Global Challenges Research Fund: Building Resilience

Announcement of Opportunity

Closing Date: 16:00 on 6th September 2016

Summary

As part of the Global Challenges Research Fund (GCRF), NERC, AHRC & ESRC are taking a leadership role in generating inter-disciplinary research and communities which can address the issue of '**Building Resilience'** in developing countries**.** Building resilience is about enabling people, communities and systems to anticipate and be better prepared to withstand catastrophic events. It rests on the ability of decision makers to take holistic, integrated or systems approaches which consider environmental knowledge, socio-economics, infrastructure, governance, history and culture of a community or region that is affected. It will require new inter-disciplinary research which is designed with beneficiaries and users to develop solutions that help all parts of society.

This call is open to proposals addressing resilience to – natural and man-made – environmental hazards in developing countries. **The focus is on how to build resilience in relation to both sudden and slow-onset environmental hazards** (e.g. land-degradation, deforestation, drought, hurricanes, climate change) **taking into account the intersections and relationships with other contexts such as conflict and fragility, poverty and famine, urbanisation, economics and health/disease risks.**

The call will fund foundation-building activities that: stimulate the creation of inter-disciplinary international research communities; enable collaborations with beneficiaries and user organisations at the forefront of the development agenda; define research questions and test new inter-disciplinary ideas and approaches. **All proposals are expected to take an inter-disciplinary approach, bringing together environmental science with social science and arts and humanities.**

Up to £3.3M of funding is available. Awards are expected to vary in scale according to the nature of the activities proposed and not to exceed £200k (at 100% fEC). The funders anticipate funding 15-20 projects ranging from 3-9 months. A small number of projects of 12 months duration can be funded. Successful projects will be expected to start no later than 1st November 2016.

Closing date for applications is 16:00 on 6th September 2016. Late applications will not be accepted.

A workshop on 19th July 2016 will facilitate the development of collaborations between academics from different disciplines and between academics, beneficiaries and users. To apply to attend please complete the application form on the NERC website, by 27th June.
If you have any questions, please contact GCRFResilience@nerc.ac.uk

1. Global Challenges Research Fund

The Global Challenges Research Fund (GCRF) is a £1.5 billion fund announced by the UK Government to support cutting-edge research that addresses the challenges faced by developing countries through:

- challenge-led disciplinary and interdisciplinary research
- strengthening capacity for research and innovation within both the UK and developing countries
- providing an agile response to emergencies where there is an urgent research need.

The GCRF presents an opportunity for the UK research base to make leading contributions to key international initiatives to improve the economic potential and quality of life of those in the developing world, including UN Sustainable Development Goals, UN Sendai Framework for Disaster Risk Reduction (DRR).

The clarity of the statements, goals and priorities outlined in these initiatives, belies the fact that many problems facing developing world countries are intractable because they are complex, multi-faceted, and require cooperation across organisations at local, national and international scales. In order to be able to make a substantial contribution to these, the UK research base must take a similarly holistic approach, crossing traditional disciplinary boundaries and enabling new insights and approaches. Through this call the UK Research Councils, led by NERC, AHRC and ESRC are taking a leadership role in developing inter-disciplinary research and communities which can address developing world issues.

This call complements a number of other cross-Council GCRF calls including the BBSRC-led GCRF Foundation Awards for Global Agricultural and Food Systems Research and MRC-led Foundation Awards (Infections Foundation Awards: Global infections; NCDs Foundation Awards: Global Health Science Global Health Science – Beyond Infections), the AHRC-led PACCS call on Conflict and International Development; ESRC-led call on Forced Displacement.

This call seeks to make a distinctive contribution by providing opportunities to develop more integrated approaches which take a holistic approach and by generating new inter-disciplinary capabilities and strong international collaborations connecting research, policy and practice, which are able to respond to future GCRF calls. However, it should be noted that eligibility for any future GCRF calls will not be dependent on success in this foundation round and that the scope of any future call may differ from the scope of this call.

2. Building Resilience: Scope

Background

The World Bank estimates that for some developing countries the cost of recovery from hazardous events each year is greater than their GDP – years of development investment and progress can be wiped out. "*Disasters can hit developing countries with an economic force that can* *roll back development gains and exacerbate inequality*[1]." A combination of conflict, climate change, environmental degradation, population growth and urbanization means that an increasing number of people are vulnerable to a wide range of hazards, and it is developing countries that are generally most at risk yet least able to cope.

Recent studies have shown that it makes economic sense to invest in preparedness, rather than deal with the consequences of these hazards. As a result, there is greater emphasis on prevention and enhancing preparedness of vulnerable communities so that they are more resilient.

The concept of resilience is widely applied to a number of areas but for the purposes of this call, **the definition in the Sendai Framework for Disaster Risk Reduction will be used: "The ability of a system, community or society exposed to hazards to resist, absorb, accommodate and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions**." Building resilience is about making people, communities and systems anticipate and be better prepared to withstand catastrophic events – both natural and man-made – as well as more able to absorb and bounce back more quickly and emerge stronger from these shocks and stresses. Resilience is central to addressing the goals of the Sendai Framework, COP 21 Paris Agreement and the UN Sustainable Development Goals, as well as to designing more effective development interventions today.

Often it is not the magnitude of a single event which determines whether a 'disaster' is considered to have occurred but a combination of circumstances, including conflict, poverty and environmental degradation, the protracted legacies of past events or a cascade of events caused by interdependencies in a system, which altered the capacity of a community to respond. Therefore it is important to understand the local circumstances, resulting from different geographies and histories, and take into account the local impacts, knowledge and behaviour to understand how resilience can be built, as well as the potential to scale from local to global.

Therefore strengthening resilience includes coping with both sudden and incremental changes to a range of natural and man-made hazards: conflict, health, and economic, as well as environmental, at multiple scales. Resilience rests on the ability to take holistic, integrated or systems approaches which encompass not just environmental knowledge but that associated with the socio-economics, infrastructure, governance, history and culture of a community that is affected.

