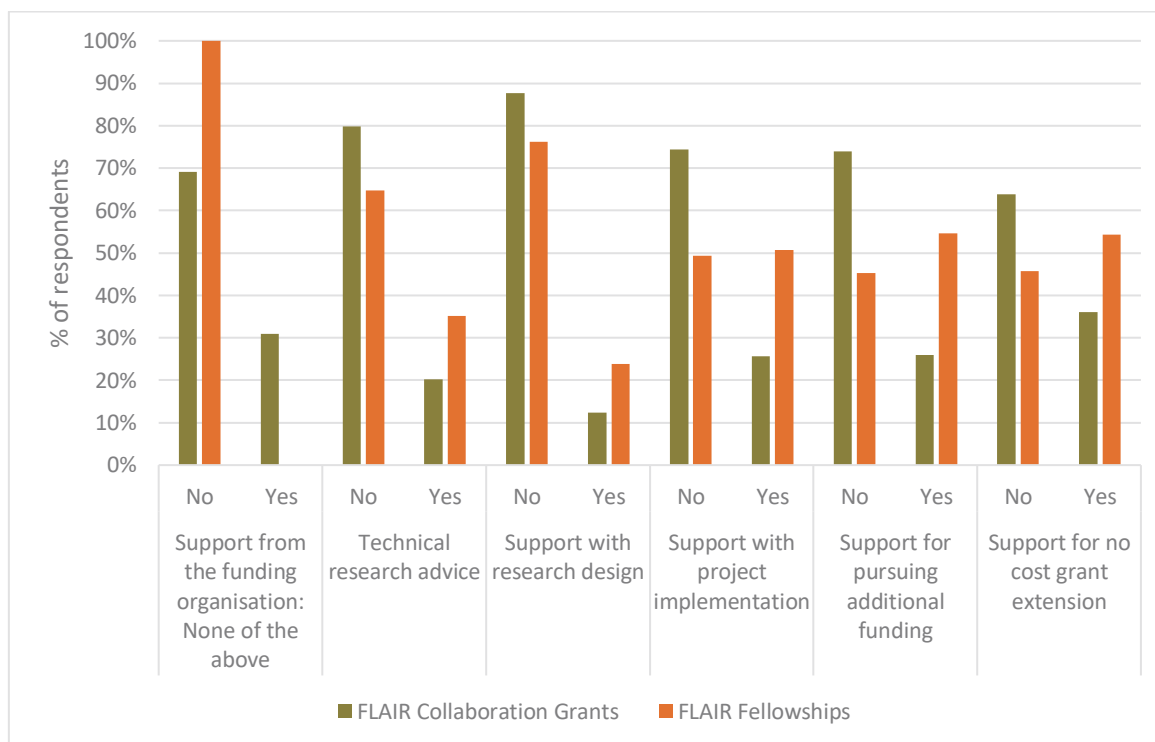
⁸⁷ RF Programme Impact Report - Executive Summary.

⁸⁸ See for example: A6 Award analysis table; A12 Award analysis table; A19 Award analysis table.

⁸⁹ AX interview; AY interview; A31 interview.

⁹⁰ P18/P19 interview.

Figure 2 Type of support received from the FLAIR programme



Source: GCRF fund-wide survey, 2022

3.1.6. M&E and regular reporting

FLAIR has well-established M&E processes in place. Monitoring of the FLAIR programme centres around the collection of annual progress reports and quarterly financial reports from fellows. Areas covered by annual reports align broadly with the FLAIR ToC and include capacity development (including training, mentoring and career progression), publications, presentations and stakeholder engagement, as well as challenges faced in implementation of the research. Alongside these monitoring mechanisms, FLAIR has also been more comprehensively evaluated as part of the National Academies Resilient Futures programme evaluation and the evaluation of the GCRF.⁹¹ According to one interviewee, findings from these evaluations have been fed back into RS (as well as other national academies) to enable them to reflect on themes identified and make adjustments.⁹²

In addition to formal M&E mechanisms, **programme staff also monitor progress of awards through more informal interactions with fellows.**⁹³ This has enabled the programme to provide appropriate support to fellows while also enabling it to adapt and develop in response to feedback from fellows. Through informal interactions, for example, the programme has also improved its understanding of individual fellows' local research conditions and the forms of support needed to facilitate research and capacity building in different contexts.⁹⁴ Programme adaptations made in response to fellows' feedback include changing the timeline for

⁹¹ P22 interview.

⁹² P22 interview.

⁹³ P22 interview.

⁹⁴ M26.

submission of FCG applications to ensure that fellows have sufficient time to contact potential collaborators and prepare applications together.⁹⁵

While existing M&E mechanisms – both formal and informal – provide a means to collect various forms of evidence regarding the processes and impacts of the FLAIR programme, **there is arguably more that could be done to leverage monitoring processes to produce data relevant to GCRF’s core development considerations.** While gender data is collected throughout the commissioning process, for example, such data does not appear to be systematically monitored with respect to other social categories with a view to promoting wider social inclusion. Moreover, there is also scope to extend gender (and other) monitoring to include data on the wider study teams associated with FLAIR awards (this being something which RS has done for other programmes) as well as on the composition of programme-level review panels.⁹⁶

As individual fellowships and small collaboration grants, most FLAIR awards are naturally limited in their formal M&E processes. Interviews with fellows highlighted that in most cases progress is monitored informally by tracking publications against planned outputs.⁹⁷ In some cases, awards have better-established monitoring processes, including regular meetings with research support staff to review progress and plan forthcoming activities.⁹⁸ While such processes hinge on the ability of host institutions to provide this support, there may be scope for future programmes to promote stronger monitoring processes at award level, drawing on the example of awards where this has been done effectively.

3.1.7. Institutional relationships

RS has made concerted efforts to ensure the meaningful involvement of AAS in the FLAIR programme. As described above, for example, AAS played a key role in helping to shape the FLAIR programme during its early stages. The relationship between RS and AAS on FLAIR has been described by interviewees on both sides as a ‘co-ownership’ model, with shared responsibilities on both sides.⁹⁹ This co-ownership model is considered to have been highly effective – ‘a real meeting of minds’, according to one interviewee.¹⁰⁰ At the same time, according to AAS stakeholders, such a co-ownership model should represent a stepping stone towards full African ownership of the FLAIR programme.¹⁰¹ While interviews suggest that RS shared this longer-term vision, **the FLAIR programme lacked a clear time frame for the switch to full AAS ownership or a detailed plan for how it would be implemented in practice.**¹⁰² The lack of clear direction in this respect has been a source of frustration for AAS.¹⁰³

⁹⁵ FLAIRC~1.

⁹⁶ P22 interview.

⁹⁷ A18 Award analysis template.

⁹⁸ A12 Award analysis table; A13 Award analysis table.

⁹⁹ P18/P19 interview; P9 interview.

¹⁰⁰ P9 interview.

¹⁰¹ P9 interview.

¹⁰² P18/P19 interview.

¹⁰³ P4 interview.

3.2. EQ 2: To what extent are structures and processes in place to strengthen R&I capacity in LMICs and the UK?

Box 4. Structures and processes in place to strengthen R&I capacity

Capacity development is a primary criterion for FLAIR awards, and some very strong examples of capacity building are apparent in several awards, underpinned by the direct management of grants by the award holders. **However, the assessment of capacity building has been open to different interpretations** and was not supported by a programme-level definition or framework until later rounds. Another key criterion of the programme, scientific excellence, has tended to be prioritised, leading to a skew in the kinds of institutions and geographies that benefited from FLAIR awards. Related to this this, it can be seen that **considerations of capacity development and scientific excellence can be in conflict**. Simply put, strong, well-equipped institutions are better positioned to complete world-leading research than those less well-established institutions. As such, unsurprisingly, a disproportionate number of awards have gone to South African institutions. This allocation of awards raises questions around the fairness of the programme's capacity building efforts.

Our approach to answering the EQ

EQ 2 focuses on how the programme has aimed to improve capacity in sub-Saharan Africa and what the effects of that are. We look at how capacity has been targeted across levels with individual researchers, students and junior researchers, and institutions themselves. To answer the EQ for FLAIR, we looked at the following criteria:

- Capacity support that aligns with good practice provided to individuals, organisations and/or R&I infrastructure
- Clearly defining and scoping capacity building
- Prioritising capacity needs
- Fairness considerations integrated.

3.2.1. Capacity support that aligns with good practice provided to individuals, organisations and/or R&I infrastructure

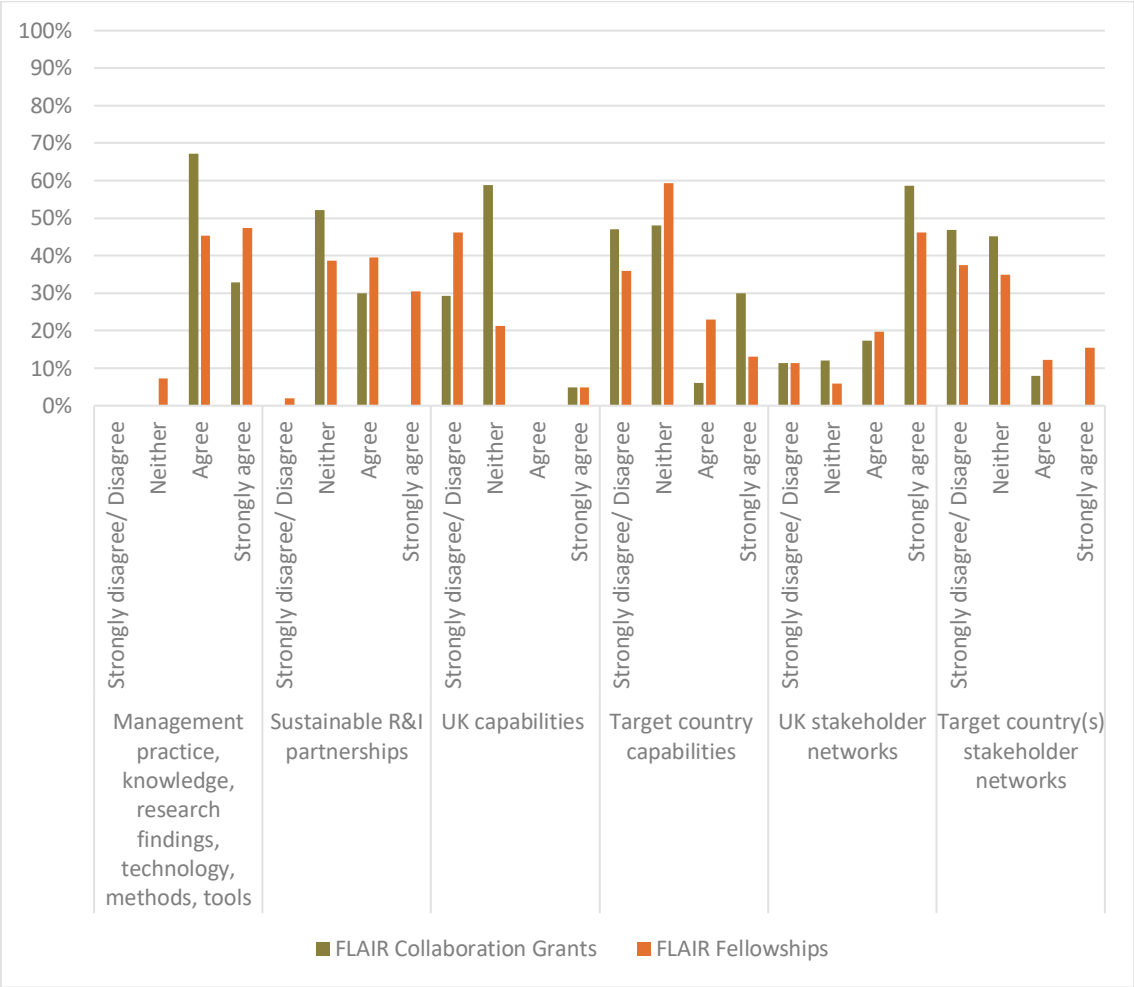
Some very strong examples of individual, ECR and institutional capacity building are apparent across FLAIR awards. This is reflected in survey results, as 95.2% of FLAIR fellows sampled agreed that the programme had developed capabilities within their country, across a range of dimensions, as shown in Figure 10. While the individual fellow has perhaps been the focus of FLAIR's capacity development needs assessment, a myriad of activities aiming to support individual fellows, ECRs and institutions have taken place. These are highlighted below.

