

GLOBAL RESEARCH HUBS TACKLE WORLD'S TOUGHEST CHALLENGES

UK Research and Innovation (UKRI) is pioneering an ambitious new approach to tackle some of the world's most pressing challenges through a £200M investment across 12 global research Hubs.

Over the next five years the Interdisciplinary Research Hubs will work across 85 countries with governments, international agencies, partners and NGOs on the ground in developing countries and around the globe, to develop creative and sustainable solutions which help make the world, and the UK, safer, healthier and more prosperous.

The new Hubs being announced in detail today are funded through the Global Challenges Research Fund (GCRF) - which is a key component in delivering the UK AID strategy and puts UK-led research at the heart of efforts to tackle the United Nations Sustainable Development Goals (SDGs).

The Hubs focus on a wide range of global challenges from improving human health and promoting gender equality and social justice to fortifying ecological systems and biodiversity on land and sea, generating agricultural sustainability and fostering greater resilience to natural disasters. Building on existing expertise and experience each Hub aims to achieve tangible outcomes that will improve the lives and livelihoods of millions across the world.

Announcing the 12 UKRI GCRF Hubs alongside 16 other international research partnerships, Science and Universities Minister Chris Skidmore, said:

“The UK has a reputation for globally influential research and innovation, and is at the centre of a web of global collaboration – showing that science has no borders.

“We have a strong history of partnering with other countries – over 50% of UK authored research involves collaborations with international partners.

“The projects being announced today reinforce our commitment to enhance the UK's excellence in innovation at home and around the world, driving high-skilled jobs, economic growth and productivity as part of the modern Industrial Strategy.”

Professor Andrew Thompson, UKRI Executive Champion for International, said:

“The sheer scale and ambition of these Hubs is what makes them so exciting. They enable us to deliver a coordinated global response with UK researchers working in partnership with governments, NGOs, community groups, international agencies and researchers across developing countries. Each Hub has the potential to transform the quality of life for many people throughout the world and safeguard our planet for future generations.”

The UKRI GCRF Hubs at a glance:

- 12 Hubs with up to £20 Million each over the next five years

- Over 85 countries are engaged across the 12 Hubs
- 550 researchers are involved with a further 400 partner organisations
- Each Hub addresses multiple SDGs, with 16 SDGs addressed in total

The UKRI GCRF Global Interdisciplinary Research Hubs have been announced alongside the Fund for International Development, a £79 million investment delivered by UKRI aimed at enhancing the UK's excellence in research and innovation through global engagement, forging new bilateral and multilateral research and innovation programmes with global partners.

Project summaries

UKRI GCRF Accelerating Achievement for Africa's Adolescents Hub

By 2050, Africa will be home to half a billion teenagers. Despite their incredible creativity and potential, many of these young people will be trapped in a cycle of poverty, violence, low education and poor health. This Hub will work with policy makers, NGOs and adolescents themselves to discover which combinations of services can most efficiently and cost-effectively help adolescents achieve their potential. By testing different combinations such as malaria prevention, business skills and violence prevention, this Hub will identify 'accelerator' packages to boost nutrition, health, schooling, employment, gender equality and safety for teenagers across Africa.

Lead organisation: University of Oxford, Geographical focus: Africa

UKRI GCRF Accountability for Informal Urban Equity Hub

Over half of the world's population live in cities and one in three of these live in informal settlements in low and middle-income countries. But inadequate access to services and limited opportunities to shape their environment lead to a wide range of physical and mental health risks. This Hub will support marginalised people to claim their health rights and helps build government accountability and capacity through evidence-based research to inform policy change at all levels.

Lead organisation: Liverpool School of Tropical Medicine, Geographical focus: East Africa, West Africa and South-Central Asia

UKRI GCRF Action Against Stunting

Progress against the global goal to reduce child stunting by 40 per cent by 2030 has stalled. To accelerate gains and help millions of children reach their potential, there is an urgent need to change the 'frame' to better understand the factors, synergies and relationships that cause stunting. Our Hub will harness world leading researchers to the communities themselves to build up a comprehensive research picture of the 'whole child', enabling joined-up, child-centred interventions.

Lead organisation: London International Development Centre and London School of Hygiene and Tropical Medicine, Geographical focus: West Africa, South-Central Asia and South-East Asia

UKRI GCRF Gender, Justice and Security Hub

Conflict and gender-based violence have devastating, long-term consequences on individuals, families and communities. They also severely hamper the successful delivery of development goals internationally. This Hub seeks to advance sustainable peace by developing an evidence-base around gender, justice and inclusive security in conflict-affected societies. Working with international partners, it will expand research capacity and interdisciplinary research and connect with leading ambassadors for gender justice to translate insights into ongoing actions that improve lives.

Lead organisation: London School of Economics and Political Science, Geographical focus: South America, West Africa, East Africa, Middle East, South-Central Asia and South-East Asia

UKRI GCRF Living Deltas Hub

River deltas comprise just one per cent of global landscapes yet support over half a billion people. Deltas are vital social-ecological systems and global food-baskets, but the terrain and the livelihoods of those who rely on them are under threat from human exploitation, environmental degradation and climate change. Focusing on three deltas in Asia, this Hub will operate on a model of equitable partnership with the delta-dwellers and the research community working together to develop new knowledge and policies. The aim is to safeguard delta futures through more resilient communities and sustainable development.