The NERC and ESRC have already demonstrated the benefits of taking an inter-disciplinary approach in this space through the Increasing Resilience to Natural Hazards (IRNH) programme. A strong interdisciplinary approach to research throughout these programmes aims to improve forecasting and uptake of scientific advice and increase understanding of vulnerability and risk. They have also jointly funded with DFID the Science for Humanitarian Emergencies & Resilience (SHEAR) initiative, targeting lower to middle income countries across sub-Saharan Africa and south Asia.

Building pathways to resilience must be flexible and take into account the impacts of multiple and complex challenges, and also the fact that in changing environments the past may not always be a good indicator of the future. There should be an ambition to achieve not only short term recovery but longer term gain; 'build back better/bounce forward' – looking to increase resilience to future shock.

---

[1] http://www.worldbank.org/en/news/feature/2015/02/04/what-does-it-take-to-bring-resilience-to-scale

In order to strengthen decision making at community, local, national and international levels, it is necessary to provide a robust and accessible evidence base. In recognition of this, the 2012 review of humanitarian disasters (*Use of Science in Humanitarian Emergencies and Disasters*), and UN Sendai Framework for Disaster Risk Reduction call for better mobilisation of science and technology to support these resilience efforts. Resilience is one of five key areas for action highlighted in the *Restoring Humanity – Global Voices Calling for Action* report - leading up to the first World Humanitarian Summit in May 2016; it also raises issues that cut across traditional research boundaries and highlights the importance of affected communities being 'recognised as the primary agents for their preparedness, response and recovery'. There is a clear mandate to the research, technology and innovation community to work together with governments, practitioners and decision-makers at all levels to develop and share the knowledge and solutions needed to improve the resilience of communities, save lives and reduce losses.

Scope of call

This call is open to proposals addressing resilience to – natural and man-made – environmental hazards in a range of developing world contexts. The focus is on how to build resilience in relation to both sudden and slow-onset environmental hazards (e.g. land-degradation, deforestation, drought, hurricanes, climate change) **taking into account the intersections and relationships with other contexts such as conflict and fragility, poverty and famine, urbanisation, economics and health/disease risks.**

This call focuses on strengthening resilience to environmental hazards in Low & Middle Income Countries (LMICs) – specifically those on the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) list of ODA Recipients which is available here. Because this call is funded through the Global Challenges Research Fund, applicants must show that the project focuses on outcomes that will address poverty and development issues and directly benefit countries on the OECD DAC list.

The call recognises that building resilience to environmental hazards is a complex issue requiring a holistic approach encompassing not just knowledge about the environment but the socio-economics, infrastructure, governance, and culture of a community that is affected. It will require new inter-disciplinary research and recognition of the importance of engaging with beneficiaries and user organisations to understand what knowledge is required and how it can be implemented to design solutions that help all parts of society.

The funders are inviting proposals for foundation building activities. These will stimulate the creation of new inter-disciplinary research communities which are capable of adopting a holistic approach and to explore new and develop existing collaborations with beneficiaries and user organisations involved in developing resilience. Proposals should focus on early-stage activities, which many include:

- developing partnerships between academics of different disciplines and with academics in LMICs
- exploring and developing collaborations between academics and beneficiaries and users of research (particularly in LMICs) to understand user needs and define pathways to impact

- defining research and innovation (i.e. knowledge translation) questions which are orientated towards real world problems and challenges
- testing new innovative ideas and inter-disciplinary approaches for addressing developing world issues.

This call should be regarded as a 'foundation' phase aimed at supporting activities and creating communities with the potential to develop further, for example through bidding into future GCRF calls for longer-term, larger scale projects.

It is expected that a wide range of projects will be funded, some of which will be exploratory in nature and enable the development of new research opportunities and others which are aimed at widening or deepening existing collaborations. It is also recognised that there is a considerable body of existing data, knowledge and technologies which can be harnessed to developing world issues so projects with components of knowledge translation are also in scope.

All proposals are expected to:

- **Take an inter-disciplinary approach** bringing together environmental science with both social science and arts & humanities. It is a minimum requirement that all proposals are expected to include a named investigator with research expertise within the remit of each of the three funding Research Councils (i.e. environmental science, social science and arts & humanities.

- **Be based on a programme of work that lies pre-dominantly within the remits of the Councils funding the call (NERC, ESRC, AHRC) but including other disciplines** (e.g. engineering, medical), **where appropriate, to achieve a holistic approach.** NERC is leading and managing the call on behalf of the other funders but proposals should address the interdisciplinary remit of the call more broadly rather than the remit of any individual Council narrowly. There is no expectation of the relative 'split' across the three Council's remits – it should be appropriate to the aims of the project.

- **Address the themes of the call** (see list below). The funders recognise that it will not be possible to address all of these in a foundation project and expect each successful project to build capacity and understanding on a subset of these. Therefore, it is expected that any proposal will cut across at least two of these areas and not fall within the bounds of any one.

- **Engage beneficiaries and users** (e.g. policy-makers, actors within humanitarian and development organisations, local communities) so that new research and knowledge translation questions are orientated towards real world problems and challenges, and pathways to impact defined to enable significant impact. (It is recognised that much impact may not be realised as a result of the pilot activities themselves.) Applicants are expected to demonstrate suitable connections with beneficiaries and users to ensure that their findings feed into current policy and practice. However recognising that an aim of a project might be to develop or widen collaborations with users and beneficiaries, if no connections currently exist, applicants should demonstrate how these are going to be established.

Although not a requirement of the call, activities which have clear benefits to multiple organisations and/or which include the development of approaches or learning that can be 'scaled up' or applied to other regions are strongly encouraged.

Themes of call

It is expected that any proposal will cut across at least two of these areas and not fall within the bounds of any one.

Underlying drivers of disaster risk: More research is needed to characterise the contributing factors and processes leading to disaster risk, including changing environmental drivers (e.g. tectonics, climate change and variability), as well as the consequences of poverty and inequality, unplanned and rapid urbanisation, poor land management and compounding factors such as demographic change, weak institutional arrangements, disempowered local actors, lack of regulation (or its enforcement), cultural beliefs and experiences, lack of (or contextually inappropriate) tools, barriers to uptake of new technologies and the intersections with issues such as cultural beliefs, social practices and historic experiences. Often it is not the magnitude of a single event which determines whether a 'disaster' will occur but a combination of circumstances. Projects that explore how these different drivers combine to determine risk, or that explore how combinations of hazards (e.g. conflict and drought) can cause a crisis are strongly encouraged.