3.2.1.1. Individual fellows

The individual has been the primary focus of FLAIR capacity building efforts and is where most progress has been made. In all of the awards surveyed, the individual fellow had significantly advanced their research career and leadership capacities. In allowing fellows to focus at least 80% of their time on research instead of on teaching and administrative

responsibilities, they have been able to improve their research skills.^{104, 105} FLAIR has enabled fellows to complete new analyses and gain familiarity with new research techniques, spanning from the use of electronic records (Research Electronic Data Capture (REDCap)) in clinical trials to fieldwork with smallholder farmers.¹⁰⁶ These kinds of skill improvement have, in turn, led to FLAIR fellows enhancing their track record, improving their likelihood of winning future grants and collaborating with world-class researchers.¹⁰⁷

Figure 10 FLAIR responses on project outcomes



Source: GCRF fund-wide survey 2022

Training activities organised by RS and AAS have also enabled the FLAIR fellows to develop capacity, particularly with regard to leading a research team. Many fellows spoke of the benefit of this leadership training; as one remarked, ‘no doubt [it] started shaping my leadership skills and ability to management [sic] a team in the right direction’.¹⁰⁸ FLAIR has offered a range of training opportunities, including leadership and entrepreneurship training, science communication, engaging with policy and industry, and gender awareness training.

¹⁰⁴ A15 interview.

¹⁰⁵ A1 interview.

¹⁰⁶ A17 interview, A13 interview.

¹⁰⁷ A10 interview.

¹⁰⁸ A10 2020 Progress Report.

Finally, the mentorship possibilities offered by FLAIR have also enabled individual capacity to improve, widening networks and assisting in skills development. RS and AAS ensured that all fellows had a mentor, typically a professor at an African institution, to offer independent support and advice to the fellow.¹⁰⁹ One fellow noted that not only did mentors bring in expertise from other research areas but they provided support on career advice and personal well-being.¹¹⁰ Interviewees also noted that RS and AAS proactively sought out mentorship options and approached potential mentors on fellows' behalf.¹¹¹

Details on how fellows have boosted their publication outputs and received promotions and awards are considered in Section 4.4. **Error! Bookmark not defined.**

3.2.1.2. *Students and ECRs*

FLAIR has also supported capacity of students and ECRs as a primary goal. Beyond funding for the individual, all awards have funding to enable the training of a team of MSc and postdoctorate students who complete research. Alongside providing funding for the qualification and learning, most FLAIR students have actively been involved in the research process, gaining scientific laboratory and analysis skills.^{112, 113} However, this is not uniformly the case, as at least one fellow reported struggling to include their students into the research project.¹¹⁴

Notably, new PhD students have not been funded by the FLAIR fellowship for the most part, as the initial funding was provided for only two years.¹¹⁵ Some fellowships did, however, provide new funded research opportunities for existing PhD students.¹¹⁶

3.2.1.3. *Institutions*

In many cases the wider university and research environment has been improved by the fellowship. Tangible improvements have been made via FLAIR funding, such as the purchase of laboratory equipment, which allows a wider pool of researchers to improve their research.^{117, 118, 119} In some cases, students and researchers at other universities have been able to use the equipment, developing the wider university ecosystem's research capabilities.¹²⁰ Capacity-building endeavours of this kind have the potential to be long-lasting too, as equipment can remain in the institute and continue to be used well after the end of the fellowship.¹²¹ One interviewee was sceptical of capacity building of this sort, however, remarking that 'Africa is already littered with fancy equipment that no one knows how to use'.¹²² Similarly, in some cases, concrete improvements have been made in African institutions' policies and grant management systems, as a result of receiving FLAIR funding directly.¹²³ A due diligence

¹⁰⁹ P6 interview.

¹¹⁰ A1 interview.

¹¹¹ P2 interview.

¹¹² A15 2019 Progress Report.

¹¹³ A3 interview.

¹¹⁴ A13 interview.

¹¹⁵ FLAIR_Scheme_Notes_2021.

¹¹⁶ A13 interview.

¹¹⁷ A7 interview.

¹¹⁸ A10 interview.

¹¹⁹ A3 interview.

¹²⁰ A7 interview.

¹²¹ A10 interview.

¹²² P11 interview.

¹²³ P20 interview.

procedure, undertaken by an external audit company, occurred at all FLAIR institutions before the delivery of the award, identifying areas for improvement, such as data management, maternity pay, whistleblowing, corruption, safeguarding, etc.¹²⁴ In some organisations, the improvements made have enabled them to gain certification of good practice grants management, an international standard for good financial reporting developed by the AAS.¹²⁵ Interviewees have said that this allows the university to be more competitive for other international funding opportunities.¹²⁶ New policies introduced post due diligence, such as safeguarding and equality, diversity and inclusion (EDI), have also helped to improve the research culture of some institutions.¹²⁷ In some institutions, however, no recommendations were made at all as relevant institutional policies were in place prior to FLAIR.

3.2.2. Clearly defining and scoping capacity building

While capacity development is clearly a priority for the assessment of awards, and – as shown above – has been achieved at many levels, it has never been clearly defined.

Reviewers and panellists were continuously reminded to consider it as a ‘primary criteria’ in their assessment,¹²⁸ but no strict definition was provided for assessment purposes; certain examples were provided to reviewers, such as the support of students or the fellow’s career advancement, but no consistent, formal definition was ever provided by the programme.¹²⁹ As such, definitions of capacity building tended to be applicant-led, and prospective fellows could provide any examples of research capacity, ‘whether that’s for themselves and their research team, for their institution, for their country, the African continent, [or] for their discipline in the continent’.¹³⁰ One interviewee noted that applicants tended to consider capacity building at individual level, focusing exclusively on how their own capabilities and careers would improve with the award.¹³¹ Learning from the previous round, the FLAIR programme had taken steps to better identify capacity needs: in the 2020 FLAIR fellowship application form, applicants were required to provide a statement on how the fellowship will contribute to the capacity development, both of them and their institution and of the relevant research field in Africa.

3.2.3. Prioritising capacity needs

There is some evidence that individual capacity building aims are in conflict with scientific merit, the primary consideration of the application. It was noted that, in some cases, individual capacity development was in tension with considerations of ‘scientific merit’, as some weak or flawed scientific proposals nonetheless showed a strong prospect of improving capacity.¹³² One interviewee commented that FLAIR was ‘elitist’ in its assessment of capacity building, focusing on the best scientists rather than those individuals and institutions most requiring support.¹³³ Relatedly, another interviewee said that FLAIR saw wider capacity

¹²⁴ P2 interview.

¹²⁵ See <https://www.aasciences.africa/ggc/standard>

¹²⁶ A21 interview.

¹²⁷ A22 interview.

¹²⁸ FLAIR Independent Review Guidance Notes 2021.

¹²⁹ Reviewers and panels were FLAIR Panel reviews were cognisant of this vagueness and the need for tighter definitions, ‘notably at the individual, host institution, and (developing) country levels’. While no concrete steps had been taken prior to the funding cut, implementing new guidance to applicants around the broad scope of potential capacity building was in consideration (FLAIR 2020 Interview Panel A Meeting Minutes).

¹³⁰ P21 interview.

¹³¹ P10 interview.

¹³² FLAIR 2020 Interview Panel A Meeting Minutes.

¹³³ P6 interview.

development as occurring through a vanguard of excellent individuals spreading good ideas and best practice across the university.¹³⁴ Of course, such a route to impact is dependent on that individual having the motivation to do so (it is not a requirement of FLAIR) and remaining within their institution long-term.

3.2.4. Fairness considerations integrated

The extent of AAS involvement, and the disproportionate number of awards going to South Africa raise questions around the fairness of capacity building.

There are three components of fairness that we considered with regard to capacity building.

3.2.4.1. *Fairness of the collaboration grants*

Collaboration grants were administered differently, with the funding going to the UK institution rather than the FLAIR Fellow. FCGs stressed the importance of 'equitable partnerships', but this was another concept that was never clearly defined, resulting in partnerships with a range of different levels of African involvement. FCGs were not included in initial thinking around the FLAIR fellowship¹³⁵ and were intended to accomplish a variety of goals, including 'contributing to building research capacity in the Host Organisations and countries where the FLAIR Fellows are based'.¹³⁶ Fairness and the concept of 'equitable partnerships' were a key part of this, as the need for the latter was stressed across all relevant programme documentation. However, 'equitable partnerships' were never clearly defined although there was some signposting to resources on equitable partnerships such as the Research Fairness Initiative within the scheme notes. Indeed, programme documentation has stated that applicants should use their discretion in determining the nature of the 'equitable partnership'. As a result of this ambiguity, many different kinds of partnership could be deemed 'equitable'. For example, some fellows have interpreted 'equitable' to mean 'benefiting all researchers', as one FCG holder remarked that 'capacity development is going both ways, not 50/50, but it's pretty close to it'.¹³⁷ In other cases, fellows have designed the collaboration grants to disproportionately benefit the African fellow and their country. These partnerships have tended to focus on providing opportunities to understand more about equipment that the fellow did not presently have in their own institution.¹³⁸ In at least one case, capacity development was not at all a focus of the FCG.¹³⁹

As a final point, several interviewees expressed confusion around why FCG funds were first awarded to the UK partner and then sent to the FLAIR fellow.^{140, 141} They thought that the direct transfer of FCG funds to FLAIR fellows would have been a fairer process, and align with the main fellowship programme that awarded funding directly to fellows.

