















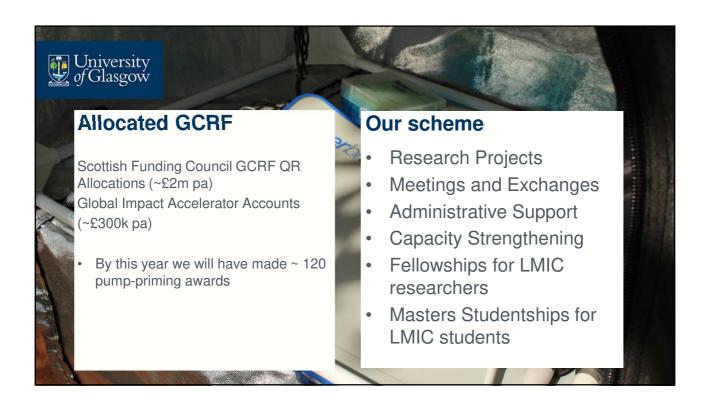
## Glasgow 2020: A Global Vision

Vision: A world-class, world-changing university

Mission: To bring inspiring people together to create a world-class environment for learning and research, empowering staff and student to discover and share knowledge that can change the world







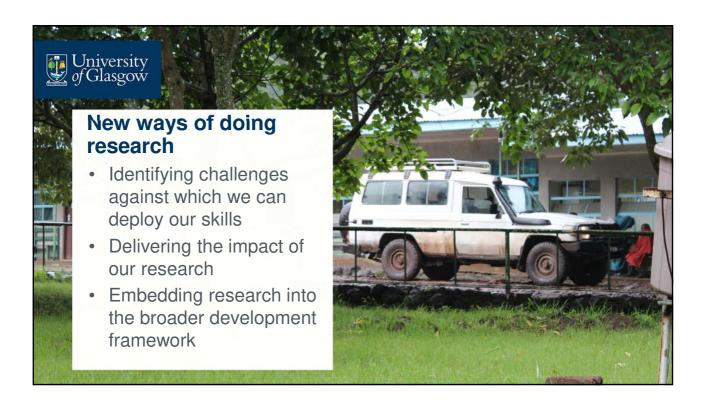
# **GCRF** competitive calls

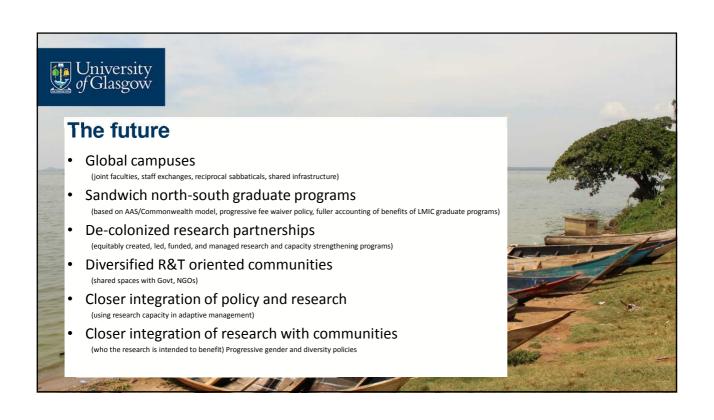


# Open calls

Call title	Council	Closing date
A Combined Food Systems Approach to Scaling-up Interventions to Address the Double Burden of Malnutrition	BBSRC	7 May 2019
Education as a Driver of Sustainable Development	ESRC	25 April 2019
Cultures, Behaviours and Histories of Agriculture, Food, and Nutrition	AHRC	16 May 2019
Development-based approaches to protracted displacement	ESRC	8 May 2019
Gender and intersectionality and Education as a driver of sustainable development network plus	ESRC	11 April 2019
Protection in Contexts of Conflict and Displacement	AHRC	9 April 2019
Education in Conflict and Crisis Research	AHRC	9 April 2019
Preventing Conflict, Building Sustainable and Inclusive Peace	AHRC	9 April 2019









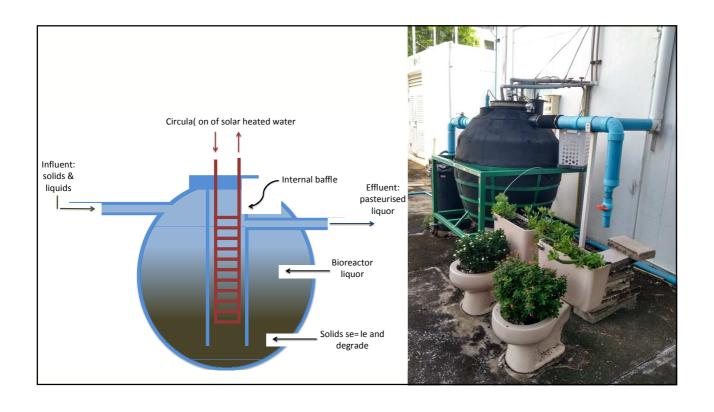
# 2A1 fortunate uneeting blogy (AIT), visit to Glasgow

