COP30: Climate change

Implications for policy & environmental science

October 2025



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About the Institution of Environmental Sciences

The Institution of Environmental Sciences (the IES) is at the forefront of uniting the environmental sciences around a shared goal: to work with speed, vision and expertise to solve the world's most pressing environmental challenges, together.

As the global professional membership body for environmental scientists, we support a diverse network of professionals all over the world – and at every stage of their education and careers – to connect, develop, progress and inspire.

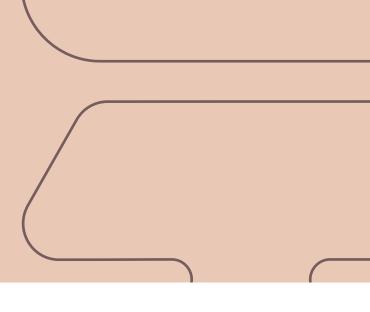
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About the Climate Action Community

The Climate Action Community is an IES Challenge-Led Community focused on championing the work of professionals in the environmental sciences in climate action, promoting the work of experts and evidence around climate change and driving change to ensure adaptation and mitigation measures are accurate, ambitious and achievable.

The Community champions interdisciplinary working and a systems approach to the interlinked crises of climate change, biodiversity loss and pollution.

Background



COP30 will be the 30th Conference of the Parties of the UN Framework Convention on Climate Change (UNFCCC), which will be held in Belém, Brazil in November 2025.

The summit will be a crucial platform for negotiations between governments, international organisations, and nongovernmental organisations, with the goal of increasing global action on climate change.

COP30 is seen as especially important, even compared to previous COPs. The increasing urgency of action has compounded the need for effective negotiations and COP30 also falls at a key stage in the process set out under the Paris Agreement, with countries due to set out new or updated Nationally-Determined Contributions (NDCs), effectively 'ratcheting-up' their commitments on climate change.

In the context of shifting global politics, COP30 will also need to meet the challenge of keeping the world agreed on tackling climate change, avoiding regression on existing commitments.

The key priorities set out by the COP30 presidency include: protecting multilateralism and the role of science; linking negotiations to tangible change for communities; and

accelerating implementation through structural mechanisms and delivery levers, particularly finance.

Following the critical response to last year's COP29, close attention will be on COP30 to deliver and convert climate ambitions into tangible action.

This briefing sets out the details of what to expect from COP30, the implications of the summit for environmental science, and how COP30 fits into the wider context of climate action on an international and national level.

"As the global consensus for ambitious climate action is attacked, COP30 must bring the world together."



Looking ahead: Priorities for COP30

COP30 will be a crucial climate summit. The call to move from ambition to delivery has never been stronger; yet outside forces are also placing ever greater pressure on the consensus for climate action.

The world stands on a tipping point between two futures: one where we deliver on the strong public mandate for climate action, or one where ambitions decline, setting us on track for 3+ degrees of warming.

Ramping up efforts is more urgent every year. Earth has begun to fall past the 'tipping points', like increasingly acidic oceans, which may not be possible to return from.

Crossing 1.5 degrees of warming is an especially concerning threshold. Even if we only cross it temporarily, it will still increase the frequency and intensity of extreme events like flooding, heatwaves, storms, and droughts.

COP30 will take place in Belém, Brazil, where the Amazon rainforest is on the front lines of many of these tipping points.

In the face of these risks, environmental science is an essential partner in the global dialogue on climate change.

To make the most of the short time we have to act, our messages need to be clear, actionable, and bring the world forwards, together.

The road to COP30

Ahead of COP30, the IES held four discussion events with environmental scientists and other experts, identifying the most pressing priorities for COP30 and climate action.

 Catch up with the recordings from each of the discussion events.

Nearly 400 professionals signed up to attend the events, representing voices from industry, research, government, NGOs, and the wider sector.

The outcome of those discussions was a position piece, 'Delivering change in a complex world', which sets out 10 key messages for COP30.

They are evidence-based and reflect a range of interdisciplinary expert and community perspectives.

These messages are aimed at everyone involved in climate action: policy makers at

COP30 who set the direction of travel, NGOs and campaigners working to spread a positive message for climate action, and our own members, who provide the evidence that underpins action, then helps to deliver it on the ground.

They are intended to inform discussions and outline an approach that strikes a careful balance between evidence-led integration and urgent, effective action.

