

Annexes to Final Report

Global Challenges Research Fund Evaluation

Module: Relevance and Coherence

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Disclaimer

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Acronyms and abbreviations

BEIS	Department for Business, Energy and Industrial Strategy
Co-I	Co-Investigator
DFID	Department for International Development (former)
DP	Delivery Partner
DSH	Deliberate Self-Harm
EEEP	Enriching Engineering Education Programme
FCDO	Foreign, Commonwealth and Development Office
FCO	Foreign & Commonwealth Office
FLAIR	Future Leaders African Independent Research
GCRF	Global Challenges Research Fund
GESIP	Gender Equality, Social Inclusion and Poverty (Alleviation)
GROW	Growing Research Capacity
GtR	Gateway to Research
HMG	Her Majesty's Government
ICAI	Independent Commission for Aid Impact
IDRC	International Development Research Centre
INI	International Nitrogen Initiative
INMS	International Nitrogen Management System
IPP	International Partnership Programme
KPI	Key performance Indicator
LMIC	Lower and Middle-Income Country
M&E	Monitoring and Evaluation
MEQ	Main Evaluation Question
NGO	Non-Governmental Organisation
ODA	Official Development Assistance
OECD/DAC	Organisation for Economic Co-operation and Development/ Development Assistance Committee
PI	Principal Investigator
R&D	Research and Development
R&I	Research and Innovation
RQ+	Research Quality+
SACEP	South Asia Co-operative Environment Programme
SANC	South Asian Nitrogen Centre
SASHI	South Asia Self-Harm Research Capacity Building Initiative
SCOR	Strategic Coherence of ODA-funded Research
SDG	Sustainable Development Goal
ToC	Theory of Change
UK	United Kingdom
UKCDR	UK Collaborative on Development Research
UKRI	UK Research and Innovation

UKSA UK Space Agency
UNDP United Nations Development Programme
UNEP United Nations Environment Programme

Annex 1. Methodology

Annex 1.1 Detailed methodology

Scope and focus

The objective of the Relevance Assessment module is to assess whether GCRF is funding the ‘right things’ and whether it is coherent with other initiatives addressing the SDGs. This is focused around three sub-EQs as follows:

- To what extent and why is the GCRF portfolio coherent with, aligned to and coordinated with other global, regional and national efforts to achieve the SDGs and address development challenges?
- To what extent and why are GCRF and its components consistent with and responsive to target groups’ needs, SDG priorities and partners’ and funders’/donors’ policies (global, regional, national and subnational)? In essence, is GCRF funding the right things?
- How can the relevance, coherence, fairness, targeting, gender sensitivity, social inclusion and management of GCRF be improved?

Reflecting on the ToC, the module focuses on testing some of the underpinning assumptions, notably that *‘[r]esearchers, innovators and LMIC partners have the expertise to map the landscape and co-identify priorities and research issues.’*

The goal of GCRF is to *‘support cutting-edge research that addresses the challenges faced by developing countries.’*¹ It is therefore important to understand whether GCRF is funding the ‘right things’ in order to position research for impact in relation to these challenges. Experience in the research-for-development field highlights the importance of *‘early and ongoing consideration of the wider context for research application’*, as depicted in the GCRF ToC.² This module therefore asks: how responsive is GCRF research to the needs, policies and priorities of stakeholders at global and national levels, and how responsive does it continue to be if circumstances change?

A closely linked consideration is coherence: how compatible is GCRF with other efforts to address global challenges at the various different levels in which it operates? This is important, as *‘a lack of coherence can lead to duplication of efforts and undermine overall progress to global development goals.’*³

This module will focus on the relevance and coherence of GCRF to both **‘global’** policies and programmes and also to **regional, national and subnational** needs and priorities in selected geographical areas. This module will consider relevance at each of these four levels. Sampling and analysis will take place at each level, but in practice the levels interrelate and overlap significantly, and each level of analysis will provide insights across other levels.

Insights from the analysis at these levels will provide useful background to the Stage 1b process evaluations by identifying key strengths and weaknesses of the Hubs and flagship programmes to explore in more depth to understand process and effectiveness.

¹ Information is available at: <https://www.ukri.org/research/global-challenges-research-fund/>

² GCRF. GCRF Evaluation Foundation Stage, 2018, p. B2.

³ OECD/DAC revised criteria.