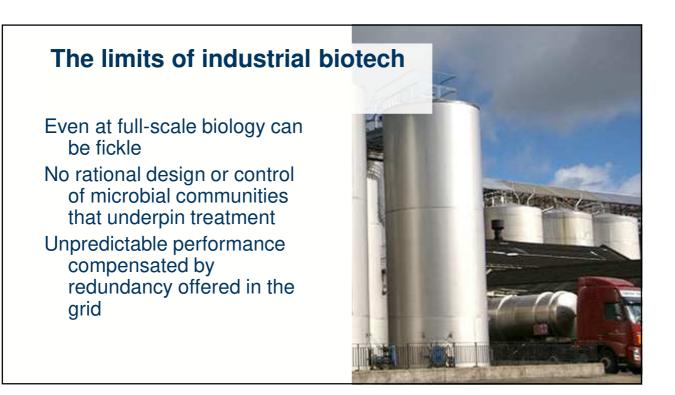
Introduction of the suite of technologies developed at AIT to the Glasgow team

Introduce the suite of molecular tools used at Glasgow to monitor and model microbial communities

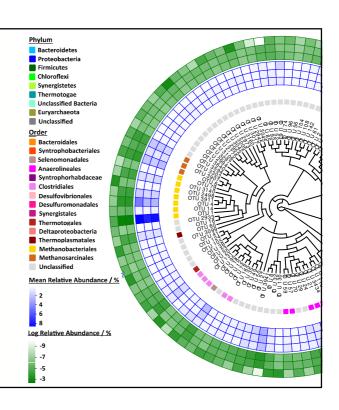
Award of ISF seed fund







WS1 In the field:
Baseline Studya
feeding forward o AIT in molecular methods
16S V4 region amplicon library for next generation sequencing
Linking microbial community with system function



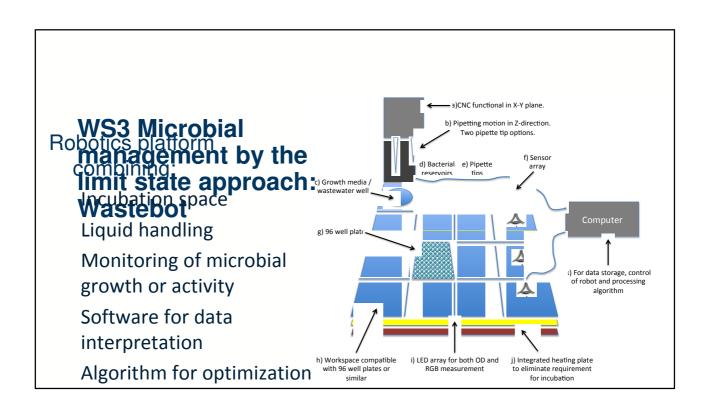
WS2 Low cost

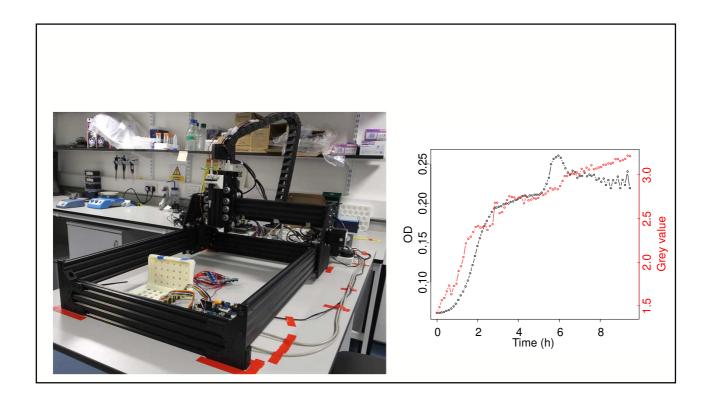
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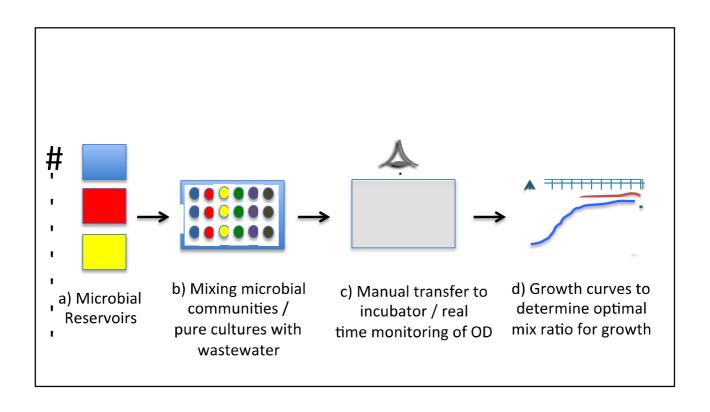
Multiplex for ultra-low cost point of use microbial monitoring