3.2.4.2. *AAS involvement*

AAS' involvement in design and implementation of the programme led to enhanced capacity to manage fellowships and international partnerships. As highlighted previously, AAS were central to the administration of FLAIR, and their capacity as a society developed accordingly.

¹³⁴ P5 interview.

¹³⁵ P18 & P19 interview.

¹³⁶ FCG 2021_Minutes.

¹³⁷ A24 interview.

¹³⁸ A38 interview.

¹³⁹ A25 interview.

¹⁴⁰ P10 interview.

¹⁴¹ A38 interview.

For example, through FLAIR funding, AAS were able to fund a senior M&E officer.¹⁴² An interviewee said this hire allowed the AAS to improve their competencies in this domain across FLAIR and non-FLAIR activities.^{143, 144} Additionally, informal plans had been made to gradually move programme delivery responsibilities to AAS, developing their capacity and improving the equity of the partnership further.¹⁴⁵ The funding cuts have forestalled these plans, however.¹⁴⁶

3.2.4.3. *South Africa*

A disproportionate number of FLAIR fellows have been based in highly performing, well-developed South African universities, raising fairness concerns. Simply put, their institutional capacity needs are not as great as those of more disadvantaged sub-Saharan African universities. Indeed, one South African interviewee remarked that ‘I’m not sure if there is a difference [in capacity needs] between South Africa and UK partners’.¹⁴⁷ Programme staff were highly attuned to the issue of South African representation and were, pre-funding cut, considering several plans and strategies to redress the balance. One of these included considering limiting the number of fellowships at South African institutions. However, a countrywide quota was also seen as having its complications for two main reasons:

- Programme interviewees argued that aside from universities such as the University of Cape Town (UCT), South African institutions are on a level playing field with sub-Saharan African institutions and a countrywide quota would unfairly discriminate against them and neglect their capacity needs.¹⁴⁸ Instead, an institutional quota was being conceived for future cohorts of FLAIR awards.
- Secondly, interviewees argued that many fellows at South African institutions were not themselves South Africans but were from nations across the African continent. In their view, a countrywide quota would unfairly limit their capacity, especially as they would use their knowledge and new skills to make impact in their home country.¹⁴⁹

3.3. 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?

Box 5. Efficiency and proportionality of processes

- **Overall, the FLAIR processes were found to be effective and efficient.** Stakeholders across the piece found that the programme was efficient, from application to day-to-day management. **Fellows and other stakeholders have been impressed by the flexibility and adaptation** of the application process between calls. However, **financial reporting and fund transfer reporting processes were notable exceptions to the generally positive impression**, as these were perceived negatively by FLAIR fellows.

¹⁴² P9 interview.

¹⁴³ P9 interview.

¹⁴⁴ This M&E officer, alongside a host of other staff, is no longer at the AAS following the funding cuts.

¹⁴⁵ P18&P19 interview.

¹⁴⁶ P2 interview.

¹⁴⁷ A16 interview.

¹⁴⁸ P18 & P19 interview; P5 interview; P1 interview.

¹⁴⁹ P1 interview.

- **FLAIR was perceived by respondents to provide good VfM** although, as a counterbalance to this view, in some cases **the grant was considered too generous for the purposes**. VfM in fellowship awards is, however, difficult to assess at an award level in the absence of tailored metrics.

Our approach to answering the EQ

EQ 3 focuses on the efficiency and relative burden of processes involved in the FLAIR programme. For the purposes of this EQ we have focused on application, interview and reporting processes. We also consider how adaptive it has been and whether it has represented VfM. To answer the EQ for FLAIR, we looked at the selected criteria:

- Efficiency and timeliness of processes.
- VfM.
- Flexibility and adaptation.

3.3.1. Efficiency and timeliness of processes

Broadly, FLAIR processes were perceived by award and programme stakeholders alike to be efficient and timely. This can be seen across the application, financial reporting and review processes.

3.3.1.1. Application process

Stakeholders across the piece found that the programme was efficient. FLAIR fellows were satisfied with the programme's assessment procedures, describing them as comparatively light-touch, easy to navigate and well organised.¹⁵⁰ Interviewees had said that while the application was thorough and time-intensive, it was shorter relative to other grant applications.¹⁵¹ One interviewee declared that the FLAIR application 'was a dream', as for smaller national grants they would have had to write a significantly longer application (apparently around 50 pages).¹⁵²

There were some exceptions to this positive appraisal: one interviewee, while impressed with the organisation of processes, said that the application process discriminated against those 'people [who] aren't conversant with online technology', as they recalled the challenges involved in engaging elder referees and faculty with the FLAIR application platform.¹⁵³

On the whole, reviewers were as impressed as applicants with the efficiency of the programme application, and felt that mechanisms were in place to manage reviewer burden. Interviewees thought that to be time-intensive and resource-intensive, with one saying that a lengthy application would take around three hours to review, but worthwhile and necessary.¹⁵⁴ Other interviewees said that they had 'plenty of time to review proposals' and were not rushed,¹⁵⁵ and that the reviewer guidelines were clear.¹⁵⁶ FLAIR staff were cognisant of the need to reduce burden as much as possible, and endeavoured to match proposals with reviewer

¹⁵⁰ A31 interview; AY interview; A28 interview; P8 interview.

¹⁵¹ A31 interview.

¹⁵² A3 interview.

¹⁵³ A26 interview.

¹⁵⁴ P2 interview.

¹⁵⁵ P8 interview.

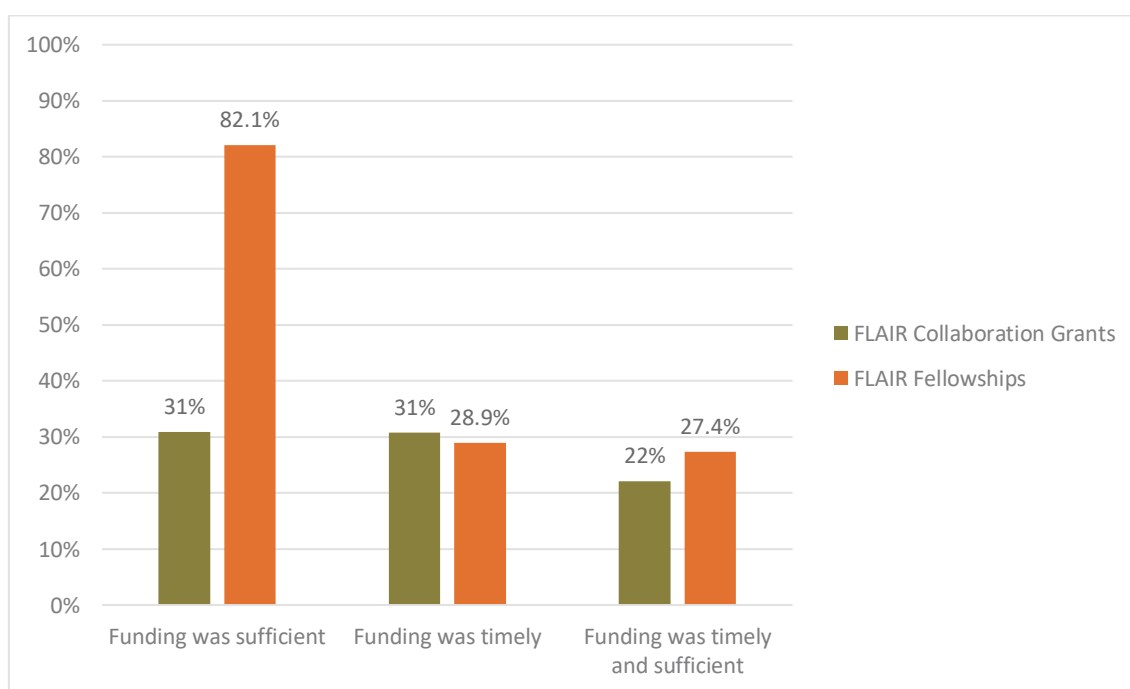
¹⁵⁶ P23 interview.

expertise.¹⁵⁷ One interviewee said that experts tended to be generalists because of the need to assess a variety of factors, such as project implementation, capacity building promise, etc., and some have had minimal experience working with developing countries.¹⁵⁸ This was not perfect, however, as one reviewer said they had been asked to review proposals that were not specific to their area.¹⁵⁹

3.3.1.2. Financial reporting

Financial reporting processes are an exception to this generally positive appraisal of award process, as FLAIR fellows perceived them negatively. Some fellows felt that quarterly reports were excessive and burdensome. One said that the financial reporting ‘takes considerable time’, especially as they did not have specific financial training and lacked specific finance personnel to help them with this burden.¹⁶⁰ In addition to this, funds had occasionally been delayed and had caused issues with regard to the purchase of consumables.¹⁶¹ One fellow noted that such delays, generally of the order of a month, made it harder to spend the money in time.¹⁶² This was clearly a widely held sentiment, as only 30% of FLAIR fellows surveyed thought that the funding was delivered in a timely fashion. However, interviewees also said that the FLAIR team was responsive to queries and that their communication was ‘efficient and responsive’.¹⁶³ Views on the delivery of funding are summarised in Figure 11.

Figure 11 Survey responses on the delivery of FLAIR funding



Source: GCRF fund-wide survey, 2022

¹⁵⁷ P1 interview.

¹⁵⁸ M28.

¹⁵⁹ P4 interview.

¹⁶⁰ A14 interview.

¹⁶¹ A15 interview.

¹⁶² A15 interview.

¹⁶³ A14 interview.

3.3.2. VfM

FLAIR has no formal means of assessing VfM¹⁶⁴ and there is no formal economic assessment/cost-benefit analysis of proposals. However, there are caps on some types of costs that can be claimed for (e.g. salary and overheads), and during the application assessment stage the panel determines if the amount of funding requested is appropriate for the proposed research.^{165, 166, 167, 168, 169} Some interviewees did cast doubts on RS's capacity to capture VfM in its funding decisions. One felt that VfM could be assessed only on a broad, programme level, but assessment would not be possible for individual fellowships or grants.¹⁷⁰ Another said that while RS may have some indication of VfM, they lack a quantitative indicator, and went on to say that RS will not have an exact idea about VfM for some time.¹⁷¹ For them, the issue of a time lag extended beyond VfM, saying the 'major impacts (of GCRF) won't be seen until much later' – up to 20 years for the indicators BEIS are most interested in.¹⁷²

FLAIR was considered by interviewees to provide good VfM, but in some cases the funding was considered too generous for the purposes. The majority view among interviewees was that FLAIR has been excellent VfM, however, some respondents expressed the view that the programme was exceedingly generous. This was a minority view, nevertheless in one example, one respondent said that the FLAIR fellowship was 'orders of magnitude' higher than comparable national funding opportunities, and it made them 'one of the best funded' researchers in the country. Relatedly, another interviewee said that differences in purchasing power (PP) between the UK and sub-Saharan Africa meant that the funding could be more impactful in sub-Saharan African countries.¹⁷³ By using the market exchange rate and not the PP exchange rate, FLAIR researchers were, in effect, better funded than a comparable investment in the UK. On balance, there is the potential that a less well-funded programme could have achieved some of FLAIR's central objectives. Fellows across the board saw the removal of teaching constraints and the freeing up of time as the most important feature of the programme. One could achieve this for less than £150,000 per year.