To play our part, the IES will use these messages in the coming months as we support the environmental experts who are essential to climate action, and build connections that help to turn ideas into implementation.

Our key messages for COP30

1. Fight for a better future, not just to survive

Change is coming whether we want it or not, yet we can still choose the future we want. If we understand natural and social systems, we can transform them to forge the future people choose.

2. Facing complexity now makes the future simpler

Global problems are shaped globally — by people, economics, and the natural world. It's complicated, but we can understand it. Science and modelling can help us understand systems. AI and digital twins can explore the benefits of different futures to find the one we want. Green finance can get money flowing to reshape the system.

3. Focus on better services to create more value

Our resources are limited, but we can get more value from them with a more efficient.

economy. By showing the value that services can create, we can make people less reliant on buying products that use up resources.

4. Do it the right way, don't do it twice

One coordinated approach to climate, nature, and adaptation lets us set a clear vision and realise it more effectively and efficiently than many small, messy transitions. If we don't make all these changes together, we will need to make multiple transitions, with much higher costs.

5. Doing more costs less

Climate action costs much less than inaction. The cost of climate change to the UK is estimated to exceed 1% of GDP by 2045.

Research from the Green Finance Institute indicates that the UK could also be 12% poorer in the 2030s due to biodiversity loss and degradation, a bigger hit than either the 2008 financial crisis or COVID-19.

6. Work together, share successes

Climate change does not care about the borders we draw on maps. If we don't reduce emissions, everyone fails. If we succeed, we share in the benefits.

Success depends on partnership, because we need to coordinate to change the systems that are driving climate change.

7. Make it fair, make it just

Everyone will be affected by climate change, but not everyone will be affected equally. People should be part of deciding how the transition affects them. Each community should be a partner in developing local plans for a 'just transition'.

8. Plans need to add up, to deliver our ambitions

As well as a common vision, we need clear and coherent ways to deliver. To move private finance, investors need to know what they should put money towards, so policy needs to provide clear goals that add up to the change we need. To deliver climate action globally, communities need to know how they fit into the bigger picture.

9. Embrace an era of local climate leadership

The historic approach to climate action, led from the international level downwards, has not been enough to meet our goals. Local solutions depend on local context, so we should do more to empower communities to take effective action that benefits people locally.

10. Don't stop until it's done

Despite rhetoric, what we are doing is not lined up with our goals. The next stage is action, which must take place all year round, beyond COPs and across government, business, NGOs, and communities.

We cannot wait until every solution is perfect before we begin. We need to get on with delivering them, learning and improving as we go. The time to act is now.

Learn more about our key messages for COP30 in our position piece: 'Delivering change in a complex world'.

"Fight for a better future... work together... don't stop until it's done."

Joseph Lewis and Ethny Childs,
 Delivering change in a complex world



What happened at COP29?

Reflecting on last year's summit, COP29, the full range of issues featured on the agenda, albeit making limited progress on many issues.

The most significant outcome was an increased aspirational goal for finance, the New Collective Quantified Goal on Climate Finance (NCQG), which has received a mixed reception. COP29 did not produce a separate outcome declaration.

Financing action

Ahead of COP29, it was already being described as a 'finance COP'. Unsurprisingly, there was a substantial ambition to use the summit as a means to leverage finance for mitigation and adaptation in far greater amounts than previously.

At COP29, the New Collective Quantified Goal on Climate Finance (NCQG) was agreed, including:

 An increase in the goal for finance to developing countries from developed countries, from 100billion USD each year to 300billion USD, to be achieved by 2035. A further ambition to scale up finance to developing countries from public and private sources to 1.3trillion USD per year by 2035.

The NCQG was controversial, prompting the Alliance of Small Island States to walk out of negotiations, citing both the limited scale of the finance being discussed and the failure to achieve past finance goals.

Research published at the time suggested the need for far greater amounts of finance by emerging markets and developing countries, with 1trillion USD a year needed by 2025 and as much as 2.4trillion by 2030.

COP29 also saw the full operationalisation of the Loss and Damage Fund, completing the work of previous climate summits.

Further finance initiatives at COP29 included the Climate Finance Action Fund, seeking to catalyse public and private finance for climate mitigation, adaptation, and research; and the Baku Initiative for Climate Finance, Investment and Trade (BICFIT), which focused on the interactions between climate finance, investment and trade, with a view to promoting investment.