Understanding of and ability to forecast environmental hazards: More research is needed to increase our understanding of the myriad of drivers of environmental hazards, how these drivers interact, and how these might lead to changes in the frequency and severity of events in future. Research to develop multi-hazard risk assessments, including hazards which 'cascade' as a consequence of the initial 'hazard', and to determine how these risks can be minimised, is also needed. New techniques and methodologies are required to understand, measure and forecast hazard events including those that utilise systems approaches and novel technologies (e.g. networks of sensors, modelling capabilities). Knowledge about environmental hazards needs to be combined with information about the exposure and vulnerability of communities to identify the most 'at risk' zones so the research can contribute to the development of the early warning systems and adaptation and mitigation strategies.

Communication: In some cases our understanding of hazards and risks and in some cases our ability to forecast events is good, however often this information is not used by vulnerable communities. This might be due to an in accessible information; incomplete/ineffective (or non-existent) communication chain; circulation of information that is not relevant to decision-makers; lack of trust between those involved; language gap or culturally inappropriate information. Research is needed into what information decision-makers require – what is relevant information? How can scientific and indigenous knowledge be combined to produce relevant information? Research is needed to understand what information and approaches to communication are appropriate for different actors and cultures. What role can stories, narratives or performance have in communicating risk and enabling actions to build resilience?

Governance: What organisations/actors have responsibility for risk assessment, planning, action and response? Who owns a risk; who has responsibility to act upon it? How can power be appropriately distributed between these? How can collaborative working be better supported, including across international boundaries? How might organisations with different missions and roles (e.g. humanitarian relief, development assistance, environmental protection, etc) work more effectively together to build resilience? How might local communities and actors be empowered to make choices about how to build resilience and what are the constraints on this? Who is excluded or marginalised in the process of building resilience and how might more inclusive participatory processes be developed? How do these challenges differ in different socio-economic and cultural situations? How does building resilience intersect with issues of gender, voice, power and inequality?

Incentivising action and measuring resilience: Evidence on the economic, welfare and environmental value generated is required to support actions to build resilience. How can the full range of costs/benefits, choices and trade-offs be adequately captured, particularly when benefits are many years away? What actions or combination of actions can be used to cost-effectively build resilience? How should short term need be balanced against long term resilience? How can preparedness activities be incentivised from international to community level – including enabling humanitarian organisations to move between the short term (emergency relief) and long term development and preparedness? What indicators can we use to measure resilience? How can indicators reflect the multi-dimensional (environmental, social, economic, cultural) and dynamic nature of resilience?

Cultural implications in building resilience: Perception of risk and ability to recover is heavily influenced by culture and historical experience (legacies and memories from past disasters) and coping strategies will be learned, understood and applied differently in different historical and cultural contexts. What approaches to enabling behaviour change are appropriate where there are diverse faiths, beliefs and understandings around human-nature relationships? What are the legal and ethical implications of taking action - or not taking action – to reduce risks or providing information about future risks? How to creatively engage with diverse groups such as the elderly, children, disabled, women & girls, migrant communities, and particularly those that are most vulnerable, and build new resilience capabilities? Are there better ways for addressing issues such as social and inter-generational justice, rights, identities, heritage, loss and change within a resilience framework? What can we learn from past interventions in framing new interventions in the future?

Resilient systems (of system): The interdependencies between the systems we rely on (e.g. healthcare, transport, water) are not well understood and can lead to unexpected consequences when they fail. There is potential to enhance the resilience of new and existing infrastructure systems, including water and sewerage, energy, health, education, housing/shelter, transportation and telecommunications infrastructure to ensure that they remain safe, effective and operational during and after disasters in order to provide live-saving and essential services.

Build back better/greener: Recovery from disasters creates opportunities to build back better / greener with resilience or for transformative change to new futures but this is often not given sufficient attention in the rush to re-build. There may be an opportunity for developing countries to 'leapfrog' technologies and learn from what has worked or failed in the past and/or in other contexts. How can recovery become an opportunity for transformation which builds in greater resilience?

Improving effectiveness of research engagement and uptake: Critical to achieving impact in developing world will be the development of innovative, responsive approaches to strengthen links between the research community and governments, local actors and practitioners at all levels, to enable contextually relevant evidence informed decision-making. What structures and processes successfully enable collaboration and dialogue between researchers and decision-makers at all levels from international to local, so that research can both benefit from local knowledge and experience, and better inform decision-making?

3. Funding: Purpose, project value & duration

Purpose

The aim of the call is to provide an opportunity to conduct foundation building activities that: stimulate the creation of inter-disciplinary research communities, scope resilience challenges where an interdisciplinary approach is required, define research and innovation gaps and enable broader, deeper and more effective collaborations with beneficiaries and users (e.g. policy-makers, practitioners from humanitarian and development organisations, local communities) at the forefront of building resilience.

This call should be regarded as a foundation phase aimed at developing inter-disciplinary research and ideas, defining pathways to impact, as well as creating communities with the potential to bid into future funding calls, such as the GCRF, for longer-term, larger scale projects.

Foundation grants are focused on early-stage activities which may include but **are not** limited to the following:

- Scoping the resilience challenge in OECD DAC list countries and identifying opportunities where an inter-disciplinary approach is required
- Defining interdisciplinary research and/or knowledge translation questions which are orientated towards real world problems and challenges
- Enhancing capability and/or capacity in interdisciplinary research and developing new collaborations or partnerships with academics in the UK and in developing countries
- Development or modification of relevant (particularly interdisciplinary) research tools or methods and trialing new approaches
- Pilot projects to explore new research studies for investigation of new approaches and/or generation of preliminary data
- Pilot projects to explore opportunities for 'knowledge translation' and trialing whether/how the outcomes of existing research can be translated into relevant information for decision-making in those countries
- Bringing together existing data and knowledge sources (e.g. particularly important to combine information about the hazard with socio-economic datasets or local data, and/or to engage with indigenous knowledge about the vulnerability and exposure of local communities).
- Exploring and developing collaborations between academics and beneficiaries and users (e.g. policy-makers, local communities, actors in humanitarian and development organisations, knowledge intermediaries) to understand user needs and create effective pathways to impact for the application of research
- Widening and strengthening the research – user interface through placements and/or two-way exchange of people between academia and user organisations, thereby building mutual understanding of how research can be put into practice
- Syntheses and mapping of existing research in a particular area to identify research and knowledge translation gaps. (These should not be confined to academic literature but

pull from grey literature and where appropriate might also draw on sources in different languages and/or on the past.)