3.3.3. Flexibility and adaptation

The adaptability of FLAIR processes has been recognised as a key strength of the programme. The FLAIR programme has also demonstrated a capacity to adapt and adjust the application process. In an in-person feedback meeting conducted with the first cohort, programme staff stressed that these fellows were 'leading the way' and that they wanted to learn from them continuously. In addition to this, they conducted one-to-one meetings with fellows to inform programme design and delivery.¹⁷⁴ Adaptations made include changes to the timeline for submission of FCG proposals, based on feedback provided by fellows, to ensure that fellows have sufficient time.¹⁷⁵ The focus of calls has also shifted (with at least two years

¹⁶⁴ A VFM pilot was being modelled, and would have been incorporated into application, assessment and reporting had FLAIR continued.

¹⁶⁵ M51.

¹⁶⁶ M53.

¹⁶⁷ M54.

¹⁶⁸ M53.

¹⁶⁹ M54.

¹⁷⁰ M25.

¹⁷¹ M26.

¹⁷² M26.

¹⁷³ P23.

¹⁷⁴ P18&P19 interview.

¹⁷⁵ FLAIRC~1.

postdoctoral experience) to ensure higher quality in the applications received.¹⁷⁶ In 2021 a decision was made to provide interview panel feedback on applications to both successful and unsuccessful applicants, to ensure that they have opportunities to learn.¹⁷⁷

3.4. EQ 4: To what extent have the signature programmes made early progress towards their desired outcomes/impacts, and what evidence exists of these?

Box 6. Early progress towards desired outcomes and impacts

The principal achievements of FLAIR awards have been in the form of short-term outputs. In some cases, moreover, capacity building has been the primary output to date. While there are some early examples of FLAIR award holders engaging relevant stakeholders in research outputs, on the whole, evidence of wider outcomes and impacts is limited. This is not surprising given FLAIR's focus on ECRs, the relatively short lifespan of FLAIR awards and the significant disruption caused to FLAIR awards by the Covid-19 pandemic. By withdrawing funding for the renewal of FLAIR fellowships, cuts to ODA funding have posed a real threat to the translation of research outputs achieved to date into longer-term outcomes and impacts.

Our approach to answering the EQ

EQ 4 focuses on the extent to which the signature programmes have made progress towards outcomes and impacts. Our evaluation matrix set out a wide range of criteria, not all of which apply in the FLAIR context. To answer the EQ for FLAIR, we focused on the following criteria:

- Outputs of FLAIR awards.
- Outcomes of FLAIR awards.
- Impact of Covid-19 on outputs and outcomes.
- Impact of funding cuts on outputs and outcomes.

3.4.1. Outputs of FLAIR awards

In the relatively short time since the establishment of the FLAIR programme, FLAIR award holders have delivered a wide range of outputs. These have included publications,¹⁷⁸ innovations,¹⁷⁹ presentations and engagements,¹⁸⁰ prizes¹⁸¹ and wider outputs, including contributions to the establishment of new scientific bodies¹⁸² and participation in scientific research to support the Covid-19 response.¹⁸³ A survey of FLAIR awards found that 92.8% of fellows and 100% of collaboration grant holders either agreed or strongly agreed that their award had resulted in improvements in management practice, knowledge, research findings,

¹⁷⁶ P8 interview.

¹⁷⁷ A Panel Minutes FLAIR 2021.

¹⁷⁸ See for example: A12 Award analysis table; A20 Award analysis table.

¹⁷⁹ See for example: A20 Award analysis table.

¹⁸⁰ See for example: A19 Award analysis table; A18 Award analysis table.

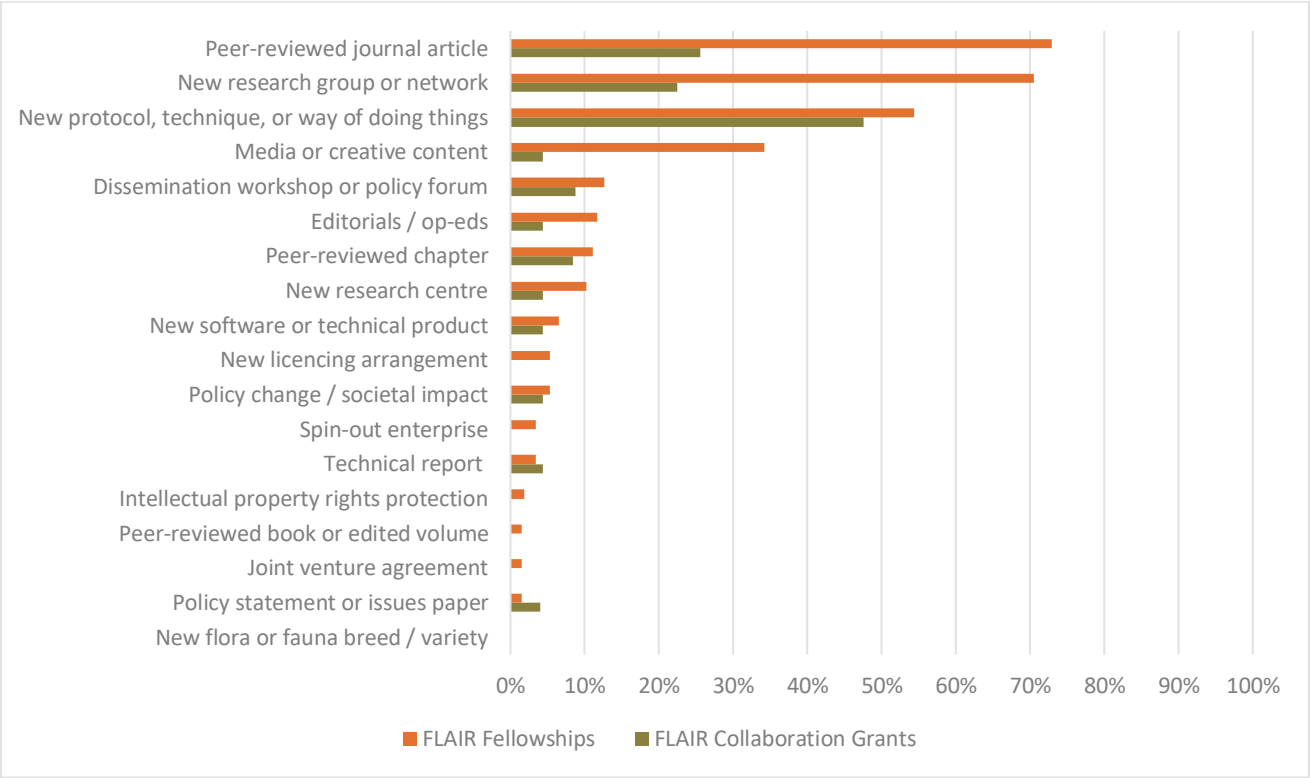
¹⁸¹ See for example: A20 Award analysis table; A15 Award analysis table; A3 Award analysis table.

¹⁸² A11 Award analysis table.

¹⁸³ A20 Award analysis table.

technology, methods or tools.¹⁸⁴ Figure 12 presents survey data on the types of outputs of FLAIR awards. The outputs most commonly reported by award holders were publication of a peer-reviewed journal article (73% of fellows and 26% of collaboration grant holders), development of a new protocol, technique or way of doing things (54% of fellow and 48% of collaboration grant holders) and establishment of a new research group or network (71% of fellows and 23% of collaboration grant holders).

Figure 12 Outputs of FLAIR awards



Source: GCRF fund-wide survey 2022

There have also been examples of FLAIR award holders engaging stakeholders and end users to promote understanding of research outputs and to improve opportunities for uptake. One FLAIR fellow is working with ministerial departments to develop modelling tools to support monitoring and conservation in marine protected areas.¹⁸⁵ To increase awareness of their research findings on the development of insecticide resistance in mosquitos, another fellow has conducted meetings with the director of their country’s national malaria control programme as well as engaging with local farmer groups.¹⁸⁶ Through engagement with wider stakeholders within their university, one fellow translated their research on the development of fertiliser-producing urinals into the first installation of a urine collection system in a commercial building in South Africa.¹⁸⁷

In some cases, FLAIR award holders have made efforts to engage with relevant stakeholders at an early stage of the research and prior to the delivery of research outputs, with a view to supporting future research uptake. One FLAIR fellow, whose research focuses on the use of digital soil information to support agricultural management, has established both ‘top-down’

¹⁸⁴ Survey data.

¹⁸⁵ A15 Award analysis table.

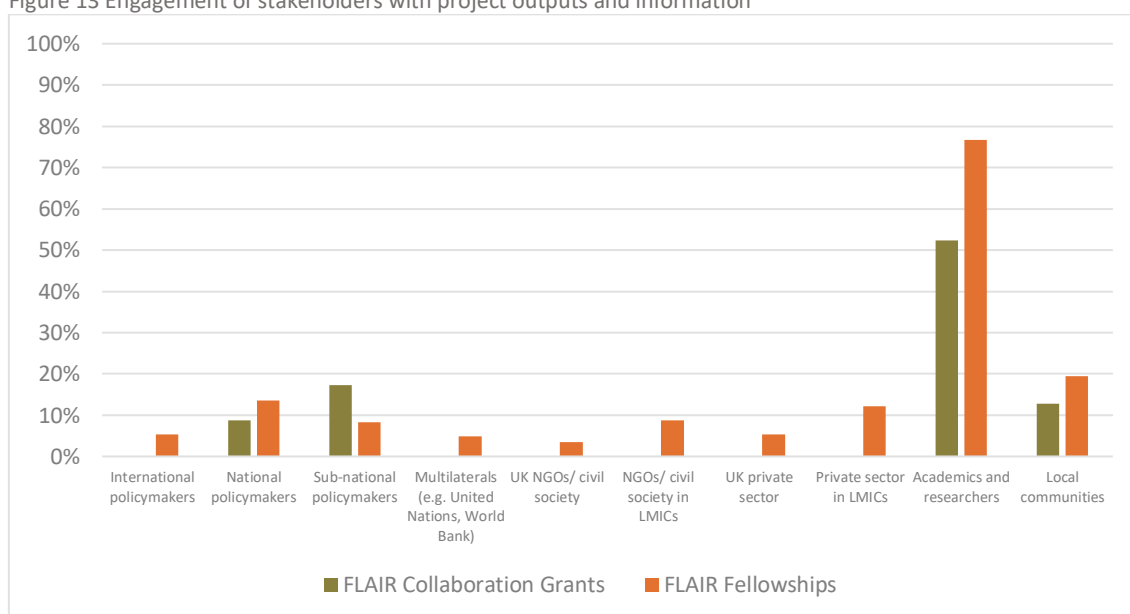
¹⁸⁶ A6 Award analysis table.