Mitigation

Despite increasing urgency, action around climate mitigation at COP29 was slow. In particular, negotiations around the transition away from fossil fuels did not see a significant rise in ambition.

Efforts to include stronger language in the Mitigation Work Programme agreed at COP26 were ultimately unsuccessful. Similarly, the inclusion of the Global Stocktake and NDCs within the Work Programme was not agreed by parties.

Despite the outcome of COP28, the UAE Consensus, which committed the world to transitioning 'away' from fossil fuels, COP29 did not deliver implementation plans to carry out the consensus, nor did it lead to a further commitment to phase out fossil fuels entirely.

More positively, COP29 saw the finalisation of technical rules relating to carbon markets under Article 6 of the Paris Agreement.

These rules have been a contentious point of negotiation in the past and this agreement now lays the foundations for international coordination to reach national emissions reduction targets. However, carbon trading cannot become a substitute for effective mitigation of emissions.

One focus area for energy at COP29 was connectivity and storage, aiming to address the infrastructure requirements needed to support decarbonised economies around the world.

COP29 saw the launch of the Global Energy Storage and Grids Pledge, aimed at agreeing a collective goal of deploying 1,500 GW of

energy storage in the power sector globally by 2030.

There were also further attempts to generate action through the COP29 Hydrogen Declaration and the Pledge on Green Energy Zones and Corridors.

Even in the absence of significant progress on energy decarbonisation at COP29, agreements and funding for storage and connectivity will be critical to facilitating more ambitious commitments at COP30, so this year's summit must follow through on that opportunity.

At COP29, some countries launched new Nationally-Determined Contributions (NDCs), including the UK and Brazil.

Countries are expected to 'ratchet-up' their NDCs in 2025 ahead of COP30 as part of commitments under the Paris Agreement, so last year's early updates must be followed by more countries increasing the ambition of their commitments.

Adaptation and resilience

Adaptation and resilience were a key issue at COP29. Given the urgent need for climate resilience, adaptation finance needs to be more in line with finance for climate mitigation, though both require significant further investment.

Before COP29, the Presidency had already committed to several relevant initiatives, including the Baku Initiative on Human Development for Climate Resilience. Multisectoral Actions Pathways (MAP) for Resilient and Healthy Cities, and Water for Climate Action, which were each intended to be progressed either through the

outcome declaration or separately.

During COP29, the adaptation agenda developed further:

- Ahead of COP29, UNEP's Adaptation Gap Report 2024 was published
- The High-Level Dialogue on National Adaptation Plans aimed to increase discussions about adaptation planning
- Provision to establish support for the least developed countries in implementing National Adaptation Plans
- The launch of the Baku Adaptation Road Map through the High-Level Dialogue, seeking to improve the delivery of the agreements made at COP28

Ultimately, progress was limited, and the lack of a final outcome declaration left many of these questions unanswered.

After the progress made at COP27 and COP28, it was hoped that negotiations could go beyond traditional approaches to climate resilience, including greater consideration of food security, energy security, and other risks.

COP29 missed the critical opportunity to embed a systems approach to adaptation, recognising the potential for systemic risk vulnerabilities or embedded risks, such as over-reliance on electrification and the associated 'single points of failure'.

Environmental justice

Environmental justice was also a key consideration, particularly in the context of conversations around loss and damage.

Despite being a high priority, COP29 did not sufficiently deliver on key priorities for climate justice.

Loss and damage funding was not included in the NCQG goal for climate finance, despite recognition that funding for loss and damage is currently insufficient.

The negotiations around the NCQG were also seen as a failure of climate justice, with concerns that some of the most vulnerable countries were unable to participate as negotiations over-ran.

COP29 also failed to reach an agreement on the just transition work programme, which remains a negotiating priority at COP30.

The triple crisis

2024 was a difficult year for global summits, after negotiations at COP16 for the Convention on Biological Diversity failed to reach an outcome and COP29 failed to deliver for climate change.

The outcome of COP16 increased pressure to bring together global action on climate change, biodiversity loss, and other interlinked environmental crises.

Despite this pressure, COP29 did not significantly improve the links between global action on climate change and biodiversity.

Inconclusive negotiations at COP16, COP29, and on the prospective Treaty to End Plastic Pollution have left the future of an integrated approach in doubt.