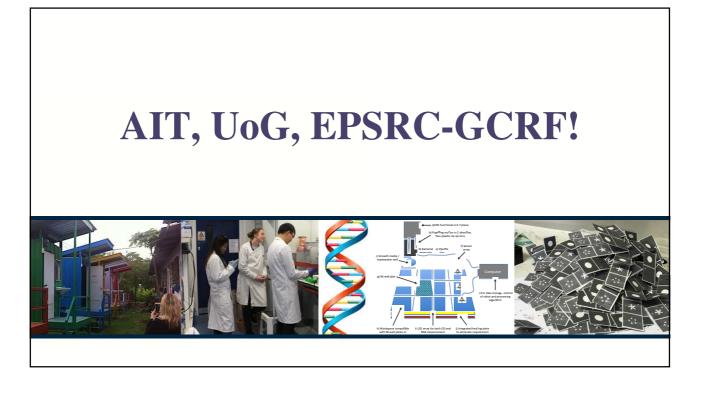
Pathogens in effluent Predictor microbe











## **Resilience Challenge Portfolio Session**

#### Overview of session:

- 15-20 minute presentation on Resilience Portfolio and calls
- 10 minutes of break-out discussion around 3 key questions
- 15 minutes of plenary feedback around questions / general Q&A around theme

## **GCRF Resilience Challenge Portfolio**

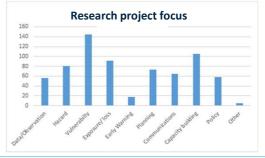
GCRF Resilience Portfolio to June 2018: 209 Projects

#### 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.



**Geographical distribution** – 78 countries; 29% in Kenya, India, Nepal, Tanzania, South Africa. Or: 31% in C'bean, Kenya, India, Nepal, Tanzania

Closest synergies with urban and food security.

#### **GCRF** Context to Resilience Calls

- Equitable Resilience: ensuring resilience enhances the Sustainable Development Goals
- Multihazard and Systemic Risk

#### **GCRF Context:**

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 Sustainable Development Goals

#### Scope:

We aim to fund 10 research proposals of up to 36 months duration.

A short <u>Expression of Interest</u> (EOI) should have been completed by 16:00 on 7 March 2019.

All proposals must be submitted through the <u>Je-S system</u> by 16:00 on 17 April 2019.

Grants are expected to start by 1 November 2019.

# **Equitable resilience: ensuring resilience enhances** the Sustainable Development Goals

#### **Global Context:**

The ambition of the UNISDR Sendai Framework is to 'build back better'.

The ambition of the SDGs is to 'leave no-one behind'.

Equitable Resilience aims to provide **an evidence base** on the ways in which climate change adaptation, humanitarian action, risk management and resilience can enable **pathways for transition to sustainable development** - ensuring equity across poor and marginalised communities in developing countries.

# **Equitable resilience: ensuring resilience enhances** the Sustainable Development Goals

#### Structure:

Transformative adaptation
Survivor-led humanitarian response
Enhancing local capacity through understanding and reducing risk
Risk management-development co-benefits

Requires interdisciplinary work embedded with practice and policy actors and/or working closely with those at risk.

## **Multiple and Systemic Risks**

Launched

Outline Bid deadline: 15 May 2019.

Up to £3.5m per project, total spend = £7m.

To start Aril 2020 for 3 years.

All projects are required to have a principal investigator based in a UK research organisation eligible for UKRI funding

webinar 1 - 09:00-11:00 BST/GMT+1 on 5 April 2019

webinar 2 - 14:00-16:00 BST/GMT+1 on 8 April 2019.

Details about how to register / dial-in will be provided on **1 April 2019**.

