

UKRI-NERC/GCRF Adaptation and Resilience COP programme

The four questions below are proposed by an expert panel drawn for the current Intergovernmental Panel on Climate Change (IPCC). The questions are intended to help coordinate programme workshops and contribute to the structure of a COP panel/online event.

1. What research is needed to respond to the adaptation gap?

The adaptation gap describes the difference between current adaptation actions and those needed to avoid harm and enable wellbeing. Meeting the adaptation gap can include incremental adjustments to existing programmes and infrastructure as well as ambitious, transformative agendas. Many communities and countries are planning for climate change adaptation. There is now an urgent need to move to action. Without adequate attention to inclusivity and evidence-based policy, accelerating and scaling-up action to close the adaptation gap might inadvertently generate further inequality in wellbeing and undermine long-term development prospects.

- What planning and implementation regimes are appropriate at national, sub-national and local level to make sure accelerated adaptation is also inclusive and informed?
- How can research stimulate the learning needed to accelerate adaptation processes to respond to climate urgency, without sacrificing long-term planning goals?
- How can adaptation finance meet adaptation needs and what modalities can be used to get finance flow to where it is needed in building resilience urgently and at scale?

2. How to evaluate the feasibility of adaptation options and outcomes for resilient and sustainable development?

We know a good deal about what adaptation options are available, but do not routinely assess feasibility and the outcomes of adaptation. As adaptation becomes more commonplace and implemented at scale it increasingly influences our ability to meet the Sustainable Development Goals as part of being resilient to multiple shocks including pandemics like COVID-19. Evaluation is important for those funding adaptation action and research to provide accountability and learning to improve adaptation process and actions at all levels.

- What lessons can we learn from current research on the evaluation of adaptation feasibility and outcomes from multiple viewpoints?
- How can evaluation research feed into the immediate needs of adjusting policy, finance and programming, including for transformative adaptation?

- What can be done to enable evaluation when data is scarce, for example when baselines are missing, time-series data unreliable or those impacted are difficult to reach?

3. What examples are there of transformative adaptation research enabling action through addressing social justice, capacity building and governance?

By connecting fundamental and applied research the solution space for adaptation is much enhanced. Through action methods, citizen science, public engagement, capacity building and participatory approaches, research can extend its contribution beyond core science. Research for climate justice includes recognising diverse local and indigenous perspectives and opening dialogues between policy makers and those carrying the greatest burden of adaptation, often the marginal, women, young or poor. This can help stakeholders move past baked-in assumptions and behaviour to consider transformative agendas and open new opportunities for rapid, inclusive and sustainable adaptation.

- What research has improved capabilities and adaptive capacity to reduce vulnerability and climate risk for the poor?
- How can research help communities, businesses and governments grapple with trade-offs when choosing between different adaptation options?
- How is research helping address structural and governance challenges facing countries in adapting to systemic and emergent risks?

4. How can research funders, universities and data managers best champion inclusive, urgent and solutions-oriented adaptation research?

Climate risk impacts society and the environment as part of a wide array of challenges and opportunities, including economic, social, ecological and biological change. The scale of the adaptation challenge invites us to rethink institutional roles and functions. This might include open data, new research funding mechanisms and new roles for universities as points of capacity and stability in fast changing social and policy contexts. There are implications for international, national and local organisations.

- How can universities and research organizations have a greater impact in supporting the societal changes required to build resilience to climate risk amidst wider, growing uncertainties?
- What types of open data management models can enable increased integration and sharing of data including with universities, regional institutions, NGOs, government agencies and the private sector to benefit those facing climate risks?
- What research funding mechanisms, including from charities and the private sector, can best support solutions-oriented inclusive adaptation research?

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