- Providing opportunities for communities within the UK research base with relevant expertise but which are not currently working on developing world issues to develop collaborations with expertise in LMICs and development contexts

The outcomes of such activities are likely to be varied but may include:

- Established communities and partnerships across academic disciplines, and between academics in developed and LMICs, which are capable of applying inter-disciplinary approaches to addressing resilience to environmental hazards
- New partnerships and collaborations between academics and beneficiaries and users who are at the forefront of building resilience and can help understand how the UK research base could address developing world issues
- Tried and tested inter-disciplinary methods and/or innovative ideas that might be fully researched as part of future research consortia
- The identification of communities within the UK research base with relevant expertise which are not currently working on developing world issues.

Project value and duration

Up to £3.3 million is available for this call. The partners envisage funding a cohort of projects within this budget ranging from 6 to 9 months although projects up to 12 months will be considered. However please note that a limited number of projects of 12 months duration can be funded. Awards are expected to vary in scale according to the nature of the activities proposed and not to exceed £200k (at 100% fEC). The funds requested should be proportionate to the activities being proposed and be fully justified in the Justification of Resources. Around 15- 20 proposals of varying scales are expected to be funded.

Requested costs for UK activities will be funded at 80% of full economic costs (fEC) and non-UK costs will be funded at 100% of eligible costs. More information on eligible costs are in the Project Finances section below.

Awards are expected to start as soon as possible after 1 October 2016, and no later than 1 November 2016.

Workshop

A large community-building event is planned to bring together disciplines from across the research councils along with beneficiaries and user working within developing countries. The aim of the event is to: introduce the GCRF, provide more information about the scope of this call, enable collaboration between academics from different disciplines, initiate collaborations between academics and beneficiaries and users and to discuss and develop project ideas.

The workshop will be an all-day event on 19th July, in London.

More information about the workshop including how to apply to attend, is available on the call web site. The deadline for applications to attend the workshop is Monday 27th June 2016. It is anticipated that we will not be able to accommodate all those interested in attending the event, but we will endeavour to have representation from a breadth of disciplines and organisations.

Successful applicants to workshop will be notified on 1st July 2016.

Attendance at the workshop will not be a pre-requisite for applying for funding.

4. Working with beneficiaries and users

One challenge of the GCRF is to understand where the UK research base, working with others where appropriate, can make a difference to those in the developing world. To do this, academics must engage with beneficiaries and users (e.g. policy-makers, practitioners from humanitarian and development organisations, local communities, intermediaries) so that new research and knowledge translation questions address user needs and have the potential for impact in developing countries.

Impacts from research are always uncertain, often unexpected and cannot be guaranteed – this includes impacts in developing countries. The likelihood of beneficial impact is increased:

- If the research is orientated towards real world problems and challenges
- If beneficiaries and users that are close to the problem, or have a mandate to implement any solutions, are actively involved in the research. Particularly through the whole life cycle from initiation, design, progression, dissemination and application of the research
- If the academics and research team can demonstrate experience or understanding of successful impacts within the specific context; relevant expertise might be located within both UK and overseas partners
- If the pathway to impact is realistic and appropriate to the particular developing country context/s.

It is recognised that impacts may not be realised as a result of the foundation activities themselves, indeed the activities may aim to explore and establish new partnerships between academics and beneficiaries/users and develop new pathways to impact. Although foundation projects may be exploratory, proposals should be able to articulate the real-world development challenge/s being addressed, who the beneficiaries and users might be, how working with the UK research base will help make a difference to lives in developing countries and how the activities will contribute to the development of a pathway to impact.

Applicants are expected to demonstrate suitable connections with beneficiaries and users to ensure that their findings feed into current policy and practice. Ideally, projects should be designed in collaboration with beneficiaries or users. However recognising that an aim of a project might be to develop or widen collaborations with users and beneficiaries, if no connections currently exist, applicants should demonstrate how these are going to be established.

5. Ethics

The research councils expect all applications for funding to demonstrate an awareness of the social and ethical implications of the proposed research. As well as complying with your research organisation's ethics policy, the application should take into account public attitudes towards ethical issues, including those in any Low and Middle Income Countries (LMICs) involved in the research or pathways to impact activities. Such issues should be interpreted broadly and may encompass - amongst other things - relevant codes of practice, the involvement of human participants, international engagement, risk or impact assessments for participants, country-specific legal or regulatory requirements, cultural and language differences, and the use of sensitive economic, social or personal data.

You are reminded of the importance of providing full and careful consideration of all the ethical implications of your research, particularly as regards any involvement with community groups and local government bodies In LMICs (especially where vulnerable people are involved). You should also ensure that the project teams have the capacity, appropriate knowledge and expertise to deal with potential issues arising from ethical concerns, and put in place a robust monitoring process to ensure any such issues are being properly dealt with.

All ethical implications - and how they are to be addressed - must be provided under the Ethical Implications Statement heading in your 'Case for Support' document. More information on what should be included here is in the 'Application process' section below.

Guidance on the issues applicants need to consider are:

ESRC Framework for Research Ethics
RCUK Concordat to Support Research Integrity

6. Eligibility

Eligible organisations

Applicants may submit their proposal as a single Je-S application only. Joint applications are not allowed for this call.

This call will award funds to the lead institution named on each application, which will then be responsible for disbursing funds to other institutions/organisations named on that application.

All projects are required to have a Principal Investigator based in a UK Research Organisation eligible for NERC funding.

The lead Research Organisation (RO) must be eligible to hold NERC, ESRC or AHRC grants; i.e. be an approved UK Higher Education Institution (HEI), Research Council Institute (RCI) or Independent Research Organisation (IRO) eligible for NERC, ESRC or AHRC managed mode funding. Full details of approved RCIs and IROs can be found on the RCUK website.