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

## **Multiple 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 our understanding of how environmental shocks and stresses propagate through systems to create impacts across sectors, and **how developing world countries can effectively build resilience to these systemic risks.** 

## **Multiple and Systemic Risks**

#### Focus:

The research required incorporates characterization of the exposure and **vulnerability** of communities and infrastructure to **multiple environmental processes** that have potential to cause damage especially through hazard and risk **cascades and contagion**.

Multi-hazards and Systemic Risks: that include but spread beyond natural hazards risk and impact

## **Multiple and Systemic Risks**

The programme has three 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 listed above.

It is envisaged that the projects will take a case study approach, such as a watershed or small island state. Working across scales and over time and system.

#### **Breakout Session**

#### Instructions for break-out discussions

- Each table has three questions.
- On your table please select a question. For the next 10 minutes discuss with a view to formulating a statement of questions for open discussion.
- On returning to plenary tables will be invited to offer a comment or question.
- In plenary we then continue with any outstanding comments or questions specific to the Resilience portfolio.

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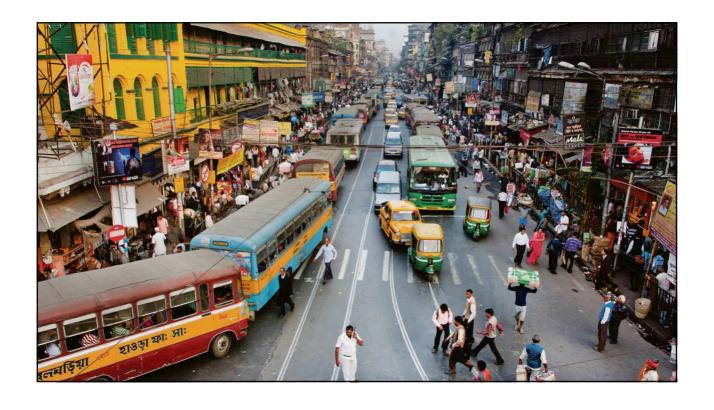
#### **Table Questions:**

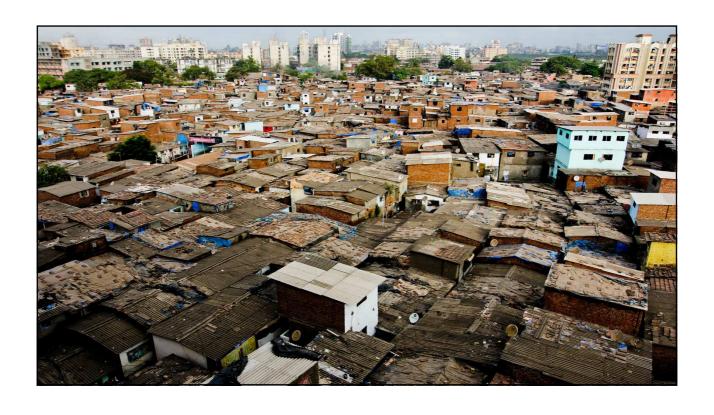
- 1. What additional support/guidance could funders provide that would help you in your roles?
- 2. Who are the key research partner and stakeholder organisations we should be partnering with to deliver research in this area and enable research outputs to have impact?
- 3. How can we engage key research partner and stakeholder organisations better to deliver the research and enable research outputs to have impact?