¹⁸⁷ A16 Award analysis table.

and ‘bottom-up’ relationships to create ‘routes’ for future research impact. These include relationships with policymakers at relevant government ministries, irrigation scheme officials and farmer communities and organisations involved in irrigation schemes.¹⁸⁸ Another fellow has established a partnership with their national Ministry of Health to support future engagement in their research on pre-eclampsia risk factors.¹⁸⁹

Notwithstanding examples of wider stakeholder and end user engagement, overall most stakeholder engagement activity of FLAIR award holders has focused on academic and research audiences. This is illustrated by Figure 13, which presents survey data on engagement of stakeholders with project outputs and information. According to this data, 77% of fellows and 52% of collaboration grant holders have engaged academic stakeholders in research outputs and information, the next most common stakeholder types engaged by fellows being local communities (19.4%) and national policymakers (13.6%).

Figure 13 Engagement of stakeholders with project outputs and information



Source: GCRF fund-wide survey 2022

3.4.2. Outcomes of FLAIR awards

While there have been some early examples of FLAIR award holders engaging relevant stakeholders in research outputs, including engagement of non-academic audiences, on the whole, evidence of wider outcomes and impacts has been limited. According to one interviewee, while research outputs achieved to date have laid the foundations for future outcomes, and in some cases are already being implemented in ways that will contribute to development impact, in most cases it is too early to talk about the wider outcomes of FLAIR awards.¹⁹⁰ Given FLAIR’s focus on ECRs and the relatively short lifespan of FLAIR awards, this is not necessarily surprising. Indeed, in interviews, programme and award-level stakeholders consistently emphasised the long-term process of supporting ECRs to deliver high-quality, high-impact research.¹⁹¹ Moreover, progress towards longer-term outcomes has been

¹⁸⁸ A19 Award analysis table.

¹⁸⁹ A13 Award analysis table.

¹⁹⁰ P21 interview.

¹⁹¹ P2 interview; P21 interview; P22 interview; P20; A6 Award analysis table.

disrupted by the Covid-19 pandemic and the impact of cuts to FLAIR funding. These impacts are explored in more detail in the sections below.

3.4.3. Impact of Covid-19 on outputs and outcomes

The Covid-19 pandemic has had a significant impact on the ability of FLAIR fellowships to make progress in line with planned objectives. The impacts of the pandemic on awards have been diverse, including institution and lab closures,¹⁹² delays to the shipment of equipment, materials and samples,¹⁹³ restrictions on award holders' ability to conduct fieldwork¹⁹⁴ and training,¹⁹⁵ and the personal impacts on grant holders, their research teams and their families.¹⁹⁶ The impact of Covid-19 has been particularly significant for FCGs, with most of these grants being focused on travel and in-person knowledge exchange between FLAIR fellows and UK counterparts.¹⁹⁷ In the vast majority of cases, these exchanges have not been able to take place.

Faced with these disruptions, many FLAIR award holders have adapted their approach to ensure continued research progress. Forms of adaptation include shifting to non-laboratory-based work during times of lab closure – for example computational analysis,¹⁹⁸ literature reviews¹⁹⁹ or training courses²⁰⁰ – as well as the use of virtual communication tools in place of physical meetings. Notwithstanding these adaptations, however, in most cases the disruptions caused by Covid-19 have resulted in delays to research progress, leading many FLAIR awards to require no-cost extensions in order to complete their planned work.

3.4.4. Impact of funding cuts on outputs and outcomes

The cuts to funding of FLAIR award renewals pose a threat to the translation of research outputs into longer-term outcomes and impacts. The various outputs achieved to date provide an indication of the potential longer-term outcomes and impacts of FLAIR awards. Through continued scientific progress combined with engagement and outreach, programme stakeholders expect FLAIR awards to contribute to a range of longer-term outcomes in areas such as policy change, innovation and enterprise and the development of Africa's scientific landscape.²⁰¹ However, interviews with award holders highlighted widespread concern over cuts to the funding for the renewal of FLAIR awards, thereby reducing the length of FLAIR fellowships to two years rather than five, and over the complete cut to the funding of third cohort after fellows has been selected. They felt this would, in the absence of alternative sources of funding, severely damage the likelihood of these longer-term outputs being achieved.²⁰²

¹⁹² See for example: A18 Award analysis table; A10 Award analysis table; A3 Award analysis table; A20 Award analysis table.

¹⁹³ See for example: A11 Award analysis table; A19 Award analysis table; A10 Award analysis table; A14 Award analysis table.

¹⁹⁴ See for example: A13 Award analysis table; A13 Award analysis table; A1 Award analysis table; A5 Award analysis table.

¹⁹⁵ See for example: A11 Award analysis table.

¹⁹⁶ See for example: A12 Award analysis table; A17 Award analysis table.

¹⁹⁷ See for example: A18 Award analysis table; A11 Award analysis table; A16 Award analysis table.

¹⁹⁸ A20 Award analysis table.

¹⁹⁹ A14 Award analysis table.

²⁰⁰ A18 Award analysis table.

²⁰¹ P21 Interview; RF Programme Impact Report - Executive Summary.

²⁰² See for example: A18 Award analysis table; A11 Award analysis table; A12 Award analysis table; A6 Award analysis table.

3.5. EQ 5: 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? (Context, causal factors)

Box 7. Barriers and enablers to success

Constrained institutional capacity, particularly with regard to due diligence, has in some cases acted as a barrier to the research and created delays. Relatedly, a lack of institutional postdoctorate culture, along with broader political and environmental challenges, has hindered some fellows' development. **However, a range of enabling factors is present to help compensate this, the programme's flexibility being particularly important.**

Our approach to answering the EQ

EQ 5 focuses on the research and non-research barriers that FLAIR fellows have faced and how they have impacted on progress. To answer the EQ for FLAIR, we looked at the following selection criteria:

- Risks in the research environment.
- Risks in the political environment.
- Examples of success factors.

3.5.1. Risks in the research environment

Although FLAIR's direct granting to Southern researchers was a strength of the programme, many of the fellows funded by FLAIR were based at less developed African institutions with minimal prior experience of receiving grants of this type, resulting in delays. Issues were mostly found in the least developed universities, but issues around receiving funds also applied to South African organisations. In some cases, institutions did not comply with RS' due diligence processes, leading to delays and disruptions which had a 'significant impact' on some fellows' research, as some fellows reported struggling to keep up to date with project timelines as a result of due diligence-related delays in the delivery of funding.^{203, 204} In one case, an interviewee's funding was put on hold for two months because their university had not provided certain elements of information to RS as part of the due diligence process.²⁰⁵ One fellow remarked that African institutions were 'woefully unprepared to accept foreign funds' and that they needed a great deal more 'priming and preparation' to accept and deliver the award.²⁰⁶ Broader institutional procurement policies have resulted in difficulties for other fellows, who reported significant delays – that could be measured in months – in their acquisition of laboratory instruments.²⁰⁷

Relatedly, a lack of institutional postdoctorate culture has hindered some fellows' development. These risks persisted despite the programme's anticipation of this postdoc challenge, well-understood by AAR, and efforts to mitigate it through funding for equipment

²⁰³ A19 interview.

²⁰⁴ A11 interview.

²⁰⁵ A13 interview.

²⁰⁶ A3 interview.

²⁰⁷ A7 interview.

and institutional support. Prior to FLAIR, some institutions had never participated in a fellowship of this type, or even hosted postdoctoral students, leading to reduced institutional support.²⁰⁸ One fellow remarked that they ‘must have been the first funded fellow [the institution] had’ and as a result felt ‘held back’ working within this institution. Another interviewee familiar with the science landscape in sub-Saharan Africa remarked that ‘postdoc culture doesn’t exist in a lot of SSA’.²⁰⁹ This meant that some fellows felt isolated and lacked an environment conducive to good research.

3.5.2. Risks in political environment

Broader political and environmental events have also disrupted fellows’ research.

Various events outside the direct control of the programme have interrupted the research of FLAIR fellows across the continent, but particularly those in South Africa – for example:

- Fires, for example in the Table Mountains, damaged parts of the UCT campus, meaning that at least one fellow had to temporarily relocate and complete work at another institution.
- Riots and uprisings related to the imprisonment of former president Jacob Zuma have also caused some disruption to FLAIR fellows’ research.
- The 2021 taxi conflict in Cape Town also caused some delays for fellows at UCT as traffic was cut off.
- Finally, interruptions to Internet access have been an issue for several fellows, making online collaborations more challenging in particular. Some fellows have also endured countrywide internet shutdowns.

3.5.3. Enabling factors

A range of enabling factors has facilitated research and research processes, but the programme’s adaptability has been especially key. The barriers discussed have caused delays and interruptions but have not impeded the delivery of the programme, as FLAIR has permitted extensions and proposed solutions to manage disruptions. Liberally permitting no-cost extensions, for example, has been key in cases where funding was delivered late. Similarly, being flexible around changes in approach necessitated by Covid-19 disruptions and restrictions has allowed research to continue. Analysis of FLAIR awards highlighted several other factors that have contributed to the successful progress of research. These include the following:

- Hands-on programme support provided by RS/AAS. As highlighted in EQ 1, FLAIR has actively supported fellows and helped them to navigate challenges in the research process.
- Institutional facilities and expertise. In many cases, the support of non-research in tasks such as risk analysis and flexibility in programme administration has meant that researchers can concentrate on their research. Relatedly, non-researchers at African institutions have offered support in publicising research outputs and, in some cases, helping to commercialise them too.

²⁰⁸ A7 interview.

²⁰⁹ A17 interview.

- Wider networks. Fellows have been able to leverage connections established via mentors and FCG collaborators; as one example of this, one fellow had joined an international research group based in the UK through their collaborator, creating further research opportunities.
- Virtual tools. The use of virtual tools has been key for FLAIR fellows adapting to the Covid-19 situation, as detailed previously.

3.6. 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?

Box 8. Additionality of GCRF funding

The FLAIR programme is unique in the scale and nature of funding offered to sub-Saharan African postdoctoral researchers. It was also a unique opportunity for African postdoctoral researchers to be directly funded to work in Africa instead of migrating to institutions in the global north to work as part of someone else's research team. Unfortunately, the additionality of the programme has already been demonstrated by the funding cuts, as some fellows have emigrated out of the continent. Beyond harming individual fellows' prospects, the funding cut has also caused significant reputational damage to the UK.

Our approach to answering the EQ

EQ 6 focuses on the additionality of FLAIR and what the unique aspects, if any, of the fund were. We have used the funding cut situation to provide some understanding of the counterfactual, asking what fellows are doing in the absence of the fellowship. To answer the EQ for FLAIR, we looked at the selected criteria:

- Additionality of knowledge funded by GCRF and whether the equivalent could be secured through other sources in the same time frame/quality, etc.
- Reputational damage to the UK of the funding cut.

