

Urgency in Resilience and Adaptation

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As we approach 1.1°C of average global warming, the response of the climate system to this added energy means an increase in extreme weather events, exerting further pressure on already stressed built infrastructure and natural systems.

Even if global temperature rises are kept below 2°C, these pressures will increase and adaptation to extreme weather will become increasingly difficult. Even if mitigation efforts are successful, adaptation to ensure our resilience to this new climate is essential for survival. Given the urgency to mitigate at the same time, adaptation responses must avoid lock-in to higher carbon emissions. These include using energy intensive air conditioning to tackle heatwaves, or building large CO₂ intensive concrete structures for flood prevention.

There is a tendency to approach adaptation in a reactive rather than proactive manner; we wait for a disaster to hit before we think about how to prevent the next one. This 'wait and see' approach leads to a loss of urgency. The complex governance of adaptation further dilutes urgency. Who is responsible for adaptation? Is it state? Is it community? Is it industry? Often there is a vacuum of responsibility for adaptation, with local actors waiting for the state to provide adaptation.

Urgency is also lost because of uncertainty. There are concerns over the validity of models, or uncertainty about the scale of impacts under different emissions scenarios. Adaptation is often seen as too difficult to plan for in a cost-effective way. This can lead to maladaptation, designing and preparing for a past or current climate instead of the future.

Extreme weather events, their impacts, and adaptation responses often play-out at a local scale. Consideration of social, economic, and physical differences across communities is critical.



There are spatial differences in the scale of impacts across the UK for instance, which can affect the sense of urgency in some areas. For example, communities with frequent flooding are more likely to see the need to adapt quickly than those that have not experienced a flood in decades. These local factors are part of a larger system, so an overview of interactions at regional scale is needed as well as local.

Resilience to climate change must be considered in terms of social and community responses, not only physical infrastructure. Responding to the climate emergency potentially threatens sense of place and identity, social cohesion and mental health. Awareness-raising, education, and care for vulnerable people are key. Adaptation should not be only be for the most valuable areas or the richest communities.

The climate emergency is mostly about mitigation – the urgency of reducing global carbon emissions. An integrated approach to adaptation is necessary, where buildings, infrastructure, people, institutions, and the natural environment are recognised as being interconnected and part of the same system. To tackle this we urgently need sectors and organisations to work together rather than in silos.