# Global Challenges Research Fund

## Cities and Sustainable Infrastructure Dr. Jaideep Gupte – Challenge Leader











#### Cities and Sustainable Infrastructure



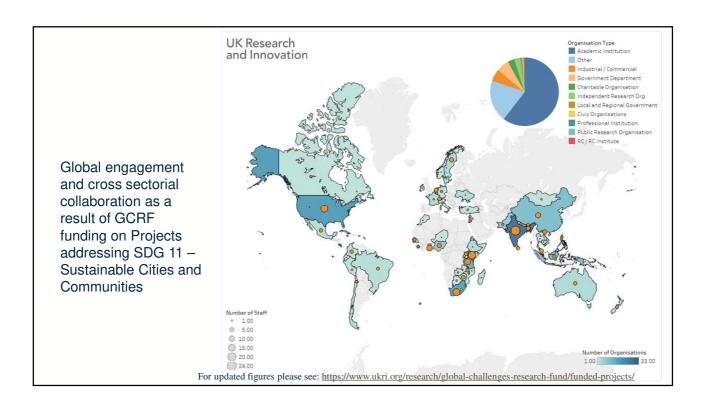
Interconnected SDGs

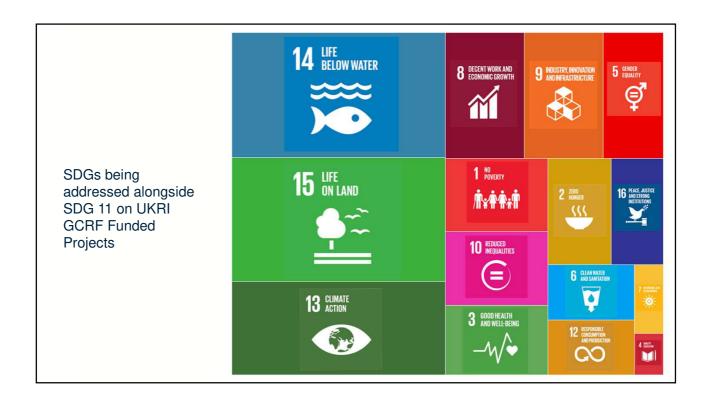
Complex urban challenges

#### Cities and Sustainable Infrastructure

- 465 GCRF projects across all Research Councils and Academies with relevance to "urban issues".
  - 262 "Urban Economy"
  - 415 "Urban Environment"
  - 221 "Urban Governance"
  - 216 "Urban Society"
  - 184 "Urban Innovation"
  - 314 "Infrastructure and essential services"
- 2607 individuals; 553 organisations; 83 countries. (Of these, 1943 people, 395 organisations and 58 countries are on active awards)
- 101 projects fall explicitly within the Cities and Sustainable Infrastructure portfolio

For updated figures please see: https://www.ukri.org/research/global-challenges-research-fund/funded-projects/





# GROW and Hubs foster coherence within and between portfolios

- Significant recent investment on urban complexities:
  - GROW: Sustainable + Healthy Neighbourhoods SHLC (Glasgow); UrbanKNOW (DPU); PEAK\_Urban (Oxford)
  - Hubs: Water Security (Newcastle); Urban Disaster Risk (Edinburgh); Accountability for Informal Urban Equity and Health (Liverpool)
- Everyday realities are relational; but sense of priority to foreground the **most marginalised (least resourced) urban residents**
- Explicitly speak to ODA priorities; South-South and "lighthouse" linkages
- Interdisciplinarity and seek to create meaningful involvement of urban practices within research
- In ways that are legible to local change makers; local cultures; local histories



# UK Research and Innovation

#### Healthy housing for the displaced: Improving refugee shelters



EPSRC-supported researchers are leading an international project to improve the living conditions of millions of refugees by designing better shelters. The interdisciplinary project is creating low-cost housing that is easy to construct in refugee camps. The new shelters are being designed to moderate extreme temperatures and provide privacy and security, allowing residents to live in dignity.

agmity.

Researchers at the University of Bath are working alongside colleagues from the Princess Sumaya University for Technology and German Jordanian University in Jordan, and Turkey's Mersin University are using new combinations of conventional and non-conventional materials including recycled plastic, bamboo, mud and straw to design shelters that can provide warmth in winter and cool conditions during the summer.

The research will be used to create a new manual for use by aid agencies, such as the United Nations lip Commissioner for Refugee which will feature guidelines on shelter design and construction in camps.

In December 2017, the project won the Royal Institute of British Architects
President's Award for Research in Housing, with the judging panel describing it
as 'important and timely'.

GtR Link: http://gtr.ukri.org/projects?ref=EP%2FP029175%2F1







### Coherence within and between portfolios

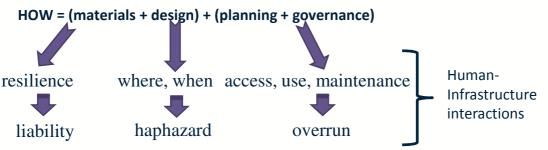
- "The city" / 'urban' as complex systems
  - Concentrate opportunities, jobs, and services
  - Important constellations of knowledge and culture
  - · Not immune to failure
  - The built environments is gendered, unequal, segregated, racialised...
  - Urban is not simply a location.
- · For example:
  - ✓Rural ↔ urban ↔ land
  - ✓ Built ↔ social ↔ natural environments
  - ✓ On-grid 
    → off-grid
  - √Surface 

