Multi-Hazards and Systemic Risks Call Webinar

UK Research & Innovation

April 2019
Overview

Part 1: GCRF Resilience Portfolio
Mark Pelling & John Rees, GCRF Resilience Challenge Leaders

Part 2: Multi-Hazards and Systemic Risks Call Scope
Ruth Kelman, NERC Head of Water Research

Part 3: Programme Requirements & Application Process
Sarah Blackburn, NERC Senior GCRF Challenge Manager
Overview

Part 1: GCRF Resilience Portfolio
Mark Pelling & John Rees, GCRF Resilience Challenge Leaders
Global Challenges Research Fund

- Address global challenges through disciplinary and interdisciplinary research
- Strengthening capability for research and innovation within developing countries and the UK
- Agile response to emergencies and opportunities

“Cutting edge research which addresses the problems faced by developing countries”

- 2015 Government Spending Review Outcomes
Global Context

UN Sustainable Development Goals

1. No Poverty
2. Zero Hunger
3. Good Health and Well-being
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation
7. Affordable and Clean Energy
8. Decent Work and Economic Growth
9. Industry, Innovation and Infrastructure
10. Reduced Inequalities
11. Sustainable Cities and Communities
12. Responsible Consumption and Production
13. Climate Action
14. Life Below Water
15. Life on Land
16. Peace, Justice and Strong Institutions
17. Partnerships for the Goals
GCRF Research Agenda for Change

Breadth of Ambition

**Equitable access to sustainable development**

to create new knowledge and drive innovation that helps to ensure that everyone across the globe can prosper through access to health, food, water, education, energy etc.

**Sustainable economies and societies**

to identify new responses to the challenges arising from changes in population, technology, consumption and pressure on the environment

**Human rights, good governance and social justice**

to understand how to strengthen the institutions that underpin peaceful societies, good governance, respect for human rights and the rule of law
Distribution of GCRF Projects
GCRF Challenge Areas/Portfolios

Portfolios align with/respond to SDGs with intent to:

- Disseminate, combine, and scale up excellent research and impact
- Have real impact on SDGs
- Set benchmarks for best practice in research for development
- Make sure that GCRF is coherent, more than the ‘sum of its parts’

Six strategic GCRF Challenge Areas/Portfolios developed:

- Global Health
- Food Systems
- Security (Protracted Conflict, Refugee Crises and Forced Displacement)
- Education
- Resilience to Environmental Shocks and Change
- Cities and Sustainable Infrastructure
Resilience Portfolio
Sendai Framework
Environmental Risks are Increasing

- Disasters exact a huge toll: hundreds of thousands of lives and US$1.5 trillion lost in the last decade
- Economic losses from disasters average US$250–300 billion annually

Tehran
Pop. 12,000,000
Destroyed
855
958
1177
1830

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GCRF Context to Resilience Calls

GCRF legacy research:
- including: NERC/AHRC/ESRC Building Resilience programme

GCRF currently active:
- including: Hubs, Growing Research Capability

GCRF future:
- including: UKRI GCRF Collective Programme—‘Equitable Resilience: ensuring resilience enhances the SDGs’
GCRF Resilience Challenge Portfolio

GCRF Resilience Portfolio (June 2018): 209 projects, 78 countries, closest synergies with urban and food security portfolios

GCRF portfolio research leadership observed:

- Integrated hazards and vulnerability work for fuller range of policy/practice options
- Local and scientific knowledges or participatory methods deployed alongside technical analysis to understand adaptive experience, behaviour and policy/practice options

Emerging:

- Knowledge production methods—e.g. role of uncertainty and ambiguity in risk modelling, policy analysis and communication
- The role of mediating systems in the transition from hazard to impact: emphasis on infrastructure, decision-making, everyday practices, beliefs
Equitable Resilience

“The Sustainable Development Goals (SDGs) and Sendai Framework (SF) call for resilience that leaves No-one Behind and Builds Back Better”

“There is a demand for pro-poor focused development policy and practice that can better meet the connected aims of improved equity and more resilient development”
Multi-Hazards and Systemic Risks

**Motivation:** The UNFCCC and WTO have highlighted the importance of environmental shocks, and stresses, as triggers for wider risk cascades spreading across sectors and resulting in economic disruption, political instability and health crisis, particularly in low and middle income countries.