The Kunming-Montreal Global Biodiversity Framework agreed at COP15 and the decision to establish a science-policy panel on chemicals and pollution were both substantial developments towards addressing environmental challenges, yet all three aspects of the triple crisis still require more ambitious action.

Other outcomes of COP29

Beyond the primary negotiations between member states, COP29 also supported the development of bilateral agreements and other programmes of work.

Some further key developments included:

- The completion of the Enhanced Transparency Framework (ETF) reporting tools, aiming to provide training and technical support to developing countries, alongside further efforts to promote transparency and reporting at the global level
- The launch of the Net Zero Export Credit Agencies Alliance first target setting protocol, aimed at improving accountability around net zero exports
- The 2024 Global Yearbook of Climate Action, launched by the High-Level Champions under the Marrakech Partnership
- The launch of the inaugural report of the Forum for Insurance Transition to Net Zero, which highlighted the importance of specific guidance for the insurance industry to support the global transition

Following controversy around the NCQG and limited action on climate mitigation, questions have been raised about the appropriateness of countries with substantial fossil fuel industries hosting climate summits.

With 2030 drawing ever closer, COP30 is another pivotal moment at which the UNFCCC and participating countries must find new ways to make it possible for ambitious climate negotiations to continue.

For more information:

- IES Briefing on COP29
- New Collective Quantified Goal on Climate Finance
- UAE Consensus on transitioning away from fossil fuels
- COP29 Presidential Action Letter
- Kunming-Montreal Global Biodiversity Framework
- IES Briefing on COP16 of the Convention on Biological Diversity
- UNEP Adaptation Gap Report 2024
- World Resources Institute NDC Tracker
- Transforming the planet: Our vision for the future of environmental science
- Priorities for the UK Government, 2024-2029 (including key actions on climate change)

"COP29 missed the critical opportunity to embed a systems approach to adaptation."



Recap: Climate summits from 2021 to 2024

COP26 Glasgow

Ahead of COP26 in Glasgow (held in 2021), there was a substantial drive to increase national commitments through the 'ratcheting-up' mechanism of the Paris Agreement.

Each signatory country makes such commitments through its Nationally-Determined Contribution (NDC), which sets out the ambition and commitment of each country to mitigate climate change and reduce its own contribution to greenhouse gas emissions.

The result of the COP26 rise in NDC ambitions was significant:

- The projected temperature rise above pre-industrial levels shifted from more than 3 degrees to +2.4 degrees (in Celsius) through policies due to be set in place by 2030.
- Targets beyond 2030 were predicted to lower the projected rise in temperatures to +2.1 degrees.
- Including ambitions which had been stated without plans for delivery

decreased that projection even further, potentially lowering expected temperature rises to +1.8 degrees.

However, note that subsequent analysis has shown less positive progress. For any of those targets to be met, the NDCs and associated pledges would need to be implemented in full.

That implementation has not yet taken place, so considerable doubt remains about the world's ability to limit the rise in temperatures to 1.5 degrees above pre-industrial levels.

Subsequent research indicates that it will be necessary to reach net zero by 2034 to prevent global temperatures crossing that threshold.

COP26 also saw a range of multilateral agreements, such as the Glasgow Leaders' Declaration on Forests and Land Use, the Global Forest Finance Pledge, and the Methane Pledge to cut emissions by 30% by 2030.

The summit also launched the Glasgow Financial Alliance for Net Zero, which was designed to align more than 100 trillion USD towards investments in climate action.

Ultimately, the alliance has faced a number of challenges linked to the definitions and taxonomy underpinning those investments, which has somewhat undermined its capacity to achieve its stated impacts.

For more information:

- IES COP26 Wrap-up
- International Energy Agency: Net Zero Roadmap
- Research: size and uncertainty of remaining carbon budgets
- IPCC Special Report on Global Warming of 1.5°c
- UNEP Emissions Gap Report 2023

COP27 Sharm El-Sheikh

While COP26 raised the possibility of annual increases to NDC commitments, COP27 ultimately failed to continue the momentum of COP26.

There was only a limited push by countries to increase NDC ambitions, leading to minimal progress on climate mitigation.