Conceptual framework

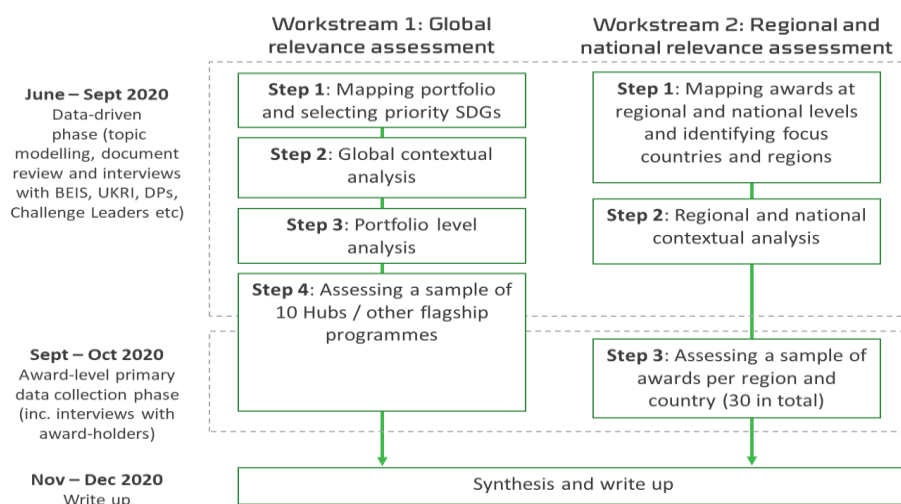
The understanding of relevance and coherence in this module draws on the **OECD/DAC criteria**, and also the **Research Quality+ Assessment Framework**,⁴ which encompasses relevance within its quality dimensions for research. Relevance is framed in relation to research importance – ‘[T]he importance and value to key intended users of the new knowledge and understanding generated by the research’ and how far ‘research processes and products’ are relevant to the needs and priorities of potential users.⁵ The Research Quality+ Framework provides a rubric for understanding relevance, which will provide the starting point for contextualised rubrics developed in this module. The frameworks provide us with a useful way to operationalise this module and develop rubrics aligned with the overall cross-module rubrics-based approach, enabling us to address the sub-evaluation questions and provide insights in relation to assumptions underpinning the ToC on the coherence and relevance of the portfolio. Insights from this module will provide a useful foundation for the Research Quality+ Assessment in Stage 1b of the evaluation.

Methodology

The module incorporates **two workstreams** of analysis: **(1) global** and **(2) regional/national levels**. The global workstream will begin by mapping all GCRF awards to Challenge Areas and SDGs, using both a ‘top-down’ analysis (of the internal BEIS tracker) and a ‘bottom-up’ analysis (using Digital Science topic modelling). The regional/national workstream will begin by mapping awards by SDG by country and region and by analysing patterns and clusters, again across the whole portfolio. In both workstreams the mapping, alongside consultation, will inform the selection of a subset of priority SDGs, which may differ across geographic areas. We will then conduct contextual analyses to explore (global, regional, national and subnational) needs, priorities and the nature of other strategic investments in the relevant sectors.

The methodology is summarised in Figure 4 below.

Figure 1: Relevance module method⁶



⁴ The RQ+ Framework has been applied in over 150 research portfolio assessments led by IDRC, while the OECD/DAC criteria are routinely applied to Research for Development evaluations as part of best practice in the development evaluation field. The OECD/DAC criteria help to strengthen the quality of the evaluation: ‘Each criterion is a different lens or perspective through which the intervention can be viewed. Together, they provide a more comprehensive picture of the intervention, the process of implementation, and the results. The criteria play a normative role. Together they describe the desired attributes of interventions: all interventions should be relevant to the context, coherent with other interventions, achieve their objectives, deliver results in an efficient way, and have positive impacts that last.’ <https://www.oecd.org/dac/evaluation/dacriteriaforevaluatingdevelopmentassistance.htm>

⁵ Ofir, Z., Schwandt, T., Duggan, C. & McLean, R. 2016. Research Quality Plus [RQ+]: A Holistic Approach to Evaluating Research, IDRC. Available at: <https://idl-bnc-idrc.dspacedirect.org/bitstream/handle/10625/56528/IDL-56528.pdf?sequence=2&isAllowed=y>

⁶ Note that subnational priorities were also considered, where possible, within the sample of projects with a national focus.

Data will be analysed and synthesised to assess the relevance and coherence of GCRF research at global, regional, national and subnational levels in relation to the SDGs and other policies, priorities, strategies and investments.

Annex 1.2 OECD/DAC criteria

This module draws on the revised OECD/DAC criteria (December 2019). It incorporates two criteria: Relevance and Coherence. The definitions and key considerations from the revised criteria are detailed below.

Relevance: Is GCRF doing the right things?

'The extent to which the intervention objectives and design respond to beneficiaries, global, country, and partner/institution needs, policies, and priorities and continue to do so if circumstances change.'

Considering:

- Whether/how far the objectives and design of GCRF are sensitive to the economic, environmental, equity, social, political economy and capacity conditions in which it takes place.
- Differences and trade-offs between different priorities or needs.
- Changes in the context and the extent to which the intervention can be (or has been) adapted to remain relevant.
- Is the intervention well designed to address relevant priorities/needs (i.e. its objectives, underlying theory of change, its theory of action, its modus operandi, risk analysis, context analysis, etc.)?
- How far are the objectives/design still appropriate given changed circumstances?

Coherence: How far does GCRF fit?

'The compatibility of the intervention with other interventions in a country, sector or institution.'

Considering:

- The extent to which other interventions (particularly policies) support or undermine the intervention, and vice versa.
- **Internal coherence:** the synergies and interlinkages between:
 - GCRF and other relevant UK and HMG investments and initiatives;
 - GCRF-funded research and other research funded by DPs and conducted by award holders;
 - The consistency of GCRF with relevant international norms and standards to which HMG (and DPs) adhere.
- **External coherence:** the consistency of GCRF with other actors' interventions in the same contexts in which GCRF research is being conducted. *'This includes complementarity, harmonisation and coordination with others, and the extent to which the intervention is adding value while avoiding duplication of effort.'*

Annex 2. Research tools

Annex 2.1 Topic guide: portfolio-level interviews

Interviewee(s)	Organisation
Interviewer(s)	Date & time of interview
General notes (e.g. interview was short, participant was distracted, etc.)	