Only Co-Investigators and Researchers based in Low and Middle Income Countries (LMICs) on the OECD DAC List of Recipients, and international research organisations which have appropriate expertise and significant presence in the LMICs in which the project is based, are eligible to receive funding through this call. These non-UK organisations will receive funding through the lead research organisation; they cannot act as the lead organisation. There must be an individual named as a Co-Investigator in these organisations.

It is important to highlight that the UK Research Organisation awarded the grant is responsible for the conduct and administration of the grant. It is accountable for the effective use of public funds, and must therefore ensure that all grant monies are subject to proper financial management processes. It is the Research Organisation's responsibility to ensure that expenditure on collaborations in the UK and abroad is subject to robust controls to ensure value for money and propriety and that all costs should be fully vouched and maintained for possible inspection and checks by, or on behalf of, the funding organisations (NERC, ESRC and AHRC).

If any of the Research Organisations that receive funding wishes to sub-contract research to a non-UK research organisation or include a Co-Investigator at a non-UK research organisation then the UK Research Organisation must undertake due diligence checks to ensure that the funding will be appropriately used. The Research Organisation must confirm to NERC that it has undertaken suitable due diligence checks within 3 months of the start of the grant.

Project Partners (if providing significant cash or in kind contributions to the project) or sub-contractors (if purely providing a service, with no intellectual property, author or other rights) may be from any country.

Non-UK Research Organisations

Only academic researchers (at PhD or equivalent status) from established overseas Research Organisations from Low and Middle Income Countries (LMICs) on the OECD DAC List of ODA Recipients and international research organisations which have appropriate expertise and significant presence in the LMICs in which the project is based, are eligible for funding through this call.

Please refer to the 'Application Process' section and for more information on what is eligible for funding and how to apply through Je-S.

- Projects with non-UK Co-investigators and researchers will receive funding through the lead research organisation
- The costs associated with the non-UK component of the project must not exceed 30 per cent of the overall cost of the grant (at 100% fEC).
- There must be a named Co-Investigator at any non-UK organisation wishing to receive funding. Projects requesting researchers and Researcher Co-Is at institutes without a named Principal Investigator or Co-I will be rejected and not considered for funding
- The non-UK Co-I needs to have suitable academic experience and be based at a Research Organisation of significant research capacity (i.e. comparable to a UK Co-I's experience and type of organization that can receive Research Council Funding)
- Co-Is and Researcher Co-Is have to be named on the application and have an active Je-S account. Researchers do not have to be named on the application and are not required to

have an active Je-S. More information and instructions on how to register with Je-S is available in the Je-S Handbook.
- Applicants who include non-UK Co-Is must fully justify the associated costs within the Justification of Resources section of the proposal. The call with fund 100% of Directly Incurred costs (e.g. staff time, travel, consumables). In addition, Indirect costs (overheads) will be paid at 20% of all Directly Incurred costs.

Research Roles and Eligibility

With the exception of project partners and 'staff' such as researchers and technicians, individuals may be named on a maximum of two Grants submitted, and may be named as a lead Principal Investigator (PI) on only one. The total time commitment across the applications with which they are involved should not exceed 100%. If individuals are named on more than two submitted proposals then additional proposals will be rejected, which may be to the detriment of both the individual and projects concerned. Full information on individual eligibility and role descriptions can be found under Section C of the NERC Grants Handbook. This applies for both UK and non-UK applicants.

Eligible costs

Requested costs for UK activities will be funded at 80% of full economic costs (fEC) and non-UK costs will be funded at 100% of eligible costs.

Funding is not available for PhD or Masters Studentships. Requests for capital will not be funded as part of this call. Equipment under £10k is subject to normal grants terms and conditions. More detailed information on eligible costs is in the Project Finances section below.

All costs should be listed as described in Section E of the NERC Grants Handbook apart from the exceptions as laid out in this document.

ODA Requirements

This call is funded through the Global Challenges Research Fund. GCRF forms part of the UK's Official Development Assistance (ODA) commitment, which is monitored by the Organisation for Economic Cooperation and Development (OECD). ODA-funded activity focuses on outcomes that promote the long-term sustainable growth of countries on the OECD Development Assistance Committee (DAC) list, which is available here. Funding within this call will therefore be awarded in a manner that fits with Official ODA guidelines (see here).

When applying to this call it is important applicants take time to consider whether or not their proposal is ODA compliant. It will be important to ensure that it is clear in the proposal how it is ODA eligible as defined by "administered with the promotion of the economic development and welfare of developing countries as its main objective". Further general advice on ODA and links to useful sources are provided in Annex A.

All proposals to this call will be required to include a mandatory attachment setting out how they fulfil the criteria for ODA compliance. Further guidance on how to complete this attachment is provided in the Application Process section of this document.

If you have any questions, please contact GCRFResilience@nerc.ac.uk

7. Assessment

Assessment process

Proposals will be assessed at a panel meeting involving academics from a range of disciplines and with inter-disciplinary expertise as well beneficiaries and users, according to the assessment criteria. Applicants will be given brief feedback summarising the reasons why the application was successful/unsuccessful. No further feedback will be available.

Proposals will be checked by the office and if they do not meet (or if very large numbers of applications are received do not best meet) the requirements of the call or the submission guidelines, they will not be sent for review by the panel.

Assessment Criteria

In order to be considered fundable proposals must meet ODA requirements by clearly demonstrating that the primary purpose is to promote the economic development and welfare of LMICs on the DAC list of ODA recipients as its main objective.

Proposals will be assessed against the following criteria:

1. **Fit to scheme & impact**
    - Does the proposal clearly address at least two of the themes?
    - To what extent does the proposal use (or promote the creation of) novel inter-disciplinary partnerships and inter-disciplinary approaches in addressing the challenge?
    - Does the programme of work incorporate significant elements from the remits of all three funding councils (NERC, AHRC, ESRC)?
    - Does the proposal include named investigators representing each of the remits of the three funding Research Councils (i.e. environmental science, social science and arts / humanities)?
    - Does the proposal enable, where applicable, research partnerships between UK research teams and LMICs?
    - Potential for impact: Although foundation projects may be exploratory, proposals should be able to demonstrate how the activities will contribute to the development of a pathway to impact.
    - Is there evidence that the proposal has been developed in collaboration with, and has support from users and beneficiaries? In the case of projects which aim to develop or widen collaborations with users and beneficiaries, does the proposal demonstrate how these are going to be established and is there a clearly articulated demand for the project?