However, there were important developments on two significant issues:

- 1. Loss and damage: where meaningful conversations began to take place, with countries agreeing to establish a loss and damage fund. An adequate response to loss and damage is likely to be a prerequisite for future agreements about sustainable development and mitigation, so was an important step towards setting the stage for future negotiations.
- 2. Adaptation: which is still significantly

under-resourced and under-appreciated, both compared to the overall adaptation needs, as well as compared to mitigation. COP27 saw an increase in funding and action on adaptation through agreements such as the Sharm El-Sheikh Adaptation Agenda and the Global Shield Against Climate Risks.

2022 also saw the end of the IPCC's Sixth Assessment cycle, with reports published by the science-policy panel's three working groups, and a final Synthesis Report published in 2023.

The reports cover the physical science basis for climate change, adaptation to the effects of climate change and the need for resilience, and mitigation of climate change, as well as analysis of what works, what doesn't, and how much different options are likely to cost.

For more information:

- IES COP27 Wrap-up
- IES UK Climate Commitments Gap Analysis
- IES Analysis on IPCC AR6 Synthesis Report

COP28 Dubai

Negotiations at COP28 faced a significant degree of criticism, partly owing to the UAE's role as host, but they were ultimately able to reach a consensus on a global transition away from fossil fuels.

This final agreement has been viewed by many as an important step towards meeting obligations under the Paris Agreement.

Despite this positive progress, further action is still needed to get the world back on track to address climate change.

In particular, the consensus does not amount to a commitment to phase out the use of fossil fuels completely.

As highlighted by the COP28 President, the true test of the consensus will be whether it is implemented in practice by national governments, prompting a just and urgent transition.

Some of the other outcomes of discussions at COP28 included:

- The conclusion of the first Global Stocktake to assess the world's progress towards addressing climate change
- The Food and Agriculture Organization (FAO)'s Roadmap to 1.5
- The Buildings Breakthrough (as part of the Breakthrough Agenda) to link business, governments, and civil society to support the transition to climate resilient and near-zero emissions buildings as a global norm by 2030
- The Global Renewables and Energy Efficiency Pledge to triple the world's renewable energy generation capacity by 2030

- Negotiations towards an 'Adaptation Playbook' to support the financing and roll-out of the Global Goal on Adaptation
- Delivery of an agreement on the Loss and Damage Fund to provide supporting finance for the developing countries most vulnerable to historic climate change, with 700million USD of funding committed at COP28
- Initial steps towards a work programme on delivering a just transition

Discussions around climate adaptation at COP28 managed to secure a modest increase in finance, though far greater action was anticipated at COP29 in order to include considerations around food security, energy security, and other risks.

For more information:

- IES briefing on COP28
- COP28's summary of global climate action during the summit
- Kunming-Montreal Global Biodiversity Framework
- Transforming the planet: Our vision for the future of environmental science

In the UK: the latest climate change developments

In the UK, climate policy is currently subject to a degree of uncertainty. Following the change of government in 2024, policy around climate change has been subject to increasing debate and politicisation.

Meanwhile, the Government is undertaking a review of England's Environmental Improvement Plan (EIP) and related policies, including its approach to land use and nature-friendly farming. All of these developments have implications for the UK's approach to climate change.

Mission for clean energy

A large amount of the Government's policy agenda around the environment has focused on energy system decarbonisation, through its 'Mission to make Britain a clean energy superpower'.

The five key actions attached to the mission are:

- 'Set up Great British Energy to cut bills for good'
- 'Energy independence from dictators like Putin'

- '650,000 new high-quality jobs'
 - 'Warmer homes to slash fuel poverty'
- 'Water companies forced to clean up our rivers'

In its 2024 election manifesto, the Government gave more details on what the mission would mean in practice.

Recognising the economic opportunities associated with renewable energy, the manifesto committed to:

- "shape markets and use public investment to crowd in private funding"
- "double onshore wind, triple solar power, and quadruple offshore wind by 2030"
- "tackle the ... nature emergency, including the unforgivable pollution of our rivers and seas"
- "ensure the long-term security of the [nuclear] sector, extending the lifetime of existing plants, and ... new nuclear power stations, such as Sizewell C and Small Modular Reactors"

