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Put everything on the table to help defuse climate time-bomb

Stantec's *Lucy Wood* describes the recent IPCC Climate Report as a "survival guide for humanity" and says it's time to put everything on the table to help defuse the climate time-bomb.

Every week, we're seeing more stark reports, more glaring evidence, increasingly alarmed climatologists and tangible evidence that climate change is already having serious consequences for the

environment, society and economy. Yet, we're failing to act quickly enough to reduce the negative effects and grasp solutions that would benefit us all.

The recently released IPCC Climate Report is being touted as a "survival

guide for humanity", and for good reason. It concludes human activity is the cause of rapid climate change that will likely see global temperatures soon overshoot the 1.5°C mark on average, altering all aspects of our planet.

With the UN Secretary General saying our world needs action 'everything, everywhere, all at once' – there isn't anyone, anywhere who can sit in ignorance.

It suggests current levels of support and investment are falling well below what is required for us to achieve our climate goals, noting if current trends continue, we will overshoot the 1.5°C of warming as soon as the 2030s.

Moving closer to a point of no return

We're moving closer to a point of no return. This means fast-tracking mitigation measures – by actively slowing down the rate of change, pulling carbon from the atmosphere, and adapting our infrastructure quickly – must be our priority.

Our infrastructure, especially in poorer nations and regions, is vulnerable and will soon not be fit for purpose. As a global climate leader, the UK must act, and be seen to act, urgently. Our

government must focus directly on immediate decarbonisation, while making communities resilient.

The solutions are in plain sight, with the IPCC calling for humanity to harness the 'multiple, feasible and effective options to reduce greenhouse gas emissions and adapt to human-caused climate change'. Carbon dioxide removal technologies and harnessing technological innovation will be key to controlling future climate change once 1.5°C is exceeded.

Innovative decarbonisation technology

In the UK, channelling our efforts towards more innovative decarbonisation technology is, thankfully, underway. The government's financial backing (of up to £20bn) for the early development of carbon capture and storage (CCUS), which was mentioned in the spring budget, is a welcome move. Investing in the roll-out of technology will be positive for the UK and the green economy.

Effective mitigation is only possible if every industry makes deep cuts to emissions. Cleaning up our energy sector is an obvious next step. Classifying nuclear as 'environmentally sustainable' should be viewed as a positive move, combined with the launch of 'Great British Nuclear'.

The sector will need consistent and robust support from the government, as well as appropriate funding if we are to meet this goal.

Going nuclear

The facilitation of small modular reactors – an exciting emerging technology in development around the world – is another interesting promise. These smaller, simpler reactors will be easier to build while being just as efficient as larger ones. They can be installed in locations much closer to where the power is needed.

If we can help pioneer their development through the forthcoming competition, then we will be in a good position to attract investment and support sustainable growth. Proactive engagement with stakeholders – including local communities – will be key to dispelling myths about nuclear technology and making the case for rapid deployment.

We must also keep focus on driving

large-scale, forward-thinking energy schemes like the Coire Glas hydro project into delivery. This project, which was just given a £100m boost from SSE, could play an integral role in helping the UK reach net zero carbon emissions by vastly increasing Britain's electricity storage capacity.

We have long known that mitigation and adaptation must work hand in hand, particularly as the IPCC report acknowledges that adaptation measures reduce in effectiveness with increased warming.

Nature-based solutions

We need to look closely at nature-based solutions if we want to protect people's health and happiness in a more extreme environment, think bigger and be more inventive when protecting blue and green spaces.

Collaboration and knowledge sharing is central to better adaptation. We need to join up resilient and low carbon infrastructure services through cross sector and public/private partnerships. By doing so, we can minimise costs and maximise value for communities.

We must also focus on having a consenting regime in the UK which is fit for purpose. It needs to better consider new technologies and prioritise the delivery of co-ordinated major infrastructure. At the same time, we should support local government in upskilling themselves and ensure they are properly resourced so they can make informed, important decisions.

The IPCC's "report of reports" underscores the urgency we need, directly pointing to low-carbon buildings, better use of land, cleaner energy networks, and improved air quality as being fundamental solutions for us to grasp and pioneer.

The UK government must stand firm on its net zero ambitions and follow through quickly with commitments. The entire infrastructure community must act urgently as a critical player in a decarbonised and resilient future.



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