INTRODUCTION

General introduction:	
<ul style="list-style-type: none"> - We are evaluators from Itad, RAND and Digital Science – a UK-based consortium of research organisations with specialisms in evaluation - We have been commissioned by BEIS to carry out an evaluation of GCRF <ul style="list-style-type: none"> • Our evaluation for 2020–21 covers four main areas of GCRF – management; relevance; fairness; and gender equality, social inclusion and poverty – which our interviews seek to delve into. The focus of this interview is... • The purpose of this interview is to understand... how UKRI ensures that its GCRF research responds to global and/or local needs and priorities. And to understand how the Challenge Areas are coordinated, led and managed - The interview will last between 45 and 60 minutes 	
Consent:	
<ul style="list-style-type: none"> - 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. - 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? 	
Did interviewee(s) consent to be interviewed?	Yes/No
Recording consent [only if you choose to record]:	
<ul style="list-style-type: none"> - 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? 	
Did interviewee(s) consent to be interviewed?	Yes/No/N/A

QUESTIONS

<p>We're looking at both relevance and coherence in the evaluation. <u>Relevance</u> relates to how far GCRF research is consistent with and responsive to global, regional and national challenges, needs and priorities.</p> <p>First, please can you talk me through the structure of the UKRI GCRF portfolio?</p>

How do you ensure that GCRF research responds to global or local needs and priorities? Please could you talk me through an example of what this looks like, in the context of a programme or an award? *Probe, especially for BEIS and UKRI: what strategies or systems do you have to help make sure research is relevant?*

How are you thinking about this now compared to when GCRF began – have there been any changes?

Coherence relates to how far GCRF research is aligned to and coordinated with other global, regional and national policies and initiatives addressing similar challenges.

How do you ensure that GCRF research aligns and coordinates with other global or local initiatives that address similar challenges? Please could you talk me through an example of what this looks like, in the context of a programme or an award? *Probe, especially for BEIS and UKRI: what strategies or systems do you have to help make sure research is coherent with other initiatives?*

How are you thinking about this now compared to when GCRF began – have there been any changes?

Who else should we speak to and what documents should we look at to find out more?

Annex 2.2 Topic guide: programme-level interviews

This template contains questions for the Relevance module **global (programme-level) cases**. The interviewer should adapt this document for each interview.

Interviewee(s)	Organisation
Interviewer(s)	Date & time of interview
Name of programme	
General notes (e.g. interview was short, participant was distracted, etc.)	

INTRODUCTION

General introduction:	
<ul style="list-style-type: none"> - We are evaluators from a UK-based consortium of research organisations with specialisms in evaluation. <i>(Introduce the other interviewers in the call, and say which module they are part of)</i> - We have been commissioned by BEIS to carry out an evaluation of GCRF. - The purpose of this interview is to understand how relevance and coherence have been considered within the xxx programme. - The interview will last up to 60 minutes. 	
Consent:	
<ul style="list-style-type: none"> - As this is an independent evaluation, all interviews are confidential, anonymised and non-attributable. Everything you tell us will be confidential, and we take care to maintain anonymity in our data protocols. However, we would like to use one or two anonymous and non-attributed quotes from this interview, if relevant. - 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? 	
Did interviewee(s) consent to be interviewed?	Yes/No
Recording consent [only if you choose to record]:	
<ul style="list-style-type: none"> - 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? 	
Did interviewee(s) consent to be interviewed?	Yes/No/N/A

QUESTIONS

We're looking at both relevance and coherence in the evaluation. Relevance relates to how far GCRF activities are consistent with and responsive to global, regional and national challenges, needs and priorities.

1. What did the programme do to consider global challenges, needs and priorities during the design phase?

<ul style="list-style-type: none"> • What global needs and challenges were a priority for you when designing the programme? Why? • What guidance or support did you get from BEIS/UKRI [for Research Council DPs only] to incorporate global challenges and priorities into the programme design? Has this changed over time? • Did you conduct any context analysis/mapping/stakeholder consultation activities during the design phase to help ensure relevance to global challenges? Please could you describe these? Why/why not? <i>[If yes – ask to see these documents if we don't have them already]</i> • Did you conduct any stakeholder consultation or engagement activities during the programme design phase, to help identify needs and priorities? Who did you consult and what did this look like – please could you give some examples? <i>[Ask to see any documents providing more detail on stakeholder engagement processes]</i> • Did you use or refer to the GCRF Challenge Areas or the Sustainable Development Goals when identifying needs and priorities? In what ways?
<p>[Notes from response go here]</p>
<p>2. How did you ensure the research/awards funded by the programme are responsive to global, regional and national needs and priorities?</p> <ul style="list-style-type: none"> • How is relevance factored into decision making about which awards to fund? • Do you give any guidance or support to award holders around this? • What strategies or systems do you have to help make sure research is relevant to local needs or challenges? Is this being monitored?
<p>[Notes from response go here]</p>
<p>I'd now like to ask a few questions relating to coherence – which is another dimension we're considering in the evaluation. <u>Coherence</u> relates to how far GCRF activities are aligned to and coordinated with other policies and initiatives addressing similar challenges.</p> <p>3. During the programme design stage or beyond, did you do anything to identify interconnections or overlaps with other global programmes or initiatives working to address similar challenges?</p> <ul style="list-style-type: none"> • Have you coordinated or collaborated with any of these initiatives, during the design phase or beyond? <i>[Ask to see any documents providing more detail on stakeholder mapping processes]</i> • Who have you collaborated with and in what ways? • Have these relationships informed your programme strategies or activities in any way? • Did you get any guidance or support from BEIS/UKRI around this issue of coherence? Has this changed over time? • Was coherence with other initiatives a major consideration for you when designing and implementing the programme? Why/why not?
<p>[Notes from response go here]</p>