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- "maintain a strategic reserve of gas power stations ... [and] ensure a phased and responsible transition in the North Sea"
- "not issue new licences to explore new fields", though the manifesto also notes that "oil and gas production in the North Sea will be with us for decades to come"
- "close the loopholes in the windfall tax on oil and gas companies ... [and] extend the sunset clause in the Energy Profits Levy until the end of the next parliament"
- "strengthen the regulator to ensure it can hold companies to account for wrongdoing, require higher standards of performance, and ensure there is automatic customer compensation for failure"
- "work with industry to upgrade our national transmission infrastructure"
- "directly invest in ports, hydrogen and industrial clusters" through the National Wealth Fund
- "invest an extra £6.6 billion over the next parliament ... to upgrade five million homes"
- "the introduction of a carbon border adjustment mechanism"

For further information on the Government's commitments on climate, nature, and the environment, see the Labour Party's 2024 election manifesto.

In December 2024, Prime Minister Keir Starmer gave a speech setting out 'milestones' for each of the missions, which are functionally non-binding targets. For the clean energy mission, the milestone is to 'put the country on track for at least 95% clean power by 2030'.

Great British Energy

The primary mechanism for delivering the Government's energy decarbonisation objectives is Great British Energy, a new publicly-owned energy company, primarily working with the Department for Energy Security and Net Zero.

The Government has said that GB Energy will:

- "partner with industry and trade unions to deliver clean power by co-investing in leading technologies"
- "support capital-intensive projects; and will deploy local energy production"
- "capitalise Great British Energy with £8.3 billion, over the next parliament" (in the Autumn Budget 2024, GB Energy was allocated £125 million, but the Chancellor committed to providing the initially pledged £8.3 billion in subsequent years)
- "deploy more distributed production capacity through our Local Power Plan"

Though the government has changed, existing policy is still relevant in many cases, including the Net Zero Strategy published in 2021.

It is expected that the Government may make revisions to the Strategy to better reflect its new approach and its revised NDC.

The UK at COP29

Although many international heads of state did not attend COP29, or had only a minimal presence, the UK Government was relatively active during the summit, including through a speech by the Prime Minister.

During that speech, the UK announced its new Nationally-Determined Contribution (NDC): to cut UK emissions 81% (compared to 1990 levels) by 2035.

The previous UK NDC was to reduce emissions by 68% by 2030, so the new target should be viewed as a longer-term continuation, rather than an outright replacement of the previous objective.

Alongside the announcement at COP29, the UK Energy Secretary, Ed Miliband, gave a statement in Parliament, setting out further details of the target and highlighting the role of the Climate Change Committee and the alignment of the new target with the UK's 6th carbon budget and the ambition to achieve net zero by 2050.

Ultimately, the UK's ability to achieve the new target will depend on how the Government plans to deliver it in practice. The Energy Secretary noted that these plans will be officially published ahead of the UNFCCC's deadline in February 2025.

For now, careful scrutiny and robust evidence will both be critical to ensure that the UK is able to meet its new international obligations.

At COP29, the UK also announced that it had become a signatory to the Coalition on Phasing Out Fossil Fuel Incentives Including Subsidies (COFFIS), which seeks to improve transparency and move towards a phaseout of subsidies for fossil fuels.

Another priority for the UK Government at COP29 was to highlight the role of nature in climate discussions. Nature Minister Mary Creagh attended COP29 and announced funding for projects to protect the ocean from climate change and biodiversity loss.

The UK delegation was also joined by the new Special Representative for Climate, Rachel Kyte, and the Special Representative for Nature, Ruth Davis.

Is the UK on track?

The UK has historically succeeded in meeting its climate targets, and although much more needs to be done, the UK still has an important role as a leading nation on climate change.

The Climate Change Committee reported in June 2025 that the UK is "among a leading group of economies demonstrating consistent and sustained decarbonisation".

However, it also recognised that "continued reliance on fossil fuels undermines UK energy security" and that for 39% of the UK's plans to reach its 2030 NDC, "there are either significant risks, or insufficient or unquantified plans".

If the Government can set out a robust delivery plan for meeting the new NDC, it should bring the UK back on track.

Last year, the High Court ruled that the (previous) Government's Carbon Budget Delivery Plan was insufficient to demonstrate that the UK's commitments under its carbon budgets would be delivered.

A revised Carbon Budget and growth delivery plan was published in October

2025, with more details of how policies will 'add up' and further analysis of the risks associated with delivering policies.

Find out more in our September 2025 article on the Carbon Budget Delivery Plan.