Lead organisation: Newcastle University, Geographical focus: South and South-East Asia

UKRI GCRF One Health Poultry Hub

Population growth is driving global demand for safe, low-cost poultry meat and eggs but rapid intensification creates conditions for diseases. This Hub explores how to meet rising demand while minimising the risk to public health. It will study how intensification increases risk of infectious disease and antimicrobial resistance, why certain processes and behaviours are risky and establish when and where to test interventions for disease control. Working with strong networks of local, regional and global stakeholders, the evidence generated will be put to immediate use.

Lead organisation: Royal Veterinary College, Geographical focus: South Central Asia and South-East Asia

UKRI GCRF One Ocean Hub

We are entirely reliant upon the ocean but over-exploitation, competing uses, pollution and climate change are pushing ocean ecosystems towards a tipping point. This Hub will bridge current disconnects across law, science and policy to empower local communities, women and youth to co-develop research and solutions. The aim is to predict, harness and share equitably environmental, socioeconomic and cultural benefits from ocean conservation and sustainable use. The Hub will also identify hidden trade-offs between more easily monetized fishing or mining activities and less-understood values of the ocean's deep cultural role, function in the carbon cycle, and potential in medical innovation.

Lead organisation: University of Strathclyde, Geographical focus: East Africa, West Africa, Southern Africa, Oceania and the Caribbean

UKRI GCRF South Asian Nitrogen Hub

Humans have massively altered flows of nitrogen on our planet, leading to both benefits for food production and multiple threats to the environment. The result is a web of interlinked problems, as nitrogen losses from agriculture and fossil fuel combustion cause air and water pollution. This Hub will develop a more coherent picture of the nitrogen cycle. It will quantify nitrogen flows and impacts and explore how to improve nitrogen management in agriculture and reduce the need for synthetic fertilizers by making better use of manure, urine and natural nitrogen fixation processes.

Lead organisation: NERC Centre for Ecology and Hydrology, Geographical focus: South- Central Asia

UKRI GCRF South-South Migration, Inequality and Development Hub

Migration between the countries of the Global South accounts for nearly half of all international migration, 70 per cent in some places, potentially contributing to delivery of the Sustainable Developmental Goals by creating opportunities for work and for the transfer of resources, knowledge and skills between developing countries. The developmental benefits of migration are undermined by inequalities in access to the opportunities that South-South migration can bring and by limited and unequal access to rights for migrants and their families. This Hub will work with academics, artists, community organisers, international organisations and policy makers to develop approaches which reduce inequalities associated with South-South migration.

Lead organisation: Coventry University, Geographical focus: South America, Caribbean, Africa, Middle East and East, South-East and South-Central Asia

UKRI GCRF Trade, Development and the Environment Hub

Thousands of species are threatened globally with extinction, there has been a swift decline in biodiversity and ecosystem resilience and people are being kept in poverty as trade in wildlife and agricultural commodities from low and middle-income countries has rapidly increased. This Hub includes economists, trade modellers, political scientists, ecologists, development scientists, large companies, UN bodies and NGOs who will work together across supply chains to influence trade related policy and practice. It will also produce research to help ensure that trade becomes a driver of positive change in the world, with biodiversity loss halted and people permanently lifted out of poverty.

Lead organisation: UN Environment World Conservation Monitoring Centre, Geographical focus: South America, Central, East and West Africa and East and South-East Asia

UKRI GCRF Urban Disaster Risk Hub

Rapid urbanisation presents a time-limited global opportunity to embed disaster risk management in urban development especially when you consider 60 per cent of the area expected to be urban by 2030 is yet to be built. This Hub will work with international agencies to bring disaster risk management to the centre of global urban policy and practice, strengthening the voice and capacity of the urban poor. Bringing together leading researchers with inspiring community and government leaders the Hub will work at an unprecedented scale to deliver real impact through interdisciplinary research.

Lead organisation: University of Edinburgh, Geographical focus: South America, East Africa, Middle East and South-Central Asia

UKRI GCRF Water Security and Sustainable Development Hub

Eighty per cent of the world's population live in areas threatened by water security yet efforts to resolve this are repeatedly thwarted by pressures such as pollution, extreme weather, urbanisation, over-abstraction of groundwater and land degradation. This Hub takes a broad view of water systems to explore the challenges and barriers to water security from the impact of different social, cultural and environmental values of water through to the consequences of fragmented water governance. It will tackle these barriers by providing a forum, open to all stakeholders, to jointly question, discuss, and construct new ideas to resolve water security issues.

Lead organisation: Newcastle University, Geographical focus: South America, East Africa and South-Central Asia and South-East Asia

Notes to Editors:

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UK Research and Innovation works in partnership with universities, research organisations, businesses, charities, and government to create the best possible environment for research and innovation to flourish. We aim to maximise the contribution of each of our component parts, working individually and collectively. We work with our many partners to benefit everyone through knowledge, talent and ideas.

Operating across the whole of the UK with a combined budget of more than £7 billion, UK Research and Innovation brings together the seven Research Councils, Innovate UK and a new organisation, Research England.

www.ukri.org

The Global Challenges Research Fund supports cutting-edge research and innovation that addresses the global issues faced by developing countries. It harnesses the expertise of the UK's world-leading researchers, focusing on: funding challenge-led disciplinary and interdisciplinary research; strengthening capability for research, innovation and knowledge exchange; and providing an agile response to emergencies where there is an urgent research or on-the-ground need.

It is a £1.5 billion fund which forms part of the UK Government's Official Development Assistance (ODA) commitment and is overseen by the Department for Business, Energy and Industrial Strategy (BEIS), and delivered through nine delivery partners including UK Research and Innovation, the UK Academies, the UK Space Agency and other funding bodies.