



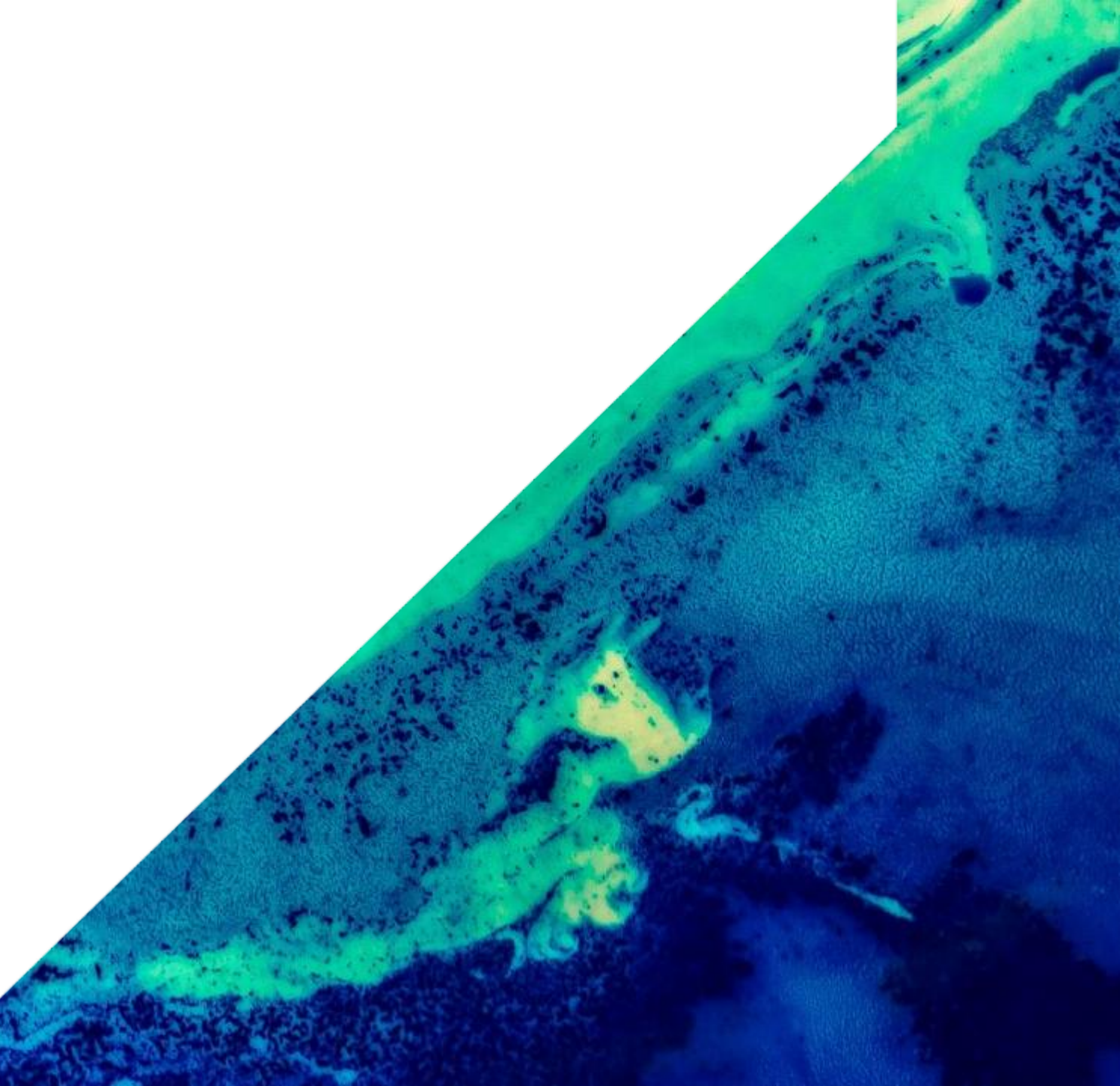
**UK Research  
and Innovation**

**COP26**

**The role of UKRI in climate  
research and innovation**

**7 September 2021**


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# Purpose

1. Study the roles and contributions that national governments, research performers, and research funders can play to help apply and translate scientific knowledge into policies and actions that address the climate crisis
2. Demonstrate the importance of drawing on expertise at local, regional, and (inter)national level, and the need to increase co-operation between the research community and policy makers.