<p>4. Do you give any guidance or support to award holders to help them ensure awards are aligned and coordinated with other national or regional initiatives working on similar challenges?</p> <ul style="list-style-type: none">• Does coherence factor into decision making about which awards to fund?
<p>[Notes from response go here]</p>
<p>5. [If the programme was active as of March 2020] Has Covid-19 influenced the programme's focus and priorities in any ways? Did you make any adaptations – in terms of areas of focus and objectives – in response? Please could you describe what you did and why?</p>
<p>[Notes from response go here]</p>
<p>6. Is there anyone else we should speak to, to find out more about what we've discussed today? <i>Probe to see if there are any key <u>non-GCRF</u> contacts we should speak to – e.g. external stakeholders consulted during the research process.</i></p>
<p>7. Are there any other documents you think we should look at? <i>Remind respondent to share documents discussed throughout the interview. Note – we're particularly interested in documents from the list below – but I wouldn't read this list out directly or be too pushy, as GCRF stakeholders are sensitive about document requests!</i></p> <ul style="list-style-type: none">• Any key programme strategy or design documents• Any programme-level reporting documents (e.g. annual reviews, evaluations)• Any details on programme-level contextual, problem, stakeholder or political economy analysis activities and/or stakeholder engagement activities (e.g. workshop notes, reports)
<p>[Notes from response go here]</p>

Annex 2.3 Topic guide: award-level interviews

This template contains questions for the Relevance module and also the priority questions for each of the three other modules. The interviewer should adapt this document for each interview, only asking questions for the additional module identified in the 'DP Interviews Master list' spreadsheet.

Interviewee(s)	Organisation
Interviewer(s)	Date and time of interview
Name of award	
General notes (e.g. <i>interview was short, participant was distracted, etc.</i>)	

INTRODUCTION

General introduction:	
<ul style="list-style-type: none"> - We are evaluators from a UK-based consortium of research organisations with specialisms in evaluation. (<i>Introduce the other interviewers in the call, and say which module they are part of</i>) - We have been commissioned by BEIS to carry out an evaluation of GCRF. - The purpose of this interview is to understand how your award has addressed three of the foundational issues being considered by the evaluation this year – relevance, fairness, and gender, social inclusion and poverty. - The interview will last up to 60 minutes (for relevance only interviews)/up to 90 minutes (for interviews shared by other modules). 	
Consent:	
<ul style="list-style-type: none"> - As this is an independent evaluation, all interviews are confidential, anonymised and non-attributable. Everything you tell us will be confidential, and we take care to maintain anonymity in our data protocols. However, we would like to use one or two anonymous and non-attributed quotes from this interview, if relevant. - 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? 	
Did interviewee(s) consent to be interviewed?	Yes/No
Recording consent [only if you choose to record]:	
<ul style="list-style-type: none"> - 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? 	
Did interviewee(s) consent to be interviewed?	Yes/No/N/A

QUESTIONS

We're looking at both relevance and coherence in the evaluation. Relevance relates to how far GCRF activities are consistent with and responsive to global, regional and national challenges, needs and priorities.

- 1.** How did you/do you plan to think about regional, national or local needs and priorities in [xx countries/region] when designing and carrying out your project?
- Was/Is this a major consideration for you when designing and conducting your activities? Why/why not?
 - Did you/do you plan to do any needs assessments or problem analysis type activities during the design phase? Please could you describe these? Why/why not? *[If yes – ask to see these documents if we don't have them already]*
 - Did you use or refer to the GCRF Challenge Areas or the Sustainable Development Goals when identifying needs and priorities? In what ways?

[Notes from response go here]

- 2.** How did the project consult or engage with other stakeholders, beyond formal partners? (this can include, for example, government, NGOs, community groups) Did you/do you plan to do any stakeholder consultation or engagement during the design and implementation stages? Can you give examples of specific engagement activities? **[Note: this question spans Relevance and Fairness]**
- Who did you/do you plan to consult, and how did you go about this? *[Ask to see any documents providing more detail on stakeholder engagement processes]*
 - What did you/do you plan to consider when thinking about who to engage?
 - At what points did you/do you plan consult or engage stakeholders?
 - Did you/do you plan to include any non-academic stakeholders?
 - Did stakeholder engagement inform the design, processes or outputs in any ways? Please could you give some examples?