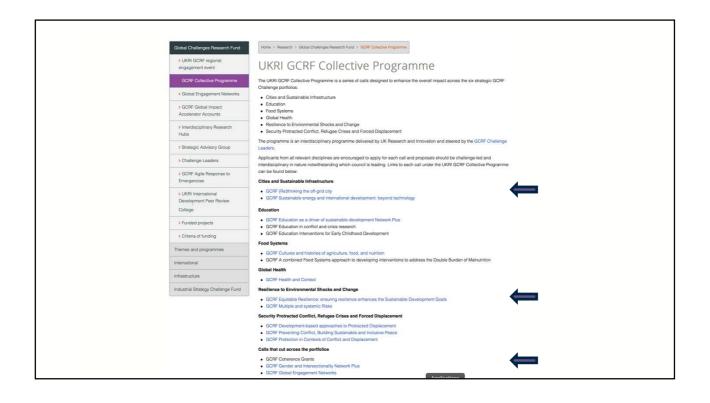
    ⇒ sub-surface

## Coherence within and between portfolios

Grand Challenge: Current infrastructure stock barely accommodates 3 billion people; we will need to built as much infrastructure in the next 40 years as we have in the last 1000 years. We must get this right.

HOW this is done is an important factor defining how cities will respond to/be resilient to natural disasters and displacement crisis.



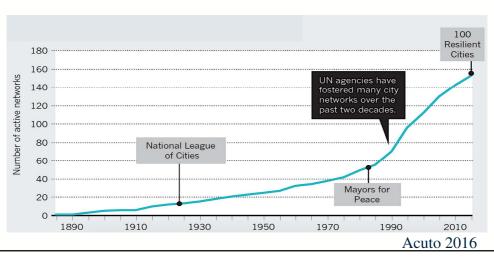


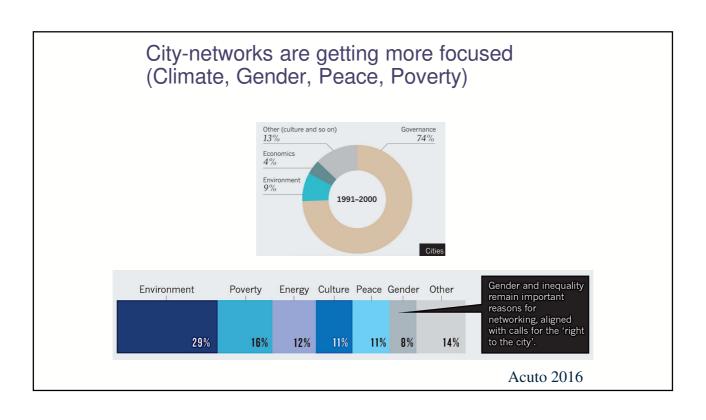
# **GCRF:** Key Criteria

- ✓ Research Excellence new approaches not constrained by traditional methodologies or disciplinary silos
- ✓ Official Development Assistance (ODA) compliance OECD guidelines
- ✓ Equitable Partnerships and Building Capacity strong and enduring partnerships between UK and developingcountry researchers to enhance the research and innovation capacity of both
- ✓ Impact: Problem and Solution Focused substantial impact on improved social welfare, economic development, and environmental sustainability

# No city is alone – no need to reinvent the wheel

Examples: C40; WHO healthy cities; Safe Cities; federations + collectives of slum dwellers





# Carry on the conversation!

- To contact any of the challenge leaders please email <u>challengeleaders@ukri.org</u>
- Twitter: @GCRF; @JaiGupte



# In groups:

What scales are relevant to our research interests (metro regions-cities-towns-neighbourhoods)?

Who are the key research partner and stakeholder organisations we should be partnering with to deliver research in this area and enable research outputs to have impact?





Our ambition is that Scotland will be the best place in the world to learn, educate, research and innovate...



"The national and international dimensions to poverty and inequality are interlinked. Scotland cannot act with credibility overseas, if we are blind to inequality here at home. And our ambitions for a fairer Scotland are undermined, without global action to tackle poverty, promote prosperity and to tackle climate change."

First Minister, July 2015





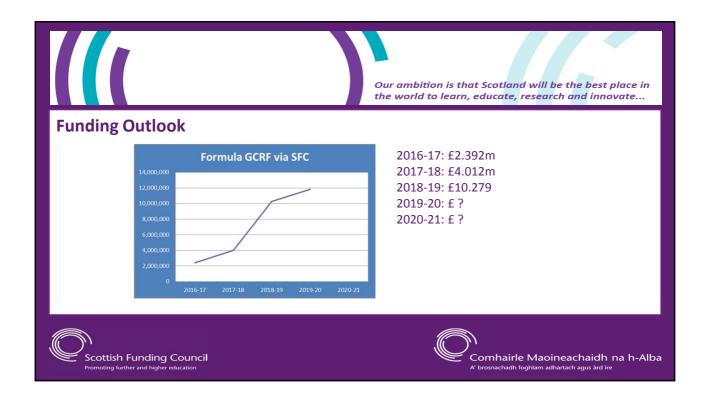


Our ambition is that Scotland will be the best place in the world to learn, educate, research and innovate...