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# Enabling new knowledge and its applications

1. Supporting Research and Innovation programmes (eg RAPID & SUNRISE)
2. Enabling science to inform policy (e.g. IPCC)
3. Investing in the next generation of researchers and innovators
4. Supporting national institutes (e.g. Rothamsted, British Antarctic Survey)
5. Providing national facilities (e.g. RRS Sir David Attenborough)





# RAPID/ONSAP Programmes

- The Rapid Climate Change Programme explored the causes of rapid switches in climate, with a primary focus on the Atlantic Ocean's thermohaline circulation.
- Overturning in the Subpolar North Atlantic Programme (OSNAP) is a USA-led initiative that brings together partners across Canada, France, Germany, Netherlands, Germany and the UK.
- The outcomes of these programmes have led to numerous further research projects, including directly contributing to IPCC reports.


# Strategic University Network to Revolutionise Indian Energy (SUNRISE)

- SUNRISE is an ambitious programme to rapidly accelerate and prove low cost printed PV and tandem solar cells for use in off grid Indian communities within the lifetime of the project.
- The research impact of scalable and stable low cost metal mounted PV products will be supported by technology demonstration at five off grid village communities (each of up to 20,000 people).
- The use of solar energy generation and storage and critically the adoption of gasification plant for agricultural wastes will not only improve the Indian air quality but dramatically reduce the potential impact on climate change from industrialisation and growth.



# Informing policy (IPCC)

- UKRI-funded researchers account for 87% of Working Group 1 UK authors of the Intergovernmental Panel on Climate Change (IPCC) sixth assessment report.
- The report has brought together substantial evidence clearly showing, with increasing certainty, that limiting the future negative impacts of climate change will require reaching at least net zero CO<sub>2</sub> emissions, along with strong reductions in other greenhouse gas emissions.
- Without these measures, global warming of 1.5°C and 2°C will be exceeded during the 21st century.

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# Local, regional to international

1. Building networks of scientific excellence (eg LWEC)
2. Contributing to multi-lateral research programmes (eg Belmont Forum)
3. Supporting Policy Fellowships
4. Connecting to international policy fora (eg COP 26)

# Living With Environmental Change (LWEC)

**Background:** LWEC is a network of 22 UK-public sector organisations that fund, carry out and use environmental research, including key government departments.

**Purpose:** Enhances the impact of the UK's publicly-funded environmental change research, evidence and innovation by enabling members to co-ordinate strategic activities.

**Measuring success:** Delivered range of products including impact report cards aimed at decision makers, policy and practice notes providing non-technical conclusions and recommendations from research in areas ecosystem services, health and well-being, flooding and coastal erosion, water and climate.

The logo for Living With Environmental Change (LWEC) is located in the bottom right corner. It features the text "Living With Environmental Change" in a dark green, sans-serif font. To the right of the text are two overlapping circles of the same color. The entire logo is enclosed within a thin, light green oval border.

Living With Environmental Change



# Belmont Forum



**Background:** The Belmont Forum was established in 2009 as a partnership of funding organisations, international science councils and regional research consortia.

**Purpose:** The Forum encourages international research aimed at understanding, mitigating and adapting to global environmental change.

**Measuring success:** Since its establishment, the Forum has successfully led 17 calls for proposals, supporting 134 projects and more than 1,000 scientists and stakeholders, representing over 90 countries.

# UKRI Policy Fellowships

- In 2011, NERC awarded the Humanitarian Future Programme (HFP) a Knowledge Exchange Fellowship to identify and share learning on methodologies and approaches which can strengthen science-humanitarian dialogue. The online research collates the dialogue approaches that this research identified. The resource has provided a framework to encourage knowledge exchange between the providers and users of science for disaster risk reduction.
- In the run-up to COP26, four fellows have been selected as COP26 Fellows in an initiative jointly funded by ESRC and EPSRC. The Fellows will also support work being done by the COP26 Universities Network, an initiative that brings together most of the university within the UK.