[Notes from response go here]

Coherence relates to how far GCRF activities are aligned to and coordinated with other policies and initiatives addressing similar challenges.

- 3.** Did you/do you plan to identify other research or initiatives that were working on similar issues to your award, when designing your project? *[Ask to see any documents providing more detail on stakeholder mapping processes]*
- Since you started work, have you become aware of any other similar initiatives? Do you plan to engage with them, and how?
 - Did you/do you plan to engage or collaborate with these initiatives during the course of the project? In what ways/through which forums?
 - How did this inform your activities?
 - Was/Is coherence with other initiatives a major consideration for you when designing and carrying out your project? Why/why not?

[Notes from response go here]

4. [If the award was active as of March 2020]: Did Covid-19 present any opportunities for shifting the focus of your research/project? Did you make any adaptations – in terms of areas of focus and objectives – in response? Please could you describe what you did and why?

[Notes from response go here]

5. Is there anyone else we should speak to, to find out more about what we've discussed today? *Probe to see if there are any key non-GCRF contacts we should speak to – e.g. external stakeholders consulted during the research process.*

6. Are there any other documents you think we should look at? *Remind respondent to share documents discussed throughout the interview. Please be sensitive about this for UKRI award respondents – do not ask them to share reporting documents or proposals as UKRI has agreed to share these centrally. However, we can ask to see specific documents mentioned in the interview that won't be available centrally (e.g. workshop notes, stakeholder analysis, etc).*

[Notes from response go here]

Annex 2.4 Award analysis and write-up template

Instructions

The template contains three rubrics and an additional evidence table relating to Covid-19. The rubrics are designed to allow us to make systematic judgements on relevance and coherence across the range of awards included in our sample.

Extract relevant quotes and details from the documents and interviews into each rubric in relation to the questions included in the table. This can be in bullet point form but should be comprehensible to someone who is unfamiliar with the award. You should include both positive evidence (which indicates the relevance or coherence of the award) and negative evidence (which suggests problems or limitations with the relevance or coherence of the award).

Drawing on contextual analysis

One of the key sources you should consult is the contextual analysis, which comes in three parts:

Part 1: overarching country-level context analysis. Please read this in full for your award country of focus. You are looking to see whether the broad focus of the award aligns with key high-level needs and priorities at a national or regional level.

Part 2: Challenge Area contextual analysis. Please look for evidence relating to the Challenge Area your award falls under. You are looking to see whether the award is addressing important issues or challenges at the Challenge Area level (relevance), as well as links to or overlaps with other major policies and programmes working in this area (coherence).

Part 3: award-level contextual analysis. Please look for evidence relating to your specific award. You are looking to see whether the award is addressing important issues or challenges specific to the topic (relevance) as well as links to or overlaps with other major policies and programmes (coherence).

The contextual analysis was light touch and is not a fully comprehensive overview of issues and challenges in each of the GCRF countries. Therefore, if you find no clear link between the contextual analysis and the award, this does not necessarily mean the award is not relevant or coherent (for example, the award may be focusing on very niche or innovative issues that might not be on the national or regional radar despite being very important). You should consider the extent of overlap between the contextual analysis and the award focus *alongside* the other sources in order to come to a judgement.

Once you have extracted all the relevance evidence, highlight whether this evidence indicates 'beginning', 'developing', 'good' or 'exemplary' practice, based on the rubric descriptions, and justify why you have selected this in the 'rationale' box underneath.

Making judgements about your confidence in the evidence

Once you've made a judgement on where the award fits against each rubric, please consider how confident you are in the strength of evidence underpinning your judgement. This is based on how strongly the evidence emerges from the individual sources, as well as the degree of triangulation possible between the sources.

Red = low confidence in the evidence (only one source – interview or document – or very low-detail/low quality evidence from multiple sources)

Amber = medium confidence in the evidence (two sources with a sufficient degree of detail)

Green = high confidence in the evidence (3+ sources with a good degree of detail, including clear alignment or misalignment with the contextual analysis)

Author:

AWARD INFORMATION

Award name
Unique BEIS ID (from <u>award spreadsheet</u>)
PI name
Lead institution
Primary research partners
Start – end dates
Focus country/region
Total budget
Delivery partner
Funding call
Type of award <i>(e.g. research grant, training grant, fellowship, networking grant)</i>
Summary of award <i>Brief (1 paragraph) summary of award and key objectives, including countries of focus and intended impacts</i>

CASE INFORMATION

List of documents reviewed for this case
Unique IDs of interviewees (from <u>central interview log</u> – column A)
Any data or methodological limitations? <i>(E.g. only one interview conducted; suspicion of bias in interviews; key document gaps)</i>