- Mapping research strengths to global challenges
- · Creativity and inter-disciplinary work
- Co-design of research with DC partners
- · Developing capacity, here and overseas
- Boost to the sector's outward-facing activities
- · Realising Scotland's international ambitions



















#### Some observations to date

- · Rapid broadening of sector engagement
- · Investment in capacity & partnerships
- Developing routes to impact
- · Developing thematic networks
- Development of GCRF Strategies







'..Build a global community of researchers committed to sustainable development and the eradication of poverty' UK GCRF Strategy

- GCRF Strategies & annual reports
- · Planning and longer term view of ODA
- Reporting and transparency (assessment begins 3/19)
- Enabling & supporting collaboration









# New and Forthcoming Calls

Sarah Burgess – Strategy and Development Manager, AHRC &

Daniel Robinson - Senior Research Portfolio Manager, ESRC



GCRF (Re)thinking the off-grid city: Human-infrastructure interactions in the context of urban crises and urban change

GCRF | Global Challenges Research Fund



https://www.devex.com/news/in-kenya-s-largest-slum-the-world-bank-battles-cartels-for-control-of-electricity-93878 Photo: Peter DiCampu



# GCRF (Re)thinking the off-grid city



- · Delivery partners: ESRC, NERC, AHRC, EPSRC and British Academy
- Objective: to support the most marginalised and least resourced urban residents in the face of acute shocks, chronic stresses and urban change. The call will focus on human-infrastructure interactions and support research that leads to actionable policy alternatives, engineering solutions and social innovations.
- *Proposed* size of the grants: £500k-£2m (up to 3 years)

GCRF | Global Challenges Research Fund



# GCRF (Re)thinking the off-grid city



- Key dates:
  - Call opens: 23<sup>rd</sup> April 2019
  - Intention to submit deadline: 29th May 2019
  - Call closes: 24th July 2019
  - Panel: November 2019
  - Grants start: 1st February 1st April 2020
- Enquiries:GCRFOff-GridCities@esrc.ukri.org or ESRCGCRFQueries@esrc.ukri.org

 $\underline{https://esrc.ukri.org/funding/opportunities/gcrf-re-thinking-the-off-grid-city-human-infrastructure-interactions-in-the-context-of-urban-crises-and-urban-challenge/screening-funding-opportunities/gcrf-re-thinking-the-off-grid-city-human-infrastructure-interactions-in-the-context-of-urban-crises-and-urban-challenge/screening-funding-opportunities/gcrf-re-thinking-the-off-grid-city-human-infrastructure-interactions-in-the-context-of-urban-crises-and-urban-challenge/screening-funding-opportunities/gcrf-re-thinking-the-off-grid-city-human-infrastructure-interactions-in-the-context-of-urban-crises-and-urban-challenge/screening-funding-funding-opportunities/gcrf-re-thinking-the-off-grid-city-human-infrastructure-interactions-in-the-context-of-urban-crises-and-urban-challenge/screening-fund$ 



# GCRF Sustainable energy and international development: beyond technology

GCRF | Global Challenges Research Fund



# GCRF Sustainable energy and international development



- Delivery partners: ESRC, NERC and InnovateUK.
- Objective: Deliver cutting-edge research that enriches our understanding of the intertwined social, environmental, cultural, political and economic factors that affect and shape energy production, access and use in developing countries. Projects should be multi-sectoral and interdisciplinary.
- Proposed size of the grants: £1m £1.5m (3 years)



# GCRF Sustainable energy and international development



- Key dates:
  - Call opens: 1st week of April 2019
  - Intention to submit deadline: 15<sup>th</sup> May
  - Call closes: 2<sup>nd</sup> week of July 2019
  - Panel: November 2019
  - Grants start: 1st February 1st April 2020
- Enquiries: GCRFEnergy@esrc.ukri.org

GCRF | Global Challenges Research Fund



# Equitable Resilience – ensuring resilience enhances the Sustainable Development G enhances the Sustainable Development Goals