UK climate resilience

Adaptation and resilience also require a significant degree of action to bring the UK back on track. As recent weather patterns have made the consequences of climate change more immediate than ever, the need to improve UK resilience is imperative.

The Climate Change Committee's 2023 report on adaptation concluded that "the Second National Adaptation Programme has not adequately prepared the UK for climate change."

In response, the Third National Adaptation Programme began in 2023 and will run until 2028, informed by the 2023 National Risk Register.

The period covered by the Programme will be critical for increasing UK resilience, which will require adequate funding and extensive support for implementation.

The UN Environment Programme's Adaptation Gap Report 2024 provides a global perspective on the current state of adaptation to climate change.

For an overview of the current state of the UK's policy on climate change, as well as the key actions needed to keep the UK on track, you can read the priorities for the UK Government published by the IES ahead of the 2024 general election.

Our top recommendations on climate change included:

- Commit to a 'transformative change' approach to reshaping unsustainable systems, addressing climate change, biodiversity loss, and environmental pollution together
- 2. Take an integrated approach to climate adaptation alongside climate mitigation, bringing resilience funding and support in line with the scale of the UK's adaptation challenge
- 3. Deliver ambitious action to mitigate UK emissions, closing the gap between current commitments and a plan aligned with 1.5°c, with explicit implementation plans
- 4. Work with communities and NGOs on a 'just transition' away from fossil fuels which fairly distributes costs and benefits so that no communities are left behind
- 5. Work with businesses to unlock private finance and drive corporate sustainability that supports a nature-positive future

The full report sets out how those recommendations can deliver the Government's missions and how they could be delivered in practice, which additional advice on implementing each policy.

If you require further information about these recommendations, or about the state of UK climate policy, please contact Joseph Lewis, IES Head of Policy, at joseph@the-ies.org.

"The Government must set out a robust delivery plan for meeting its commitment to cut emissions 81% by 2035."



Frequently asked questions and key concepts

How certain is the science behind climate change?

The IPCC Working Group I Report outlines the physical science underpinning climate change (and includes a Summary for Policymakers and Frequently Asked Questions). The IPCC reports directly speak to the confidence behind each scientific claim.

A more general environmental perspective which addresses the need for transformative change is provided in the UN Environment Programme's 6th Global Environment Outlook.

The role of human-induced climate change in increased vulnerability and risk is covered in IPCC Working Group II's Report, and the extent of our mitigation against climate change is covered in IPCC Working Group III's Report, both of which express the confidence behind each scientific claim.

For a complete overview of the latest climate science, see the full Synthesis Report from the IPCC, and its Summary for Policymakers.

What could the future look like?

Presenting a positive vision of the future is essential to addressing the concerns of those who are worried about climate change.

The IPPR think tank has created a summary of case studies on 'just transition' and an analysis of the opportunities for communities.

More information on the risks if we do not act to address climate change is available in the Climate Change Committee's 2022 Climate Change Risk Assessment and the UK Government's 2023 National Risk Register.

The IES has set out an evidence-informed vision for the future of environmental science, supporting the transformation towards a sustainable society.

Where do we need further action?

The report from IPCC Working Group III evaluates mitigation efforts so far. The 2025

CCC Progress Report also identifies gaps in current UK climate plans.

In 2024, the IES set out priorities for the UK Government between 2024 and 2029, including for climate action in the UK.

On the global level, the IES position statement on COP30 sets out clear messages for action, and our report 'Transforming the Planet' sets out a vision for what still needs to happen to achieve a sustainable future for humanity.

Is there a trade-off between the economy and climate action?

It is possible to address climate change while securing sustainable development and multiple social and economic benefits.

The UK Government's Independent Review of Net Zero described net zero as 'the economic opportunity of the 21st Century'.

Both the Imperial Grantham Institute's analysis on climate change and the economy, and New Climate Economy's report on 'accelerating climate action for inclusive economic growth' provide further evidence to support that perspective.

The World Bank's Climate Change Action
Plan acknowledges that "trade-offs ...
including transition costs ... can be
reduced" but that "The cost of not
addressing climate change is already
immense and will only get more expensive."

By comparison, Swiss Re reports on the costs to the global economy of inaction on climate change.

The 2006 Stern Review on the Economics of Climate Change also provides useful context, though note that the situation and our understanding has significantly developed over the past 15 years.