3.6.1. Additionality of knowledge funded by GCRF and whether the equivalent could be secured through other sources in the same time frame/quality, etc.

FLAIR was a unique funding programme, offering sub-Saharan African postdoctoral researchers the opportunity to lead a research group, engage in training, manage their own grants, and become independent researchers. In many cases, no alternative funding sources exist meaning that, post-funding cut, fellows have now terminated or significantly scaled back their FLAIR research to focus instead on teaching responsibilities.²¹⁰ Where other funding opportunities do exist, they are generally of smaller scale, involve less responsibility and lack a mentorship component. Some interviewees mentioned the United States (US) National

²¹⁰ A38 interview, A18 interview, A16 interview, A3 interview.

Institute of Health (NIH) programmes as one alternative, but noted that this is much more competitive, that generally the pool is global, and that such applications require institutional approval as well.²¹¹

In some cases, the funding cut has resulted in dismissal from their institutions, as their position was entirely grant-funded. In short, there are no direct like for like replacements for FLAIR.²¹²

Crucially, FLAIR allowed fellows to focus their efforts on sustainable development research *within* Africa, often for the first time.²¹³ The uniqueness of this funding, awarded directly to African fellows for projects to be directed by them, must be underlined. Interviewees reported that the funding landscape is relatively barren across sub-Saharan African countries, with few opportunities that tend to be highly competitive with only small chances of success, and researchers often leave to pursue opportunities abroad. Indeed, interviewees have said that most postdoctorate programmes invite researchers to go abroad, and viewed FLAIR as an unusual, and exciting, exception to this model.²¹⁴ Some saw FLAIR as acting to ‘solve the brain drain’ of talented postgraduates by employing ‘Africans with PhDs in Africa’ and developing the local research environment.²¹⁵ This validity of the analysis has been borne out by the funding cuts: some fellows have now relocated from African to institutions in the global North to kick-start their research careers.²¹⁶

3.6.2. Reputational damage

Many interviewees spoke in no uncertain terms about the impact of the funding cuts to the UK’s reputation as a reliable partner engaged in sustainable development.²¹⁷ One said the cut was a ‘disgrace and a disaster’ in this respect.²¹⁸ Another said the cuts have a ‘negative impact on a generation of African scientists’ whose time and energies have been wasted applying to a programme that never came to fruition. This was particularly the case in the third cohort, who were told they had been awarded fellowships which were then removed.²¹⁹ The latter expanded on this to say that the funding cuts created an opportunity for other countries, for example Russia or China, to move into these spaces, fund programmes and develop relations that the UK has damaged.²²⁰ Relatedly, the funding cut has also strained relationships between RS and AAS, as their collaboration came to an end.²²¹

²¹¹ A3 interview.

²¹² P10 interview, P11 interview, A31 interview, AX interview.

²¹³ P10 interview.

²¹⁴ A17 interview.

²¹⁵ A31 interview.

²¹⁶ A17 interview, P11 interview, A18 interview.

²¹⁷ P18/19 interview.

²¹⁸ P5 interview.

²¹⁹ P20 interview.

²²⁰ P20 interview.

²²¹ P21 interview.

4. Conclusions

This section draws out the main conclusions from the process evaluation of FLAIR and considers potential lessons that can be learned for future programmes. Key lessons and recommendations are expanded on in Section 4.1.

In FLAIR, RS and AAS have established a programme well aligned to GCRF's strategic goals. In line with GCRF, FLAIR has articulated clear objectives of supporting challenge-led research and scientific capacity building while also fostering international collaboration and partnerships. The programme has been well set up to deliver on these objectives. Commissioning processes have placed a clear emphasis on identifying projects that will address local development challenges and contribute to the development of capacities. Notably, FLAIR was distinct from other GCRF programmes in awarding funding directly to African fellows and their host institutions, and so were among a very few GCRF investments that were Southern-led. M&E processes, meanwhile, have sought to collect data to monitor the extent to which commissioned awards are delivering in these areas. While broadly set up to deliver on objectives, the extent to which FLAIR structures and processes meet specific ODA R&I excellence varies. The need for research to be relevant to local needs has been very effectively embedded into the programme. Similarly, considerations of the gender equity of award holders have also been strongly emphasised. By comparison, social inclusion has been given less consideration, while poverty has remained poorly defined.

In several respects, the management of FLAIR programme provides a strong example for other programmes. FLAIR has been established through a highly effective partnership between RS and AAS, with a strong sense of equity and co-ownership between the partners. The fellowship awards were Southern-led, providing a strong alignment to local development needs and pathways to impact. FLAIR has also proved exemplary in its efforts to create opportunities for collaboration and cohort building between award holders, notwithstanding disruptions caused by Covid-19. FLAIR has been flexible in this respect and across the delivery of the programme more broadly; they have readily allowed, and sometimes encouraged, fellows to take leave and no-cost extensions, and to make adaptations to their research plan when required. Related to this, FLAIR has actively supported fellows in their day-to-day research, regularly checking in with them and being on hand to deal with any concerns and requests. Such steps may seem trivial, but they have contributed to the almost unanimously positive opinion that fellows have of the programme. FLAIR has also demonstrated strengths in its ability to combine formal M&E mechanisms with informal channels for learning and adaptation. It has established both rigorous formal reporting requirements, via financial reports and Flexigrant submissions, and opportunities for fellows to discuss strengths and weaknesses of the programme, with scope to make changes.

FLAIR has enabled researchers in African institutions to focus on completing their own research, in many cases for the first time. While FLAIR has supported a wide variety of activities – creating opportunities for award holders to build new networks within and outside Africa, enabling master's and postdoctorate students to complete research and developing the capabilities of African institutions – interviewees consistently identified research freedom as the single most important aspect of the programme. Normally, postdoctorates are overwhelmed with teaching requirements and have limited dedicated research time. FLAIR

changed that and freed up significant independent research time for them. This has been a central aim of FLAIR, and future programmes seeking to fund ECRs in sub-Saharan Africa should be cognisant of this need and ensure that empowering African researchers to lead research through direct granting and enabling time for research is a central focus.

In pursuing the twin objectives of supporting challenge-led research and building capacity, the FLAIR programme has faced a fundamental tension. To achieve the former, FLAIR has naturally been drawn to support well-established researchers in strong institutions, as such researchers are typically best-placed to undertake cutting-edge research. In supporting such researchers, however, FLAIR has inevitably channelled its resources and support away from those researchers and institutions who potentially stand to gain the most from its capacity building support. While there have been wide-ranging opportunities to support capacity building with the institutions supported by FLAIR – indeed, this evaluation has a number of very strong examples of individual capacity development – the programme’s leaning towards scientific excellence has also served to constrain the kinds of capacity building that could otherwise have been achieved. This is an almost inevitable consequence of FLAIR’s focus, identified above, on liberating *individual* researcher time and ensuring that individuals are supported to complete their own research. While this tension has been recognised from the outset, and the programme has considered numerous potential responses, it is ultimately a tension that the programme has failed to resolve within the truncated timeframe that FLAIR ran for.

In its relatively short lifespan, and despite the disruptions caused by the Covid-19 pandemic, FLAIR has already begun to deliver a wide range of outputs. While this has mostly included traditional academic outputs, in some cases award holders have also engaged in wider activities, including establishing new scientific organisations, contributing to Covid-19 response, and successfully engaging stakeholders and end users in their research. Such outputs have provided an indication of the potential longer-term outcomes and impacts of FLAIR awards. The cuts to FLAIR funding have posed a real threat to the translation of outputs into longer-term outcomes and impacts, placing many research projects in a position of uncertainty, with no guarantees that replacement funding will be found.

4.1. Lessons and recommendations

EQ 7: What lessons can inform improvements in the future delivery of the signature investments & promote learning across GCRF?

Box 9. Lessons to inform improvements in future delivery

- Address questions of fairness and equity at all levels of programme delivery.
- Provide opportunities for award holders to build networks and collaborations.
- Ensure flexibility and adaptability in programme delivery.
- Integrate key fund objectives into programme commissioning and monitoring.
- Define capacity building clearly, and have clear goals regarding intended capacity building impacts.
- Recognise that ECRs need long-term support to achieve meaningful outcomes and impacts.

The conclusions drawn from this process evaluation of the FLAIR programme point to a number of lessons and recommendations for future funding programmes. These recommendations draw on areas in which the FLAIR programme has performed strongly, thereby providing an example for future programmes, and also on FLAIR's weaknesses and areas for development as highlighted by the evaluation, from which other programmes may also learn.

4.1.1. Address questions of fairness and equity at all levels of programme delivery

The FLAIR programme underscores the need for considerations of fairness and equity between UK and developing country partners to be addressed at all levels of programme delivery. In some ways FLAIR provides a strong example of how this can be done. At the level of programme management, FLAIR has demonstrated the potential for a strong and equitable partnership between a UK and an African organisation to co-develop and co-implement a programme, with shared responsibilities across parties. At award level, FLAIR fellowships were Southern-led and allowed African researchers to direct their own research and make important contributions to issues affecting their countries. FCGs have also helped to foster a number of effective and equitable partnerships between UK and African researchers. At the same time, FLAIR also provides lessons regarding the need for open discussion and agreement regarding the long-term plans for programmes developed in partnership, including the need for questions regarding the full transfer of ownership to developing country partners to be addressed. In the context of awards, a key challenge has been the high proportion of successful applicants from a relatively small number of well-established South African universities. In addition, FLAIR also highlights the need for full consideration of the fairness of arrangements surrounding the administration and geographical distribution of awards, as well as the need for consideration for the fairness of capacity building benefits.

4.1.2. Provide opportunities for award holders to build networks and collaborations

In its efforts to create opportunities for cohort building and collaboration between award holders, FLAIR provides a lesson for other programmes. While the ultimate impact of these

efforts has been weakened by the disruption of the Covid-19 pandemic and the funding cuts, there are clear indications not just that these cohort building activities were highly valued by award holders but also that they have helped to foster new collaborations and partnerships that may not otherwise have been established. FLAIR has also demonstrated the potential for funders to create wider networking opportunities for researchers, linking award holders under one portfolio to like-minded researchers funded through other programmes and schemes.

4.1.3. Ensure flexibility and adaptability in programme delivery

Management of the FLAIR programme has been flexible and adaptable, both in terms of day-to-day management and in terms of approaches to longer-term programme delivery, the latter supported by informal mechanisms for learning and adaptation. Here again, FLAIR provides lessons from which other programmes might draw. While this flexibility and adaptability has been positively received by award holders, it has also improved the programme's ability to cope with the disruptions caused by unforeseen circumstances, most notably Covid-19.