- Delivery partners: led by ESRC, in partnership with NERC, AHRC and EPSRC
- · Objective: To provide a systematic and rigorously researched evidence base on the ways in which climate change adaptation, humanitarian action, risk management and resilience can enable pathways for transition to sustainable development - ensuring equity across poor and marginalised communities in developing countries.
- · The call is structured around four areas: Transformative adaptation , survivor-led humanitarian response, enhancing local capacity through understanding and reducing risk and risk management-development co-benefits
- Proposed size of the grants: Aim to fund 10 proposals of up to £1 million fEC (36 months max)



# Equitable Resilience – ensuring resilience enhances the Sustainable Development Goals

· Key dates:

• Call closes: 17th April 2019

• Panel: September 2019

 Panel Outcomes: October 2019 • Grants start: 1st November 2019

• Enquiries: EquitableResilience@esrc.ukri.org

www.esrc.ukri.org/funding/funding-opportunities



# Multi-hazards and Systemic Risks

- Delivery partners: led by NERC
- · Objective: To provide a better understanding of the drivers of multihazard events, how the impacts of these events cascade through socioeconomic systems and to use this knowledge to determine which interventions and policies are effective at mitigating the risks, particularly for vulnerable groups. The focus is on multiple natural hazards and the interrelated environmental, social, economic, cultural and health risks, and effects that can be triggered by these events, or can amplify or compound their impacts.
- Proposed size of the grants: two projects of up to £3.5 million will be funded, lasting up to three years



# Multi-hazards and Systemic Risks

#### Key dates:

• Webinars: 5 and 8 April 2019

• Deadline for outline proposals: 15 May 2019

• Closing date for invited full bid: September 2019

Projects start: April 2020

• Enquiries: <u>GCRFResilience@nerc.ukri.org</u> <u>www.nerc.ukri.org/funding/application/currentopportunities</u>



# Key Criteria



## GCRF: Fund Level Assessment Criteria

- ✓ Research Excellence new approaches not constrained by traditional methodologies or disciplinary silos
- ✓ Official Development Assistance (ODA) compliance OECD guidelines
- ✓ Equitable Partnerships and Building Capacity strong and enduring partnerships between UK and developing-country researchers to enhance the research and innovation capacity of both
- ✓ Impact: Problem and Solution Focused substantial impact on improved social welfare, economic development, and environmental sustainability

GCRF | Global Challenges Research Fund



# What is GCRF looking for?

- Proposals need to be ODA challenge-led/solution-focused compliance statements need to be focused on and specific to the partner/target countries
- Applicants need to demonstrate an deep understanding of the context (societal, cultural, political, historical, economic etc.)
- In-country partners need to be appropriate, involved in the scoping and delivery of the research, and add value
- Support adaptability and resilience by focusing on key competencies/expertise required rather than specific work streams and staff
- Be clear and realistic about the potential impact
  - Directly associated with this grant
  - What are the benefits beyond the lifetime of the grant?



Je-S

Check the specific call documentation about Principal and Co-Investigator eligibility.

#### Entering applicants

- All Principal and Co-Investigators must have a fully registered 'Research Proposal' type Je-S account
- Please ensure that you submit any account requests as soon as possible.

#### Contact Je-S helpdesk for technical queries

- JeSHelp@rcuk.ac.uk
- 01793 444164

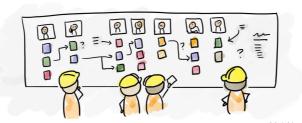
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# Pathways to Impact

#### Should:

- · provide timelines and milestones for grant specific activities
- · identify a breadth of significant and measurable impacts
- demonstrate understanding of the societal and cultural context of the research
- outline the approaches taken to ensure sustainability and potential for legacy beyond the initial investment



GCRF | Global Challenges Research Fund

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# **Notes on Costs**

- Principal investigators <u>must</u> be based at an eligible UK RO (ESRC 80% contribution)
- ESRC will fund the justified costs for international co-investigators from ROs of comparable standing with UKRI-recognised UK ROs at 100%
- No cap on costs associated with international co-investigators' contribution but all costs to be fully justified
- International co-investigators from countries not on the DAC list are expected to make a significant contribution to their own research costs and will not be eligible for indirect costs
- Contributions to indirect & estates costs for organisations from DAC list countries are eligible

Please see costings guidance for further detailed information

GCRF | Global Challenges Research Fund



# Points to Note

- Applications must demonstrate:
- ODA compliance
- · Research excellence
- Appropriate leadership
- Interdisciplinarity
- Development of equitable partnerships
- Multi-partner engagement and collaboration
- Value for money and sustainability