Rubric 1: Relevance

<p>RELEVANCE: Research importance: what is the potential value to key intended users of the knowledge and innovations generated by the research?</p> <p><i>You are looking for evidence that that this area of enquiry has the potential to contribute to local priorities and needs. For example – have award holders considered the broader context, existing research, and evidence gaps (e.g. through needs assessments or contextual analysis activities)? Is there any evidence of interest in and demand for the solutions being generated by the award holder, from relevant stakeholders? Include insights from the national/regional contextual analysis to highlight where research is aligned with or divergent from national policies and challenges.</i></p>				
<p>Source (interview number/document name)</p>		<p>Evidence (include verbatim quotes where possible. Insert new rows if needed)</p> <p><i>Include both positive and negative evidence</i></p>		
<p>Evidence of alignment/misalignment with our contextual analysis? See ‘instructions’ above for details on what to include</p>				
<p>Not enough evidence to make a judgement</p>	<p>Beginning: There are some indications that the award may contribute to a local priority, a key development policy or strategy, or an emerging area that might demand solutions in the near future. However, needs assessments and justification for the work are absent or unconvincing.</p>	<p>Developing: There are some indications that the award might contribute to a local priority, a key development policy or an emerging area that might demand solutions in the near future. A focus on this area of work at this time appears sufficiently justified.</p>	<p>Good: There are several indications that the award might contribute to an important local priority, a key development policy or strategy, or an emerging area of some significance that might demand solutions in the near future. A focus on this area of work at this time has been well justified.</p>	<p>Exemplary: The research is already recognised as having the potential to address a critical local priority, a key development policy or strategy or an important emerging area that is highly likely to demand solutions in the near future. A focus on this area of work at this time puts the researchers at the cutting edge of an active and/or important field of work.</p>

<p>Rationale for this judgement: <i>(please give details on why this award is ‘beginning’, ‘developing’, ‘good’ or ‘exemplary’, drawing on the evidence presented above):</i></p>
<p>Confidence in evidence: (red, amber or green – see instructions above for details)</p>
<p>Reasons why the award holder considered relevance to the extent they did/made the level of effort they did to ensure the relevance of their research (e.g. requirements of the award proposal process; encouragement and support from programme managers; personal experience in the field among the research team)</p>

Rubric 2: Coherence

<p>COHERENCE: Alignment with other research and initiatives: how has the award identified interconnections and overlaps with other relevant efforts to address development challenges, and how has this informed research?</p> <p><i>You are looking for evidence that award holders actively considered and attempted to identify potential interconnections and overlaps with other programmes and initiatives working on similar challenges (global, national or subnational) and worked to ensure GCRF research aligned and coordinated with these. Include insights from the national/regional contextual analysis to highlight where research has (or has not) coordinated with other important initiatives identified in the contextual analysis stage.</i></p>	
<p>Source (interview number/document name)</p>	<p>Evidence (include verbatim quotes where possible. Insert new rows if needed)</p>

Evidence of alignment/misalignment with our contextual analysis?				
Not enough evidence to make a judgement	Beginning: No indication that efforts were made to identify interconnections and overlaps with other initiatives.	Developing: Award holders are aware of potential interconnections and overlaps with other relevant (global, national or subnational) initiatives and have factored this knowledge into research design; however there was no formal stakeholder analysis or active engagement with these initiatives.	Good: Award holders formally or systematically (e.g. through stakeholder analysis or other similar activities) considered potential interconnections and overlaps with other initiatives, and have actively engaged with these initiatives to inform the research design and activities.	Exemplary: Award holders formally considered and mapped potential interconnections and overlaps with other initiatives, and have actively engaged with these initiatives throughout the research process. There are tangible examples of collaboration and coordination between the research and other initiatives, to share learning and capitalise on synergies.
Rationale for this judgement: <i>(please give details on why this award is 'beginning', 'developing', 'good' or 'exemplary', drawing on the evidence presented above):</i>				
Confidence in evidence: <i>(red, amber or green – see instructions above for details)</i>				
Reasons why the award holder made the level of effort they did to identify interconnections and overlaps, and engage with other initiatives (e.g. encouragement from programme managers; personal commitment to ensuring coherence among the research team)				

Rubric 3: Relevance and coherence

<p>RELEVANCE AND COHERENCE: Stakeholder engagement: were relevant stakeholders consulted on/engaged in the research design, and in what ways? How far did this inform research processes and products?</p> <p><i>You are looking for evidence that award holders actively consulted on and engaged with relevant national or regional stakeholders when designing and conducting the research – and whether this engagement helped to shape the research in meaningful ways.</i></p>				
<p>Source (interview number/document name)</p>		<p>Evidence (include verbatim quotes where possible. Insert new rows if needed)</p>		
<p> </p>		<p> </p>		
<p> </p>		<p> </p>		
<p>Not enough evidence to make a judgement</p>	<p>Beginning: No or very few relevant national or regional stakeholders (beyond the immediate research team) were consulted when designing or carrying out the research. Limited efforts were made to identify relevant stakeholders.</p>	<p>Developing: Some relevant national or regional stakeholders were consulted during the research process, but the range of stakeholders consulted was limited and there is limited evidence that this informed the research in a meaningful way.</p>	<p>Good: A range of relevant national or regional stakeholders were consulted and engaged in meaningful ways during the research design phase. There are indications that this has informed research processes and products.</p>	<p>Exemplary: A wide range of (academic and non-academic) relevant national or regional stakeholders were engaged consistently in a systematic way, both during research design and while the research was being conducted, and there are tangible examples of how this has informed research processes and products.</p>
<p>Rationale for this judgement <i>(please give details on why this award is ‘beginning’, ‘developing’, ‘good’ or ‘exemplary’, drawing on the evidence presented above):</i></p> <p> </p>				
<p>Confidence in evidence: <i>(red, amber or green – see instructions above for details)</i></p> <p> </p>				

Reasons *why* the award holder engaged with stakeholders to the extent they did (e.g. encouragement from programme managers; personal commitment to stakeholder engagement among the research team)

Covid insights

Covid-19: Did the award holder make any adaptations to contribute to the global response to Covid-19 and coordinate with other relevant actors?