2. **Research & innovation excellence**:

- Will the proposal develop new or enhanced capacity for novel excellent research and knowledge translation to address the challenges of the developing world? [Note: It is anticipated that significant novelty can be achieved through the combination of disciplines and development of novel interdisciplinary approaches, and this may not always require significant advances to any one discipline.
- Is the project based on internationally recognised and competitive research? Where a project includes significant knowledge translation elements (as opposed to new research) the project should still use high quality research.
- Achievability of the work plan: are the proposed milestones, deliverables, outputs and outcomes achievable within the stated timeframe and resources available?
- Capacity and capability of the team; does the team have the appropriate knowledge and expertise to deliver the approach proposed?

Co-ordinating and Managing the Portfolio: In order to develop a strong and varied portfolio the funders (following recommendations from the panel) may take into consideration how well the projects cover the range of research and innovation areas of interest to the funders (defined in the scope section) before making awards.

8. Application process

It is a requirement of the funding that the projects start as soon as possible, and no later than 1 November 2016.

The deadline for receipt of applications is **16:00 on Tuesday 6th September 2016.** Applications will not submit to NERC after 16.00 on that date.

Applicants must submit their proposal as a single Je-S application only. Joint applications are not allowed for this call.

This call will award funds to the lead UK institution named on each application, which will then be responsible for disbursing funds to other institutions/organisations named on that application.

Submitting in Je-S

If you have forgotten your account log in details or are unsure whether you already have an account, please contact the Je-S helpdesk who will advise you. Email: JeSHelp@rcuk.ac.uk; Phone: +44 (0) 1793 44 4164

In order to prepare a Je-S proposal submission the person preparing the proposal has to create a new proposal. The process for this is as follows:
• On logging into Je-S select the Research Council – NERC
• Select the Document type 'Standard Proposal'
• Select Scheme 'Directed International'
• Select call 'GCRF Resilience Foundation Awards SEPT2016'

All applications must be submitted in English and costed in pounds sterling (£/GBP)

All attachments (including references) must be submitted using single-spaced typescript of minimum font size 11 point Arial font or other sans serif typeface of equivalent size to Arial 11 with margins of at least 2 cm. Arial narrow, Calibri and Times New Roman are not allowable font types. Page limit restrictions apply and should be adhered to. Failure to adhere to these guidelines will result in rejection of your application.

Please note that on submission all non-PDF documents are converted to PDF and the use of non-standard fonts may result in errors or font conversion which could affect the overall length of the document.

Additionally where non-standard fonts are present, and even if the converted PDF document may look unaffected in the Je-S System, when it is imported into the Research Councils Grants System some information may be removed. We therefore recommend that where a document contains any non-standard fonts (scientific notation, diagrams etc), the document should be converted to PDF prior to attaching it to the proposal"

Applicants should ensure that their proposal conforms to all eligibility and submission rules; otherwise their proposal may be rejected. More details on NERC's submission rules can be found in the NERC research grant and fellowships handbook and in the submission rules on the NERC website.

In order to prepare a Je-S proposal submission, the person preparing the proposal has to log onto Je-S and create a new proposal. Note that this person must have previously created an individual Je-S account for themselves. This should be done well in advance of the application deadline as there may be some delay in the approval of an individual Je-S account.

Any individuals that will be named on the application (with the exception of Project Partners and sub-contractors) must have an individual Je-S account for themselves or will need to create an account in order to be added to an application. It is also necessary for an individual's organisation to have been registered before they can register themselves. Guidance on how to register an organisation and how to create an individual Je-S account can be found in the Je-S handbook.

Documents required

The grant application will comprise a Je-S pro-forma and a number of attachments. Details of what is required in each document are given in this section.

The **Je-S pro-forma** has a series of sections that need to be completed:

- Title of the proposal
- Objectives
- Summary
- Academic Beneficiaries
- Impact Summary
- Project Partners (if applicable)

The following attachments:

- Case for Support including an Ethical Implications Statement

- Pathways to Impact
- Justification of Resources
- CVs
- Statement of ODA compliance - uploaded to 'Non UK Components'
- Letters of support from project partners (only if project partners are involved)

The **Case for Support** is comprised of three parts:
I. Previous Track Record – up to **2** sides of A4
II. Description of Proposed Project – up to **4** sides of A4
III. Statement of Ethical Implications – up to **1** side of A4

I. The **Previous Track Record** should be a maximum of **2** sides of A4 and include a brief outline of the applicants and organisations involved in the project, and address the following aspects:
   - Describe the nature of the organisations named (i.e. university, research institute, etc)
   - Importantly, the track record should concentrate on the key named individuals/ researchers, their role in the project and details of relevant experience and how they are best suited to conduct the project proposed. **Evidence of inter-disciplinary working is particularly relevant to this call.** You may also wish to include details of any external funding held for key individuals and their organisations
   - Indicate where your previous work has contributed to progressing the field of research.
   - Indicate what previous experience the individuals/researchers have had of working with users or beneficiaries on developing world issues; what was achieved with what benefits and impact.

II. The **Description of the Proposed Project** should be a maximum of **4** sides of A4. It contains the substance of the application so it is essential that a coherent exposition of the proposed project is presented. It should address the following areas:
   - <u>Briefly</u>, frame the challenge related to building resilience to environmental hazards that this project will address and why an inter-disciplinary approach is required to address this.
   - Describe the project: What is the rationale and overall aim? What activities are proposed, what are objectives of these? What is the methodology and approach? What are the proposed deliverables, outputs and outcomes? A work plan can be included.
   - Explain the inter-disciplinary approach to be taken: what disciplines are involved, how the project will bring together expertise from different disciplines, why is this novel and how this will be managed throughout the project.
   - Explain how the proposed project addresses the scope and themes of the call.
   - Explain how the foundation activities contribute to the development of larger scale activities.