**Projects will:**
- improve understanding of how environmental shocks and stresses propagate through systems to create impacts across sectors
- help developing world countries build resilience to these systemic risks
Overview

Part 2: Multi-Hazards and Systemic Risks Call Scope
Ruth Kelman, NERC Head of Water Research
Multi-Hazards and Systemic Risks

Multiple Hazard Events:
• Interaction of discrete natural hazards (e.g. floods, droughts, earthquakes and volcanic eruptions)
• Interaction over time of natural hazards with shocks and stresses in social, cultural, political, economic, health and technological systems

Systemic Risks: Risks to multiple interlinked systems
➢ can increase the impact of multi-hazard events with impacts that may be unexpected and manifest in sectors or geographies removed from the initial hazard

Aim: To provide a better understanding of the drivers of multi-hazard events and how the impacts of these events cascade through socio-economic systems and to use this knowledge to determine which interventions and policies are effective at mitigating the risks, particularly for vulnerable groups
Call Scope

**Programme Focus:** Multiple natural hazards and interrelated environmental, social, economic, cultural, historical, and health risks and effects that can be triggered by these events, that can initiate natural hazards, or can amplify or compound their impacts.

**Research Challenges:**
1. Understanding the drivers of multi-hazard events
2. Characterising the cumulative impacts of risk chains
3. Increasing resilience to multi-hazards and systemic risks

Projects must address all three Research Challenges

**Programme Goal:** Determine how to mitigate the impact of multi-hazards in Low and Middle Income countries (LMICs)

**Case study approach envisaged:**
- explore multi-hazards and systemic risks in a particular geographic setting
Understanding the Drivers of Multi-Hazards Events

Questions to be addressed could include, but are not limited to:

- How do physical processes interact to create multi-hazards events, i.e. what are the trigger mechanisms and relationships between discrete hazards?
- How can hazard events increase the probability of additional hazards occurring?
- What is the likelihood of concurrent or coincident hazards; and what are their likely impacts?
- How can secondary hazards amplify or exacerbate the impacts of the initial hazard?
- What effect do antecedent conditions have on the impacts of multi-hazards events?
Characterising the Cumulative Impacts of Risk Chains

Questions to be addressed could include, but are not limited to:

- What are the interactions between hazards and potential receptors including environmental, technological and social, cultural, and economic systems (people, infrastructure, buildings, heritage, etc.) and how do risks cascade through and across systems?
- How can dynamic vulnerability associated with accumulation or contagion of risks be determined?
- How do long-term trends and chronic hazards, such as climate change, political instability or demographic changes, affect vulnerability to multi-hazards?
- Can environmental, social, and cultural histories provide insights into how and why vulnerability and risk change spatially and temporally?
- How do global, national, regional, and local contextual factors and processes mediate the contagion of risk at the local level?
- Can systems-based analysis and models be developed to better account for multiple and systemic risks, the dynamics of these over time?
Increasing Resilience to Multi-Hazards & Systemic Risks

Questions to be addressed could include, but are not limited to:

- How can multi-hazards and associated systemic risks be managed and communicated effectively, taking into account contextual factors in order to avoid non take-up of solutions and unintended consequences?
- What environmental-, social-, technical-, cultural-, legal-, governance, and/ or participatory-based approaches can build resilience to these risks?
- What can we learn from past efforts (successes & failures) to build resilience and manage systemic risks?
- How can cross-sectoral governance structures (e.g. civil contingency secretariats, social safety nets and insurance) be developed or adapted to mitigate the loss of lives and livelihoods in complex emergencies?
- How can the trade-offs associated with managing multi-hazards and systemic risks be factored into planning processes and engagement within local stakeholders and communities?
- Can approaches, methods, tools, metrics and indicators be developed which allow us to assess the relative risks and co-design proportionate mitigation strategies?
Overview

Part 3: Programme Requirements & Application Process
Sarah Blackburn, NERC Senior GCRF Challenge Manager
Programme Requirements

**Research Excellence**: new approaches not constrained by traditional methodologies or disciplinary silos

- Applicants need to demonstrate an understanding of the context (societal, cultural, political, historical, economic etc.)

**Multi-disciplinary project teams**: range of expertise needed to address the research challenges, e.g. environmental, social, economic, engineering, mathematical sciences, health, and arts and humanities

- Support adaptability and resilience by focusing on key competencies/expertise required rather than specific work streams and staff

**Equitable Partnerships and Building Capacity**: strong and enduring partnerships between UK and developing-country researchers to enhance the research & innovation capacity of both

- Partnerships should aim to have clearly articulated equitable distribution of resources, responsibilities, efforts and benefits
- In-country partners need to be appropriate, involved in the scoping and delivery of the research, and add value
- Project should identify research capacity-building activities as part of, and not separate to, the stated research approach
Programme Requirements

Projects need to be underpinned by strong research ethic based on mutual respect and understanding for different cultural, ethnic, social and economic beliefs and practices

**Impact:** Problem and Solution Focused—substantial impact on improved social welfare, economic development, and environmental sustainability

Be clear and realistic about the potential impact

- Directly associated with this grant
- What are the benefits beyond the lifetime of the grant?