This dimension will not be relevant in every case. However, consider it for awards still active during the Covid-19 pandemic and attempting to address challenges likely to be influenced or exacerbated by Covid-19. You are looking for evidence on how far Covid-19 was taken into consideration by award holders, and adjustments made to adapt to the change in context and new challenges posed by the pandemic.

Source (interview number/document name)	Evidence (include verbatim quotes where possible. Insert new rows if needed)

Summary: How far did the award holder adapt and respond to Covid-19, and why?

Overall summary

Overall summary and areas for improvement (approx. 200–300 words)

- What are your overall reflections on the relevance and coherence of this award?
- Are there any clear areas for improvement?

Annex 2.5 Programme analysis and write-up template

Author:

PROGRAMME INFORMATION

Programme name
Size of programme (funding)
Duration of programme (start and end dates)
Programme lead and DPs involved
Unique IDs of interviewees
Brief summary of programme and key objectives <i>Including geographical and Challenge Area focus, number of funded projects/awards/calls (please indicate terminology) and their names (unless too many to summarise)</i>

Provide a narrative summary of the evidence in the boxes below. This can be done in bullet points – a polished narrative is not required. Please cite all sources in brackets and/or footnotes, using the unique interview ID codes and document names.

Relevance

How and through which processes has the programme considered global challenges, needs and priorities during the design phase and beyond?

- *What needs and challenges were a priority?*
- *What guidance/support did the programme get from BEIS/UKRI on relevance?*
- *What activities and processes did the programme go through to ensure relevance?*
- *How did the Challenge Areas and/or SDGs factor into the thinking?*
- *Was any stakeholder consultation conducted at the programme level, with whom, and what did this look like? How did it inform programme design?*

How and through which processes has the programme supported award holders to think about relevance?

- *What systems, strategies and guidance are in place to ensure relevance at the award level, and how do they do this?*
- *How is relevance factored into decision making about which awards to fund?*

Coherence

How and through which processes has the programme attempted to coordinate with/ collaborate with other global research programmes or other initiatives working on similar issues?

- *Who/with which initiatives has the programme collaborated/coordinated with, and in what ways?*
- *How have these relationships informed the programme activities?*
- *What guidance/support did the programme get from BEIS/UKRI on coherence?*
- *How important was this issue of coherence for the programme, and why?*

How and through which processes has the programme supported award holders to think about coherence?

- *What systems, strategies and guidance are in place to ensure coherence at the award level, and how do they do this?*
- *How is coherence factored into decision making about which awards to fund?*
- *How important has this consideration been for the programme, and why?*

Covid-19

Did the programme make any adaptations to contribute to the global response to Covid-19 and coordinate with other relevant actors?

- *In what ways did the programme adapt and why?*

Overall summary

- What are your overall reflections on how this programme has considered and addressed relevance and coherence?
- Are there any clear areas for improvement?

Annex 3. Topic modelling

A key part of our approach uses quantitative data science approaches to analyse GCRF's awards and their associated publications, patents and policy outputs, among others, to identify broad trends and patterns about the portfolio and how it has been performing, in LMICs and globally.

Our partner, Digital Science, manages a large database of linked scholarly information, Dimensions, one of the most comprehensive in global research.⁷ Dimensions offers a comprehensive collection of linked data in a single platform: from grants, publications, datasets and clinical trials to patents and policy documents. The database links publications and citations, investigators and their institutions, with related grants and supporting funders, article metrics, the related patents, clinical trials, policy documents and datasets to deliver a holistic view of the research landscape. By December 2019, Dimensions contained more than 106 million publications.

We have been curating and developing the GCRF dataset by:

- Locating publications and other outputs from GCRF awards in Dimensions, matching the GCRF grants reported by BEIS to grants in Dimensions via their grant number.
- Drawing on GCRF project information from Gateway to Research and ResearchFish to combine with the Dimensions analysis.
- Aggregating information provided by DPs in a range of different formats summarising their portfolio, as summarised in the table below.

Just over 5000 awards were identified and analysed based on these sources of data.

Delivery partner	Source	Additional data sourced/assumptions
UKRI and the Research Councils	BEIS tracker grant IDs matched to Gateway to Research records	
British Academy	BEIS tracker	
Research England	Annex D monitoring returns (2018/19) aggregated for each university	
Higher Education Funding Council of Wales	Custom report to BEIS	
Department for the Economy Northern Ireland	Custom report to BEIS	
Academy of Medical Sciences	Custom reports for GCRF Networking grants and Springboard	
Innovate UK	Custom reports for Agri-tech Catalyst and Energy Catalyst programmes	