III. The **Statement of Ethical Implications** should be a maximum of **1** side of A4. It should answer the following questions and include information on the ethical implications of the project and how they are to be addressed. <u>All projects</u> must answer the question below.

   Are there ethical implications arising from the proposed research? Yes/no

   If the answer is Yes, provide details of what they are and how they would be addressed

   Does the institution have a policy on good conduct in research? Yes/no

   If the answer is Yes, please indicate where this can be accessed (e.g. website address).

The **Pathways to Impact** should be a maximum of **2** sides of A4. The focus of the call is such that all projects should be built around consideration of developing world challenges and so impact is integral to the rationale for the project and will form an important part of the 'Case for Support'. The separate Pathways to Impact attachment provides an opportunity to explain how these activities contribute to the development of a pathway to impact and to building resilience to environmental hazards in developing. It should:

- Identify beneficiaries and users of the research over different timescales, how they will benefit and how beneficiaries and users will be approached and engaged. This should include reference to the specific objectives and outputs of this project.
- Demonstrate a demand for the proposed research and provide evidence of the existence of, or intent to form, dynamic partnerships with beneficiaries and user organisations and communities. (Although foundation projects may be exploratory, and therefore may not have secured input from beneficiaries and user organisations, there should be a rationale for the partnerships being developed (how will they enable impact?) and a clear plan for their engagement.

NERC have several resources available to support the development of Pathways to Impact including:
• NERC Pathways to Impact Policy and Guidance.
• RCUK Pathways to Impact Guidance.

Justification of Resources requested – up to 2 sides of A4. This should state the full cost of the project and explain why the requested resources are needed, including identifying why the proposal presents value for money. It should include a justification for all Directly Incurred Costs, Investigator effort, use of pool staff resources and any access to shared facilities and equipment being sought. No justification of Directly Allocated Estates and Indirect Costs is required. Please note that budgets may be reduced if considered excessive.

A **Curriculum Vitae (CV)** for all named research staff: PIs, Co-Is, Researcher Co-Is, named Researchers and Visiting Researchers (up to 2 sides of A4 for each CV).

(If relevant) Letters of support from any project partners – up to 2 sides of A4 each. Letters of support from project partners are only required if project partners are listed. Each Project Partner must provide a detailed signed letter of support of up to 2 sides of A4.The letter of support should confirm the organisation's commitment to the proposed project, identify the value, relevance and possible benefits of the proposed work to the partner, the period of support, the full nature of the collaboration and how the partner will be involved in the project and provide added value. Partner contributions, whether in cash or in kind, should be explained in detail in the case for support, including the equivalent value of any in-kind contributions. The letter should be written when the proposal is being prepared and targeted specifically to the project.

Statement of ODA compliance – **1** side of A4 – uploaded as an attachment type of 'Non-UK Components'. All research funded through the GCRF will form part of the UK's Official Development Assistance (ODA) and thus it is a requirement that funding be awarded in a manner that fits with ODA guidelines. Therefore, research proposals submitted to this call should describe how the proposed project meets the Official Development Assistance requirements of this call by answering the following questions:

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

Guidance on ODA compliance is provided in Annex A.

Project Finances

The financial cost of the project should be identified in the following components of the application:

- Je-S pro-forma
- Justification of Resources document.

All applicants are advised to consult their institutional finance officers when completing the financial parts of the application.

All applicants should enter the 100% full economic costs of the proposed research into the budget sections of the Je-S form. All costs should be in pounds sterling (£). Requested costs for UK activities will be funded at 80% of full economic costs (fEC) and non-UK costs will be funded at 100% of eligible costs.

All costs associated with the project must be itemised in the Je-S proforma and justified in the Justification of Resources document.

UK Organisational Budgets:

- UK organisations will receive 80% of the full economic cost of the project, as per standard Research Council funding rules. UK universities are required to calculate the FEC using the "TRAC" (Transparent Approach to Costing) methodology.
- Other eligible UK organisations use an equivalent methodology, which has been validated by the Research Councils.
- Overseas travel and expenses costs incurred by members of UK institutions will be paid at 80% and must be included as costs related to that UK institution.

Non-UK Organisation Budgets:

- Non-UK organisations are expected to be able to comply with full and transparent costing for budget elements.
- The costs associated with the non-UK component of the project must not exceed 30 per cent of the overall cost of the grant (at 100% fEC).
- Non UK organisations will be supported at 100% of the Directly Incurred costs of the research (e.g. staff, travel, consumables).
- In addition, a contribution to Indirect costs (overheads) will be paid at 20% of all Directly Incurred costs. For further guidance on what Indirect costs (overheads) can be used please see Annex B
- Non-UK organisations should identify all costs as an 'Exception' on Je-S, using the exceptions tick boxes, for the full (100%) cost to be paid.

- Non-UK organisations should not enter any costs in the 'Estates' section of Je-S. All overheads should be entered as an 'Other Directly Incurred Cost' of Je-S.
- Costs from UK and Non-UK organisations should be entered as separate items. For example T&S costs for field work should be entered as two separate lines i.e. that related to UK organisations payable at 80% and that related to non-UK organisations payable at 100%, by using the Exception tick box.
- In order to mark the costs payable at 100%, please include the name of the non-UK institution in the cost description as shown in the example below

Example of cost description

Travel and Subsistence

Destination and Purpose		Total £
Outside UK	UK Institution name- travel/trip description	
Outside UK	Overseas Institution name - travel/trip description	
Within UK	UK Institution name - travel/trip description	
Outside UK	Overseas Institution name - travel/trip description	
	Total £	

Other Directly Incurred Costs

Description	Total £
UK Institution name - cost description	
UK Institution name - cost description	
Overseas Institution name - cost description	
Overseas Institution name - cost description	
Total £	

9. Timeline

Date	**Event**
27th June 2016	Applications to attend workshop closes
1st July 2016	Successful applicants to workshop notified
19th July 2016 (London)	Workshop
20th July 2016	Call opens in Je-S
16:00 on Tuesday 6th September 2016	**Call closes**
September 2016	Proposals will be assessed at a panel meeting
7th October 2016	Successful applicants informed
1st November 2016	Projects start by 1st November at the latest.