4.1.4. More explicitly integrate key fund objectives including ODA R&I excellence into programme commissioning and monitoring

While FLAIR is well aligned to GCRF's strategic goals, this evaluation has also found that the tailoring of commissioning and monitoring processes to address more specific GCRF development considerations, i.e. ODA R&I excellence, is more mixed, with strengths in some areas and less developed approaches in others. There are potential lessons here in terms of the alignment between overarching fund strategies and the processes of specific programmes and investments within those funds. At the same time, efforts to ensure alignment must also be balanced against the need for individual programmes to adopt approaches most suited to their specific goals, objectives and local contexts.

4.1.5. Define capacity building clearly, and have clear goals regarding intended capacity building impacts

FLAIR has contributed to capacity development at various levels. However, the programme has also highlighted a number of important considerations for future programmes – most importantly the need for clear definition of the type of 'capacity building' that a programme is trying to achieve. In the case of FLAIR, the lack of a clear definition has contributed to a tension whereby the capacity development of individuals within well-established institutions has taken precedence over the capacity development of less well-established institutions, where support is arguably more needed. By being clear about the specific goals of capacity building, future programmes can ensure that resources and activities are fully targeted towards those ends.

4.1.6. Future programmes and funding allocations need to recognise the longer term funding commitment required to support ECRs in order to achieve meaningful outcomes and impacts

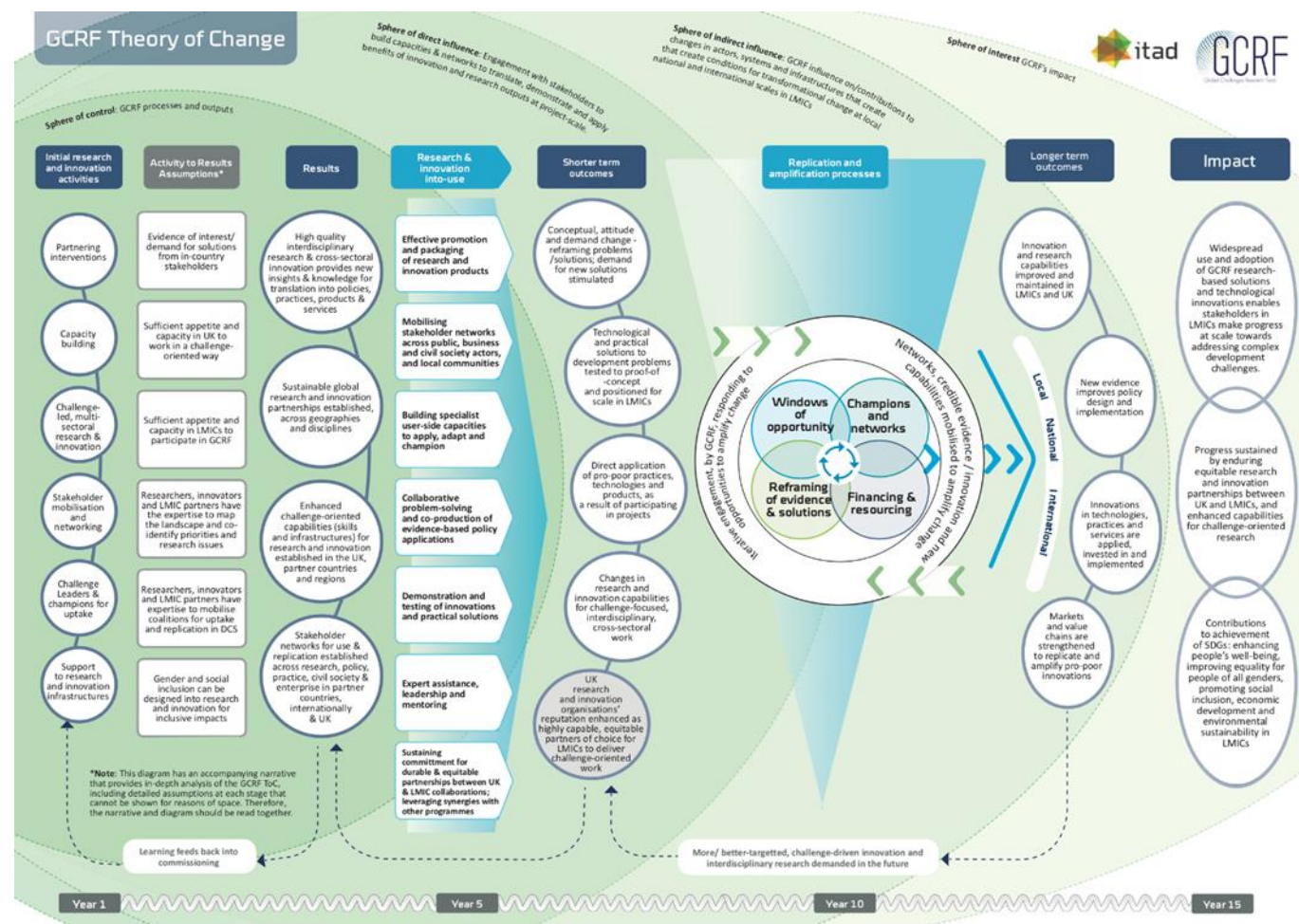
While FLAIR fellowships were designed as five-year awards – comprised of an initial two years followed by a three-year renewal – the cuts to FLAIR funding have meant that, in practice, most FLAIR fellowships have been only two-year awards. In underscoring the inherent difficulty of achieving meaningful outcomes within such short time frames, FLAIR has highlighted the need for longer-term support, particularly for early career fellows. Future programmes should recognise the long-term commitment required to support ECRs to undertake high-quality impact-oriented research, and build this into their funding strategies.

References

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Annexes

Annex 1: GCRF Theory of Change



Annex 2: Research tools

Annex 2a: KII topic guide

Instructions

Topic guides will need to be contextualised for individual stakeholders.

- **Build your own topic guide:** You should select questions from here and contextualise them to the Process Evaluation specific area.
- **This template should also be used as the KII Write-Up Template** – save a copy of each template with the name of the KI, and save in your folders.
- **Consent:** Please give respondents the introduction and ensure that you have gained explicit consent.

Topic guide

Programme/Award	
Interviewee name	
Position and organisation	
Interviewer name	
Date of interview	

Introduction

Background:

- We are evaluators from Itad, RAND Europe and NIRAS-LTS – a UK-based consortium of research organisations with specialisms in evaluation.
- We have been commissioned by BEIS to carry out an evaluation of GCRF.
- The purpose of this interview is to understand [adapt as relevant].
- The interview will last around 45–60 minutes.

Consent

- As this is an independent evaluation, all interviews are confidential, anonymised and non-attributable. Everything you tell us will be confidential, and your name will not be used in any of our reports. We may use quotes from the interview in our reporting, but all quotes will be non-attributable.
- Do you have any questions about the research, or concerns you would like to raise before we start?
- Do you consent to be interviewed on this basis? [Y/N]

Recording consent [only if you choose to record]:

- We would also like to record the interview to facilitate note-taking and later analysis. The recording would not be accessed by anyone beyond our team and would be deleted following analysis.
- Do you consent to being recorded on this basis? [Y/N]

2	Design and Implementation processes (ODA research excellence)	<p>1. How are specific development considerations built into the process of call development and proposal evaluation? For example:</p> <ol style="list-style-type: none"> Gender responsiveness Poverty and social inclusion Equitable partnerships and wider fairness Relevance to local needs Coherence with the wider portfolio (in the programme, in GCRF, elsewhere) 	<ul style="list-style-type: none"> • Relevance + coherence in design and delivery • Strategic/holistic/system lens, including interdisciplinarity • Gender responsiveness and poverty addressed in design and processes, e.g. gender in context analysis • Gender balance/composition of the evaluation team • Inclusion of 'gender experts' as part of the evaluation team and in the design of the calls for proposal? • Target for women applicants? • Evaluation criteria – gender equality scoring • Gender balance in the research team? • Gender expertise in the team? • Inclusiveness (SEDI) addressed within design and research processes • Capacity needs identified and assessed • GESI considered in stakeholder engagement and dissemination design
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RESPONSES HERE:

3	Management of the programme and awards	<ol style="list-style-type: none"> 1. How do you manage your portfolio to ensure it is coherent and take advantage of synergies where they exist? <ol style="list-style-type: none"> a. How do you coordinate and interact with other parts of GCRF? b. How do you make your portfolio work together, both within the programme itself and within GCRF? c. What opportunities are there for networking between award holders? d. How do you support interdisciplinary research? 2. How do you manage the award/programme to ensure that development considerations are integrated into delivery in an ongoing way? <ol style="list-style-type: none"> a. Gender responsiveness b. Poverty and social inclusion c. Equitable partnerships and wider fairness d. Relevance to local needs 3. How do you manage and adapt to changing circumstances? <ol style="list-style-type: none"> a. What did you do to manage COVID-19? b. What did you do to manage the funding cuts? c. Are there any other circumstances in which you have had to be agile? Do awards have flexibility to change in response to circumstances once they have started? 4. How, if at all, do you consider the potential negative consequences of the award/programme? <ol style="list-style-type: none"> a. What are the potential risks and how do you mitigate them? 	<ul style="list-style-type: none"> ▪ Hands-on programme management (e.g. cohort-building, aggregate-level R&I into use) ▪ Flexibility to respond to events and emergencies, e.g. Covid-19 ▪ Addressing barriers to interdisciplinary working ▪ Promoting coherence between awards ▪ Negative consequences mitigated and a 'do no harm' approach ▪ Facilitating learning for adaptation and legacy ▪ Guidelines/capacity building on the integration of gender analysis into research/innovation cycle ▪ Engagement with gender experts ▪ M&E and regular reporting ▪ Programme level - how are they monitoring gender, e.g. track applicants, track minorities and how much grant was sought, how much grant was awarded, female researchers tend to ask for less funding and get less
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		<p>b. How do you ensure you do no harm?</p> <p>5. What are your monitoring and evaluation processes?</p> <p>a. How do you ensure the information helps inform learning and improvement, within awards, within the programme, across GCRF?</p>	<p>▪ Do they have a gender equality strategy, how are they tracking that, systems and monitoring across awards?</p>
<p>RESPONSES HERE:</p>			

4	Capacity development	<p>1. How is capacity strengthening delivered in the programme?</p> <ul style="list-style-type: none"> ○ How do you assess capacity needs? For LMIC partners and for UK partners. ○ How do you ensure capacity strengthening is supported? ○ How do you assess it? ○ At which levels does capacity strengthening occur (in both directions)? ○ How are fairness considerations included in your capacity strengthening? 	<ul style="list-style-type: none"> • Clear Theory of Change for how capacity development contributes to the desired programme outcomes • Including capacity development for UK partners as well as LMIC partners • Analysis/understanding of local R&I ecosystems and capacity needs • Gender and inclusion analysis of capacity needs, both LMIC and UK • Capacity support that aligns with good practice provided to individuals, organisations and/or R&I infrastructure • Fairness considerations integrated • Tracking of GESIP and Fairness aspects
RESPONSES HERE:			