⁷ Information is available at: <https://www.dimensions.ai>

Delivery partner	Source	Additional data sourced/assumptions
Royal Academy of Engineering	Custom reports for Engineering for Development Research Fellowships, Engineering a Better World, Higher Education Partnerships in sub-Saharan Africa and Enriching Engineering Education Programme	Award amounts were sourced from the BEIS tracker. In the case of the Africa Prize, individual award amounts could not be sourced, and an approximate value of £12,000 was used
Royal Society	Custom report prepared for this analysis	
Scottish Funding Council	Custom report to BEIS	
UK Space Agency	Custom report to BEIS, with amounts sourced from the BEIS tracker	

One of the techniques we have used with this dataset is **topic modelling**. Topic modelling is an innovative data science technique that draws on a range of informative interpretations from a large text corpus. Topics are different to themes or categories; they represent the words that appear together in documents, which are then processed, weighted and analysed with reference to natural language to produce a rich semantic and conceptual analysis of the documents in the corpus.⁸

We have analysed topics in the dataset relating to GCRF to draw out information about coverage of SDGs, GCRF Challenge Areas and more specific information about how gender, poverty and social inclusion are integrated into grants and publications.

In addition to topic modelling, we also analysed additional information on the awards and the publications associated with them to inform the modules conducted in Stage 1a. In particular we looked at the range and nature of different outputs from the GCRF portfolio and we analysed the role of Southern partners in awards, assessing where they were named as co-investigators and where publications resulting from GCRF awards were co-authored by individuals based at LMIC institutions. This analysis was conducted based on the data sourced from Dimensions and Gateway to Research only, and therefore likely has more partial coverage of some parts of the portfolio not covered in Gateway to Research.

There are, however, a number of caveats to this analysis:

- Data structure:** The data we received from different DPs to inform the topic modelling analysis was varied in terms of content and structure. The level of detail provided and the amount and purpose of the text available to inform the topic modelling analysis differed between the different formats. Even within DPs we were sometimes provided with separate datasets for different programmes which offered differing levels of detail on the content of awards. Because of this variation, although we conducted topic modelling across all DPs, our analysis of the use of key words related to gender, poverty and social inclusion is limited to DPs covered in Gateway to Research (i.e. UKRI and the Research Councils) as the information available for analysis in that

⁸ Draux, H. and Szomszor, M. 2017. Topic Modelling of Research in the Arts and Humanities. An analysis of AHRC grant applications, Digital Research Reports, November 2017. Available at: https://digitalscience.figshare.com/articles/journal_contribution/Topic_Modelling_of_Research_in_the_Arts_and_Humanities/5621260/1

dataset is more comprehensive. Looking for keywords in the text provided by other DPs (typically just an abstract) would give a misleading picture and would be unlikely to provide meaningful information on the extent to which these concepts were addressed in those awards. Even within Gateway to Research this picture is likely to have limitations since it consists only of the abstract, the potential impact and the technical approach, and there are likely to be deeper nuances to the awards that could be picked up by further data and analysis.

- **Data quality:** The quality and completeness of the datasets provided will vary depending on their source. For example, GtR data is self-reported by award holders, so the quality and detail provided is likely highly variable. Prior analysis has shown that the data is typically partially and suffers from under- rather than over-inclusion. Other DPs have also provided data which typically includes some form of abstract, and the content of this will depend on both the specified requirements of the DPs and programmes in question and the information that award holders have included in the text. Therefore the quality of the data is likely to be variable, and as such the analysis should be considered a partial rather than a complete picture.
- **Data collection point:** Topic modelling analysis was conducted primarily on information such as abstracts, which are likely to be produced either at the proposal stage, perhaps with refinement at project inception. However, we are aware that in R&I, what is stated in proposal documents does not reflect what happens in practice. Proposals are written to reflect the funding call requirements, and monitoring reports are often written to reflect positive performance and are often narrowly focused to the parameters of the grant, missing the wider breadth of spin-off partnerships, networks, and applications of R&I outside the grant. This limits what this kind of dataset can tell us about what is taking place in the awards themselves.

Figure 2: Award topic (Digital Science Gateway to Research dataset, Sept 2020), cross-referenced by Challenge Area classification (BEIS tracker Q1 2020)

Top ten topics of awards classified under Challenge Area:	No. awards
<i>Reduce conflict and promote peace, justice and humanitarian action</i>	
+peace violence civil society	127
*inclusive students youth	27
**inequalities equality poverty	18
*indigenous production cultural heritage	11
*violence human rights inequalities	11
**students higher education UNESCO	5
+disaster resilience disaster risk	5
*climate climate change environmental	4
+energy electricity power	4
***inclusive civil society sustainability	3

Top ten topics of awards classified under Challenge Area:	No. awards
<i>Reduce poverty and inequality, including gender inequalities</i>	
**inequalities equality poverty	45
*violence human rights inequalities	32
+peace violence civil society	28
***poverty environmental livelihoods	17
*inclusive students youth	11
*indigenous production cultural heritage	11
+disaster resilience disaster risk	6
+energy electricity power	6
+mental mental health assessment	6
***inclusive civil society sustainability	4

Figure 3: Topic clusters: East Africa and South Asia



Note: This figure shows the results of a topic map including 1050 GCRF awards on the Gateway to Research database, identified using Digital Science topic modelling in September 2020, taking into account all countries and regions mentioned in GtR abstracts to show thematic clusters of awards in specific geographical areas. This figure shows East Africa and South Asia only (priority areas selected for the Relevance module).



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