- Work with populations at risk, local and national government, civil society and corporate private sector
- Align projects with ongoing policy development and/or business and civil society planning processes

Users should be engaged both during the design phase and throughout lifespan of project
Official Development Assistance (ODA) compliance—must meet OECD guidelines

Specify in your project title and summary how your project is ODA compliant

- identifying the development challenge(s) being addressed, the aims of the project and the beneficiary countries

Proposals may relate to any countries on the DAC list (countries expected to graduate cannot be the primary focus)

Outline Bid
- demonstrate primary purpose of project is to promote the economic development and welfare of developing country /countries (ODA compliance statement not required)

Full Bid
- full guidance on submitting ODA compliance statement will be provided at full stage
Application Process

Two stages: Outline Bid and invited Full Proposal

1. **Outline Bid**—Submission of one Outline Bid for each project (submitted by lead PI)
   - Assessed by Assessment Panel
     - Application successful/unsuccesful (brief feedback provided)
     - Successful applications invited to submit a Full Bid (ca. 6 Proposals)

2. **Full Bid**—Submission of one Full Proposal for each invited project
   - Envisage funding 2 projects
   - Maximum project size: £3.5M (cost to UKRI)

The submission of an Outline Bid is a requirement for this programme and only applicants successful at the Outline Bid stage will be eligible to submit Full Proposals
Eligible Research Organisations

Principal Investigator (PI) based in a UK Research Organisation eligible for UKRI funding

Co-Investigators (Co-Is) and researchers can be based in the UK or overseas, those in based overseas receive funding through the lead UK research organisation

Co-Is from DAC list countries:
- strongly encouraged
- can receive funding for direct costs and some indirect costs

Co-Is from high-income countries outside of the UK:
- can claim 100% of their direct costs but not indirect costs
- high-income country applicants advised to keep their costs claimed to a minimum

Applicants may submit a maximum of two proposals to the call as an investigator, only one of these may be as the lead Principal Investigator
Eligible Research Organisations

**Project partners** organisations not meeting criteria to be a Research Organisation and Co-I

1. **Third sector organisations** (NGOs, charities, other non-profit civil society organisations):
   - eligible to receive a contribution towards costs from award
2. **Government departments and business** (Overseas and UK):
   - not eligible to directly receive funds from award

**Sub-contractors**

Sub-contracts are eligible costs on proposals
- should only be used for the procurement of goods and services

**Outline Bid**
- state partner organisations engaged
- status of partner discussions (including likely nature of contribution to the project)
- Letters of Support from Project Partners not required for Outline Bid
Outline Bid Stage: Required Documents

- Je-S pro-forma and a case for support attachment
- The Case for Support is comprised of two parts (up to 4 sides of A4 in total):
  1) Previous Track Record—including the composition and experience of the research team
  2) Description of Proposed Research
    - Outline of research proposed and how it fits scope and addresses scientific and non-scientific objectives of call, including ODA compliance
    - Summary of potential impact including how the research will contribute to better preparedness and improved resilience to multi-hazards and systemic risk in developing country contexts

For the outline stage only, any overseas co-applicants who do not have Je-S accounts should be listed (including their organisation) in part 1 of the case for support (Je-S accounts will be required at the full bid stage)
Assessment Process

• All Outline Bids received will be assessed by an Assessment Panel to shortlist those that will be invited to submit Full Bids. Any sift of proposals will be made on the basis of:
  
  ➢ Potential scientific excellence of the proposed research
  
  ➢ Likely fit of applications to the scientific objectives and non-scientific objectives of the call, including ODA compliance

• Applicants will be given brief feedback from the Panel summarising the reasons why the application was successful/unsuccessful

• It is envisaged that approximately 6 Full Proposals will be invited. Applicants will be informed of the outcome of their Outline bids following the Assessment Panel in June 2019
# Call Timeline

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Outline Bid AO Published</td>
<td>8 March 2019</td>
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<tr>
<td>Outline Bid Call Closes</td>
<td>15 May 2019</td>
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<tr>
<td>Outline Bid Sift Panel</td>
<td>w/c 17 June 2019</td>
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<tr>
<td>Full Bids Invited</td>
<td>w/c 24 June 2019</td>
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<tr>
<td>Full Bid Call Closes</td>
<td>w/c 9 September 2019</td>
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<tr>
<td>Assessment Panel</td>
<td>December 2019</td>
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<tr>
<td>Grants Start Date</td>
<td>1 April 2020</td>
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<tr>
<td>Kick-off Workshop</td>
<td>TBC 2020</td>
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<tr>
<td>Grants End Date</td>
<td>April 2023</td>
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Contacts

Website:
https://nerc.ukri.org/research/partnerships/international/gcrf/news/ao-ukri-risks/

All queries relating to the call should be directed to:
GCRFResilience@nerc.ukri.org

If you experience difficulties using Je-S or have questions regarding its use, please contact the Je-S helpdesk:
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Any Questions?