5	Engagement	<p>How do you ensure the work you support is well positioned for use?</p> <ol style="list-style-type: none"> What are your engagement and dissemination strategies? How do you build and maintain relationships with potential users of research? How much happens at the programme level and how much is left to award holders? Is Gender and inclusion factored into the development of engagement strategies? 	<ol style="list-style-type: none"> Fairness in engagement with local research ecosystems/stakeholder engagement 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)
RESPONSES HERE:			

TOPIC: 2. Efficiency, proportionality and VFM of processes to support challenge-led research			
	SUB-TOPIC	QUESTIONS	PROMPTS
1	<p>Efficiency, proportionality of processes</p> <p>Fairness for partners</p>	<ol style="list-style-type: none"> To what extent are processes efficient and proportionate? Why/why not? To what extent do processes promote Vfm and cost-effectiveness? How/how not? To what extent are processes fair for LMIC partners? Why/why not? 	<p>Efficiency and timeliness of processes</p> <p>Fairness for partners</p> <p>Processes promote a focus on GESIP</p>

RESPONSES HERE:

TOPIC:			
3. Early progress towards desired outcomes/impacts			
	SUB-TOPIC	QUESTIONS	PROMPTS
1	Key outcomes and achievements	<p>What have been the key achievements and outcomes of the programme?</p> <ol style="list-style-type: none"> How well do these align with your ToC and vision for the programme? Have there been any unintended or unexpected outcomes (positive or negative)? <p>2. What impact has Covid-19 and the funding cuts had on your ability to achieve these outcomes?</p> <p>3. Beyond Covid-19 and the funding cuts, what have been the barriers to delivering on your intended outcomes? For example:</p> <ol style="list-style-type: none"> Risks in the research environment (organisation, support for research) Risks in the political environment (underdeveloped policy environment, unstable political context, local recognition of issues) Risks in the data environment (data availability and agreements) <p>4. What factors have helped overcome barriers and achieve the intended outcomes? For example:</p>	<p>Results and outcomes from programme ToCs</p> <p>Impact of and adaptation to Covid-19 on progress</p> <p>Unintended outcomes (positive and negative)</p> <p>GESIP-related outcomes</p> <p>Contextual factors shaping the interventions and outcomes:</p> <ul style="list-style-type: none"> • Maturity of the field • Research capacity strengthening • Risk in the research environment (i.e. organisational contexts' support for research) • Risks in political environment (i.e. underdeveloped policy environment, unstable political context, local recognition of the issues and LMIC communities themselves) • Risks in data environment (i.e. data availability and agreement on measures)

		i. Organisational capacity (support from IPP, own institution) ii. Wider networks	Other features and factors, e.g. a focus on GESIP, scoping demand, flexibility in the budgeting model Enablers or challenges in applying GESIP guidance to your innovation or research?
RESPONSES:			

TOPIC:			
4. Significance and uniqueness of GCRF funding			
	Sub-topic	QUESTIONS	PROMPTS
1		Given the Covid-19 impacts AND funding cuts, to what extent do you think GCRF funding can be substituted? 1. What alternative sources of funding exist for this award/programme? 2. What aspects/interventions within the award/programme relied on GCRF funding? Are there alternatives? 3. What are the next steps for the award/programme, e.g. will you be pursuing a new funding strategy?	<ul style="list-style-type: none"> • Extent to which GCRF funding can be substituted • Additionality of knowledge funded by GCRF and whether the equivalent could be secured through other sources in same time frame/quality etc (in VfM rubric) • Interventions within awards and programmes that rely on GCRF funding/response to Covid-19

RESPONSES HERE:

Topic

5. Lessons to inform improvements in the future delivery of the signature investments & promote learning across GCRF

	SUB-TOPIC	QUESTIONS	PROMPTS
1	Lessons for award holders Lessons for funders	1. What have been the key lessons learned for you as award holder/programme manager? 2. What improvements could future ODA project/programmes make?	

RESPONSES HERE:

Annex 2b: Common codebook – Stage 1b

*Note: VfM-specific data needs are mapped in blue against this framework to show where these fit, but also to flag a request for looking at **resource allocation to southern partners and rationale for this** [sub-code 2.2: 'fairness to partners'].

PARENT CODE	SUB-CODE	DEFINITION/DESCRIPTION
1. Structures and processes in place to support challenge-led research with development impact, within signature investment awards and programmes	1.1 Selection and set-up processes	Presence of and description of the ToC/vision for the programme; information on how the call was defined and who was involved, and on how projects were selected and the review process (and who was part of that)
	1.2 Design and Implementation processes (ODA research excellence)	The ways in which, and the extent to which, development considerations are built into calls and proposals (gender responsiveness, poverty, social inclusion, equitable partnerships; relevance and local needs) (VfM: allocation of resources to LMIC partners)
	1.3 Management of the programme and awards	Any synergies or approaches to identifying synergies across the programme, or GCRF portfolio (coherence); management processes to ensure that development needs are met, reviewed and integrated (gender responsiveness, poverty, social inclusion, equitable partnerships; relevance and local needs); approach and flexibility of management processes in changing circumstances or with changing research/stakeholder priorities; any considerations of negative impacts of the research/process; monitoring and evaluation processes
	1.4 Capacity development	Approach to capacity strengthening – understanding capacity strengthening needs (and for who), and the extent to which, and how, capacity is being considered or approached; and what

		considerations are driving capacity strengthening (needs of LMIC/UK researchers)
	1.5 Engagement for delivering research	Approach to engagement with local researchers or other projects/programmes operating in the context, and with non-research stakeholders (coherence)
	1.6 Engagement with users	Any engagement with intended users of the research; stakeholder identification; targeting to user needs; dissemination strategies (for uptake)
2. Efficiency, proportionality and VfM of processes to support challenge-led research	2.1 Efficiency, proportionality of processes	Whether processes are efficient and whether they are (dis)proportionate to the scale/scope of funding or ambitions. Any reflections on whether the processes are cost-effective (or not)
	2.2 Fairness for partners	Processes that support (or not) LMIC partners VfM: allocation of resources to LMIC partners and rationale for this
3. Early progress towards desired outcomes/impacts	3.1 Key intended outcomes and achievements	Intended (ToC) results and outcomes (VfM: research knowledge-into-results)
	3.2 Key unintended outcomes and achievements	Unintended results and outcomes (VfM: research knowledge-into-results)
	3.3 Impact of Covid-19	Effects of the pandemic on delivery and results from the programme
	3.4 Impact of funding cuts	Effects of the spending review funding cuts on delivery and results from the programme
	3.5 Barriers within the context	Risks: in internal/institutional support for research; data availability; political environment and awareness of the challenge/issues; the need for research capacity strengthening (VfM: risks – identification and management)

	3.6 Enabling factors	Factors helping to overcome barriers and deliver outcomes e.g. research capacity; programme support; wider networks
4. Significance and uniqueness of GCRF funding	4.1 Alternative sources of funding	Other funding bodies, or programmes, supporting similar research
	4.2 Aspects unique to GCRF funding	What can't be replaced, e.g. in terms of funding scope or scale (VfM: 'additionality')
	4.3 Changes to funding strategy	Reflections on where funding may come from in the future to progress the research or support new research (if not GCRF)
5. Lessons to inform improvements in the future delivery of the signature investments & promote learning across GCRF	5.1 Lessons for award holders	Capturing any key lessons learned and improvements for future awards
	5.2 Lessons for funders	Capturing any key lessons learned and improvements for future programmes

Annex 2c: Assessment rubrics for EQs 1–4

Table 1: Rubric for EQ 1

Evidence of alignment/misalignment with structures and processes that could be expected in a challenge programme/award			
Beginning: There are some indications that the programme is meeting a few of the management criteria but, overall, structures and processes are nascent or underdeveloped and unlikely to effectively support challenge-led R&I.	Developing: There are some indications that the programme is meeting several of the management criteria but, overall, structures and processes still need further strengthening to effectively support challenge-led R&I.	Good: There are several indications that the programme is meeting most of the management criteria and that, overall, structures and processes effectively support challenge-led R&I.	Exemplary: There are several indications that the programme is meeting almost all of the management criteria and that, overall, structures and processes are highly effective at supporting challenge-led R&I and put the award at the cutting edge of managing challenge R&I for development impact.

Table 2: Rubric for EQ 2

Evidence of alignment/misalignment with structures and processes that could be expected in a challenge programme/award			
Beginning: There are some indications that the award is meeting a few of the capacity strengthening criteria but, overall, structures and processes are nascent or underdeveloped and unlikely to support effective R&I capacity strengthening in LMICs and the UK.	Developing: There are some indications that the award is meeting several of the capacity strengthening criteria but, overall, structures and processes still need further strengthening to support effective R&I capacity strengthening in LMICs and the UK.	Good: There are several indications that the award is meeting most of the capacity strengthening criteria and that, overall, structures and processes effectively support R&I capacity strengthening in LMICs and the UK.	Exemplary: There are several indications that the award is meeting almost all of the capacity strengthening criteria and that, overall, structures and processes are highly effective at supporting R&I capacity strengthening in LMICs and the UK, and put the award at the leading edge of capacity strengthening practice with LMIC partners and UK teams.

Table 3: Rubric for EQ 3

Evidence of alignment/misalignment with structures and processes that could be expected in a challenge programme/award			
<p>Beginning: There are some indications that award processes are efficient, proportionate, fair and offer potential for value for money, but, overall, structures and processes are nascent or underdeveloped to meet the criteria.</p>	<p>Developing: There are some indications that award processes are meeting the criteria – efficient, proportionate, fair and offer potential for value for money – but, overall, structures and processes require further strengthening to meet the criteria effectively.</p>	<p>Good: There are several indications that the award is meeting the criteria and that, overall, structures and processes effectively support efficiency, timeliness, proportionality and fairness for partners.</p>	<p>Exemplary: There are several indications that the award is meeting the criteria and that, overall, structures and processes are highly effective at supporting efficiency, timeliness, proportionality and fairness for partners, and put the award at the leading edge of practice with LMIC partners and UK teams.</p>

Table 4: Rubric for EQ 4

Evidence of alignment/misalignment with structures and processes that could be expected in a challenge programme/award			
<p>Beginning: There are some indications that the award has made some progress to its ToC but, overall, progress is at an early stage (reflect on whether this is as expected or faster/slower than expected, and why).</p>	<p>Developing: There are some indications that the award is progressing along its ToC and meeting early milestones, but further efforts are needed to build up progress to meet as anticipated in the ToC and to ensure that it is well supported and adaptive (reflect on whether progress is as expected or faster/slower than expected, and why).</p>	<p>Good: There are several indications that the award is progressing well along its ToC, is meeting milestones as anticipated and adapting well to unanticipated outcomes and Covid-19, and that progress is well supported (reflect on whether progress is as expected or faster/slower than expected, and why).</p>	<p>Exemplary: There are indications that the award is surpassing expectations of progress along its ToC, is meeting milestones and adapting well to unanticipated outcomes and Covid-19, and that progress is well supported and puts the award at the leading edge of performance.</p>



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