In its 2024 message to the new UK Government, the IES set out priority recommendations to deliver an approach to environmental crises which will lead to thriving people, a healthy economy, and a flourishing environment.

Key concepts

Mitigation

Action to slow, reduce, stop, prevent, or reverse climate change. Typically mitigation involves addressing the sources of climate change, including by reducing carbon emissions.

Find out more about climate mitigation.

Adaptation

Action to prepare for the effects of climate change, such as increased resilience against consequences of climate change including flood risk, food security, energy security, and the potential effects of other climate vulnerabilities.

Find out more about climate adaptation.

Vulnerability

The extent of exposure to the risks created by climate change. For example, a community is likely to be vulnerable to water stress created by climate change if it has limited access to water, or if it has poor resilience against the consequences of water stress.

Loss and damage

'Loss and damage' is a phrase used to refer to the harms caused by human-caused climate change, many of which have already taken place or can no longer be prevented.

These can include loss of lives, livelihoods, territory, ecosystem services, social and cultural identity, or any other financial or non-financial losses caused by the impacts of climate change.

Further action is still needed to properly address loss and damage, including addressing the extent to which the historically most-polluting nations are responsible for reparations or financial restitution.

UNFCCC

The UN Framework Convention on Climate Change (UNFCCC) is an international agreement which commits signatory governments to reducing greenhouse gas emissions to address climate change (and is also the body of the United Nations responsible for enacting the Convention).

With the support of the COP presidency host governments, the UNFCCC is responsible for organising COP30 and similar climate summits.

COP

Conferences of the Parties (COPs) are annual meetings of the UNFCCC held to support negotiations between parties to the Convention and coordinate ongoing international action on climate change.

IPCC

The Intergovernmental Panel on Climate Change (IPCC) is a body of the United Nations which brings together expertise from around the world to provide objective and comprehensive information about climate change.

The IPCC's sixth assessment report, published in 2023, comprises reports from three working groups on:

- The science behind the current state of the climate
- 2. Adaptation and vulnerability
- 3. Mitigation

CCC

The Climate Change Committee (CCC) is the UK's independent body responsible for advising the UK on climate change and emissions reduction targets.

It was established by the Climate Change Act and reports to Parliament on climate mitigation and adaptation.



Find out more: Engaging with policy makers

Our IES member briefing note: 'Influencing the UK Parliament', first published in 2011 and most recently re-issued in 2025, provides an overview of influencing Parliament and legislation.

The IES publishes a series of briefings, 'introduction to environmental policy', to introduce IES members to effective policy engagement:

- Policy analysis and awareness
- Evidence-informed policy making
- Cost-benefit analysis for policy
- Cross-departmental policy

The IES has also produced a collection of policy engagement case studies: 'Speaking up for science'.

Our popular policy training programme has been updated to include on-demand training for members. Regular training sessions are also available for sign-ups on the IES website.

Other relevant legislation & regulations

Find out more about existing legislation & policy on this topic:

- Environmental Improvement Plan
- UN Framework Convention on Climate Change
- CCC Progress Report 2025
- Climate Change Act 2008
- UK Net Zero Strategy
- · Carbon Budget and growth delivery plan

More climate change content and networks from the IES:

- Delivering change in a complex world
- Transforming the planet: Our vision for the future of environmental science
- Climate Action Community
- Environmental Policy Implementation Community (EPIC)

- IES ROAD to COP30 Videos Playlist
- Priorities for the UK Government, 2024-2029

More analysis and insights are available on the IES website and YouTube channel.

How can you engage?

In the UK, many issues of environmental policy are devolved to national administrations. If you live in Scotland, you can contact your Member of Scottish Parliament or learn more about influencing Scottish legislation.

If you live in Wales, you can contact your Member of Senedd Cymru or learn more about the business of the Senedd.

If you live in Northern Ireland, you can contact your local Member of the Legislative Assembly or learn more about the Assembly's work.

The IES produces a regulatory bulletin to keep members updated on developments in policy, Essential Environment.

Our latest analysis on climate change includes:

- Roadmaps & Carbon Budget Delivery Plan
- CCC report and Climate Action Week

Is there a policy-related topic which you would like to see covered by the IES?

Get in touch with Joseph Lewis (joseph@ the-ies.org) to let us know your thoughts on potential topics for future briefings, or with your suggestions for other content.

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