10 Contacts

NERC are administering this call on behalf of ARHC and ESRC. All queries should be directed to the mailbox: GCRFResilience@nerc.ac.uk Where enquiries relate to specific council remits, it would be useful if applicants could state this in the subject line of emails.

The research council representatives supporting this call are:

NERC

Kay Heuser

01793 442888; kaus@nerc.ac.uk

Ruth Hughes

01793 411537; rugh@nerc.ac.uk

AHRC

Gillian Gray

01793 416068; G.Gray@ahrc.ac.uk

ESRC

Sophie Martin

01793 413024; sophie.martin@esrc.ac.uk

ANNEX A: Guidance on ODA eligibility

This interpretation has been developed from two documents, which should be viewed in parallel: i) DFID, "What is ODA?" document; ii) OECD "Is it ODA?"

General ODA eligibility guidance

When assessing whether an activity is eligible as ODA or not, delivery partners will consider whether projects and programmes satisfy OECD criteria on eligibility by whether or not they:

a. aim to promote the welfare and economic development of a country or countries on the DAC list of ODA recipients;

b. are designed to address a development need; and

c. focus on problems in developing countries.

Spending on research projects which benefit DAC countries in broader ways than just poverty reduction can be eligible according to the criteria above, although poverty reduction is a very good indicator of an activity being ODA eligible.

Research

The above criteria are supplemented in the OECD guidance, which notes the following in relation to the eligibility of research to be classified as ODA.

> "*Only research **directly** and **primarily relevant** to the problems of developing countries may be counted as ODA. This includes research into tropical diseases and developing crops designed for developing country conditions. The costs may still be counted as ODA if the research is carried out in a developed country.*"

BIS and delivery partners will use a literal interpretation of "primarily relevant". Research funded through BIS's research budget remains focussed on funding research excellence, which ensures that value for money is maximised. With ODA-eligible research this will remain the case and so "primarily relevant" will be interpreted as follows:

a. Research should have an intent to investigate a specific problem or seek a specific outcome which will have an impact on a developing country or countries on the DAC list in the immediate or longer-term. Evidence should be available if required to justify that the issue is a developing country problem.

b. Research does not need to be *solely* relevant to developing countries, therefore there may be other beneficiaries[2] to a piece of Government ODA research, although countries on the DAC list should be the ***primary* beneficiary** of this research; i.e. if a problem occurs in both the developed and developing countries, the research should be focused on problems which are more prevalent in developing countries – and that this focus on developing country problems is clear.

c. For example:

[2] However if a project examines both a developed and a developing country (maybe some sort of comparative analysis) where there are benefits for both countries, only the developing country-relevant proportion of the spend would be counted.

i. Research conducted into malaria at a UK institution counts as ODA (Malaria infection is a major contributor to morbidity and mortality in developing countries and the intention of the research is to tackle this disease)
ii. Research conducted at a developing country institution into cancer can count as ODA if this is a particular cancer priority in that developing country and/or it is building technical capacity in the developing country.
iii. Research into diseases of broader relevance e.g. HIV, TB, flu, may be counted if the nature of the specific research question being addressed by the study is relevant to problems specific to that developing country (e.g. where the intention is to research the disease because it is most prevalent in the developing world or where the research is into an intervention tailored to developing countries e.g. DAC countries' difficulties in keeping vaccines cool, where developing thermo-resilient vaccines could be a justifiable use of ODA spend).
iv. Including research and innovation capacity building activities, to e.g. increase the skills and knowledge base and support the development of research infrastructure (within a developing country) both at country-level and for specific sectors important for welfare enhancement and economic growth. It should be aimed at improving developing countries' ability to undertake and disseminate research to promote the welfare and economic development of a DAC country / countries.

Questions you may wish to consider when writing your proposal regarding ODA eligibility include:

- Is the project addressing the economic development and welfare of an ODA eligible country?
- Is there a development need that my project or activity is addressing?
- Are the countries involved on the DAC List of ODA Recipients (the Development Assistant Committee of the OECD) *or* will countries on the DAC list directly benefit from the research?
- Is my activity credible or is there evidence of the need?
- Would this project or activity be applied in an ODA eligible country – when, how and with whom?
- What would the impact of my project or activity be, and who would benefit?
- How does my project or activity contribute to sustainable development?
- What would success for this activity look like?
- How would success or impact be measured?

ANNEX B: Guidelines on Overheads (Indirect Costs) for non-UK or non-Academic Institutions

The rates of Indirect costs (overheads) that can be charged by non-UK institutions based in LMICs participating in this call has been set at 20% of all Direct costs (e.g. staff costs, travel, consumables). The following notes provide guidance on how these funds should be used.

Please not that there is no need for institutions to officially account for expenditure of the overheads, but they must be used to pay for that which they are intended.

Costs that must be covered by overheads

The main costs that must be covered by overheads are those that would be considered as part of the cost of running an effective office or research institution. The following are examples of costs that may not be charged directly to grants and would therefore be expected to be covered by overheads.

- Charges for office or laboratory space.
- Electricity, heating, lighting.
- Telephone and basic communication costs (unless there is need for significant project-based activities such as phone interviews).
- Routine photocopying and printing (Large print runs such as publications or workshop papers may be charged to the grant).
- Standard Office computing, including desktop and laptop computers and associated software. Individual items of computing equipment may not be charged to a grant
- (High performance computing facilities which are linked to a specific research task may in some circumstances be charged to the grant – for further clarification please check with NERC).
- Office support staff (e.g. finance staff, basic secretarial support, computing support staff).
- Continuing Professional Development for staff.

Additional costs that may be covered by overheads

Institutions may use any additional overhead funds that remain unallocated from the core costs above in any way that they wish, but we encourage applicants to use these funds to add value to, and ultimately benefit the operation of the project.

Use of overheads for additional costs could include:

- Strategic investments in infrastructure, equipment or people.
- Personal and Professional Development of staff.
- Employing additional staff to support projects (this does not need to be restricted to 'Building resilience' projects). Staff employed on overheads are not considered to be 'Building resilience' project staff.

If you are in any doubt about whether a specific cost should, or should not, be covered within overheads, please contact GCRFResilience@nerc.ac.uk.