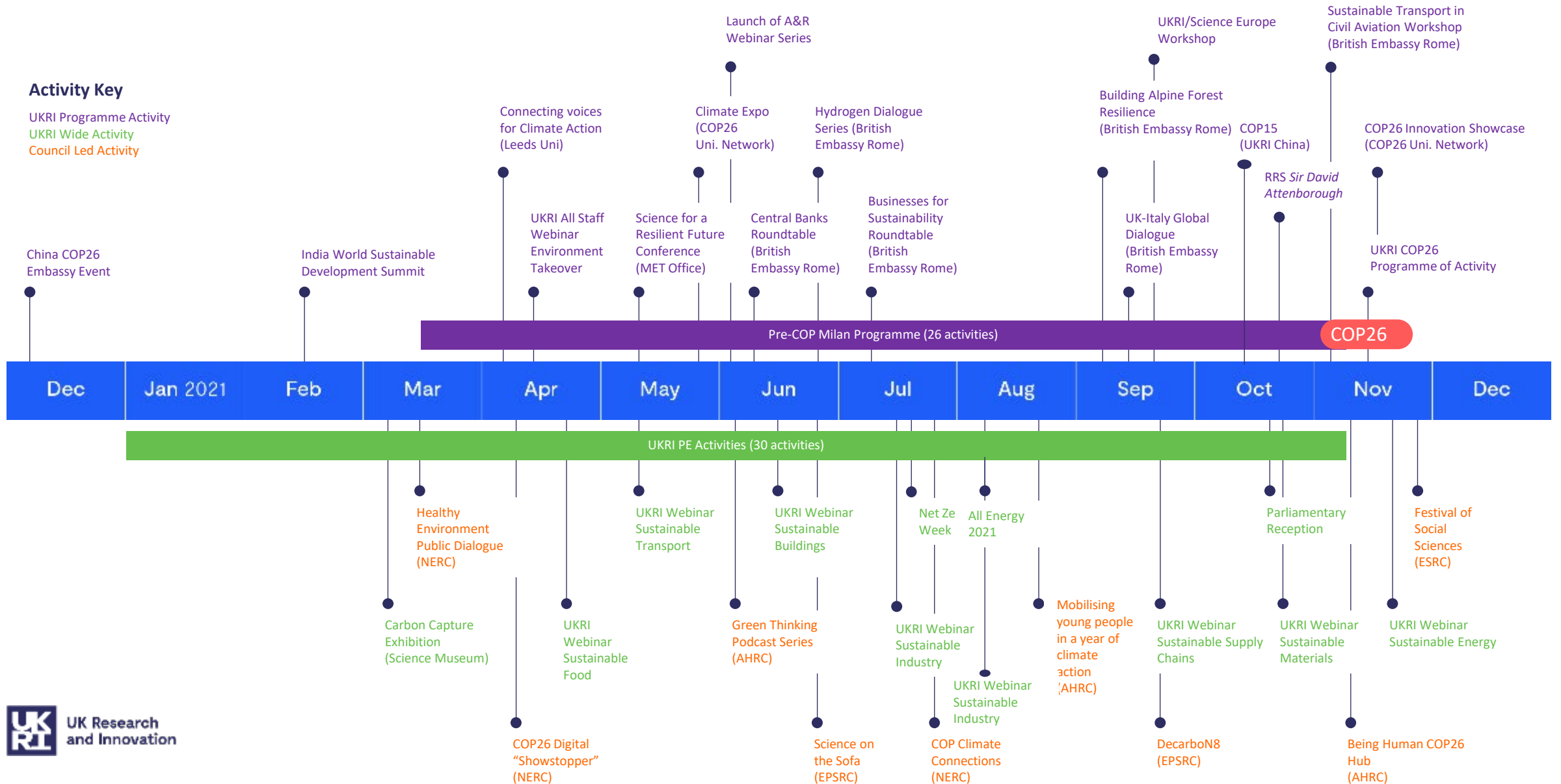
# UKRI Activity Leading to COP26

## Activity Key

UKRI Programme Activity

UKRI Wide Activity

Council Led Activity





# COP26 Adaptation and Resilience Events Series

*Sustainable and Inclusive Climate Adaptation and Resilience: local leadership for a global goal*

Series of international online events aligned to UK COP26 presidency's **adaptation and resilience** theme.

Aim to bring together global communities, businesses, researchers from a range of disciplines and local, regional and national-level policymakers to showcase international research efforts and support solution-driven discussions.

## **Aiming for finale event at COP26 conference**

- Events will produce written lessons around core question set – will feed in to synthesis report and enable a co-produced message to be presented at COP26
- Events will be recorded and a video 'highlights reel' displayed at finale event, bringing local voices from these regions and the UK directly into the conference
- We will showcase outcomes and research achievements from the series through a panel discussion around next steps and focus for research in the decades ahead
- Panel will have live online participation drawing from our regional pre-COP events as well as being live broadcast online



**Thank you**



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