

Delivering change in a complex world

Key messages from environmental scientists for COP30 of the UNFCCC

October 2025



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Sciences

Contents

3	Acknowledgements
4	Introduction
6	Key messages for COP30
6	Fight for a better future, not just to survive
7	Facing complexity now makes the future simpler
8	Focus on better services to create more value
9	Do it the right way, don't do it twice
10	Doing more costs less
11	Work together, share successes
12	Make it fair, make it just
13	Plans need to add up, to deliver our ambitions
14	Embrace an era of local climate leadership
15	Don't stop until it's done
16	Your COP30 agenda
18	Our voice at COP30
20	Conclusion

Acknowledgements

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Acknowledgements: The IES would like to thank all those who have contributed to the expanding body of knowledge in environmental science and professional practice.

Special thanks go to the following individuals who helped with our Road to COP30 event series, which was essential to producing this report:

- Justin Bishop
- Sarah Brownlie
- Colin Church
- Alice Doyle
- Kripa Dwarakanath
- Robbie Epsom
- Dan Lee
- Craig Love
- Denise Okpala
- Uchenna Onyeizu
- Brigette Reid
- Xiangyu Sheng
- Simon Spooner

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.

Our Climate Action Community champions professionals engaged in climate action, promoting experts and evidence to drive change and ensure adaptation and mitigation measures are ambitious and achievable.

The Community takes an interdisciplinary, systems approach to the linked crises of climate change, biodiversity loss, and pollution.

Registered charity no. 277611

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Introduction

COP30 is taking place in November 2025 and will be a crucial summit, setting the tone of climate action for the coming years.

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.

While UN summits like COP30 have faced rising scrutiny for their failure to make change a reality, they have a pivotal role in setting the agenda. COP30 needs to reinforce the consensus and defend the pathway to a more sustainable world.

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

The **wipeout of warm-water reefs** is another sign that change has already arrived. If we want to control what the future looks like, we need to be ready to do more.

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.

Our key messages

The IES has a unique place in these discussions: we bring together researchers, practitioners, and policy makers to discuss environmental challenges and how we can solve them.

By listening to those voices, we have identified what we believe are the most important messages for COP30:

1. Fight for a better future, not just to survive
2. Facing complexity now makes the future simpler
3. Focus on better services to create more value
4. Do it the right way, don't do it twice
5. Doing more costs less
6. Work together, share successes
7. Make it fair, make it just
8. Plans need to add up, to deliver our ambitions
9. Embrace an era of local climate leadership
10. Don't stop until it's done

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 hope is that the world can make the most of COP30. Urgency grows only greater with time, so we cannot squander these years of acute possibility, where the chance to make a difference is still open to us.

Throughout this statement, we set out why these messages matter, what they mean in practice, and how COP30 can help to support their delivery.



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

- **People need a future they can believe in**

Change is coming whether we want it or not, yet we can still choose the future we want. To motivate people, we need a shared positive vision of a better future beyond the climate transition. To secure investment, we need a clear image of the value that climate action can create.

- **Transformative change is the answer**

We know we need to adapt to climate change today, so let's use that as a chance to think about the future we want to create. If we understand natural and social systems, we can transform them to forge the future people choose. Any effective change means working at the systems level, so we cannot settle for unambitious action or isolated solutions.

- **Demonstrate value to accelerate change**

When people can clearly see how action will make their lives better, they will do what it takes to make it happen. Money moves when people talk, so showing investors the value that can be created through climate adaptation and mitigation is crucial. Evidence of what works will speed up private finance from investors who do not want to be left behind.

- **An evidence-based vision for a better world**

Our **vision for the future of environmental science** shows how science can bring the world together to create a future with thriving people, a healthy economy, and a flourishing environment.



2. Facing complexity now makes the future simpler

- **Isolated answers won't change a complex world**

Global problems are shaped globally — by people, economics, and the natural world. It's complicated, but we can understand it. The state of nature shapes the economy, which affects people's lives, and how they live those lives shapes the environment. We need to work with that complexity, not hide from it.

- **A 'systems of systems' approach: dealing with a complex world can be made simpler**

Systems are powerful and complex, so by understanding systems and how they connect, we can harness their power to make the world better. If we are ambitious, we can reimagine these systems so that they give us multiple benefits: a healthy and less wasteful economy, sustainable development, a fair and just transition, and a flourishing environment.

- **Even if it's complex, we know how to do 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.

- **Everything we want to achieve is connected**

The **IPBES Nexus Assessment** shows that human health, food security, and clean water are all linked to biodiversity and sustainable development.



3. Focus on better services to create more value

- **If we consume too much now, nothing will be left for future generations**

Our resources are limited, but we can get more value from them with a more efficient economy. A circular economy gets more value out of what we use. Without better resource security, future generations will have less and will be more reliant on fragile or harmful supply chains.

- **Climate action can help create better services**

People need better services, not more useless stuff. By showing the value that services can create, we can make people less reliant on buying products that use up resources. With a new approach to value, we can improve lives without giving up more than we can afford to lose.

- **Give people a stake, give communities a share**

Projects and policy makers should work with communities. Giving local people decision making power lets them decide what is valuable to them. It also gives them a stake in success, so they benefit from more efficient and better services.

- **Getting more value by using less resources**

“**Doughnut Economics**” is a way to think about what we value in our economy and how we can achieve it, by living between the upper limit of our resources and the lower limit of what we need to live good lives.



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

- **Change is coming, so we need to control it**

Change will happen whether we want it or not: either unchecked climate change, or transformative change. If we don't adapt, we face extreme consequences. If we don't mitigate emissions, the impacts will get even worse. We also face a nature emergency, which will affect our food security and global economies. If change must happen, we should choose how.

- **Joined-up decisions are more efficient**

If we don't make all these changes together, we will need to make multiple transitions, with much higher costs. 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.

- **Nature-based solutions give us the best of both**

Nature is critical infrastructure for resilience: it can hold back floods, improve resilience for food security, and sets the foundation for our response to crisis. When we design our responses using natural solutions, we get more done. Funding these solutions is a priority.

- **Reframing our relationship with nature**

We need a relationship with nature that recognises all the ways people **gain value from nature**. If we don't value nature in the ways we measure success, we will lose out on the chance to gain multiple benefits from the change that we know is coming.



5. Doing more costs less

- **If we don't act, we will pay the price**

Climate action costs much less than inaction. The World Economic Forum CEO guide on '**the cost of inaction**' is clear: "inaction comes at a cost ... early movers are already realising tangible benefits."

These costs outstrip the cost of action. For example, the UK's **climate change risk assessment** identified dozens of risks, including eight that could each cost the UK over £1billion per year by 2050. 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.

- **The transition can bring immense value**

The finance gap is big: the cheapest road forward may require at least \$6trillion USD by the 2030s (or more if we don't act quickly enough). Some can come from governments or multilateral banks, yet we also need much more private finance. The value created will be substantial: early investments can get ahead of the next industrial revolution and cover the future costs of resilience at the same time.

- **How can we get money into the game?**

Actionable opportunities to invest are essential, especially for closing the **adaptation finance gap**. Investors want clear impact, so interdisciplinary links between science and finance will make projects stand out.



6. Work together, share successes

- **For global problems, we succeed or fail together**

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.

- **Global partnership for climate action**

Moving to delivery cannot isolate us from the global networks brought together at international summits. Effective action relies on strong partnerships across governments, NGOs, and businesses to share the burden of action and move forwards from a position of shared strength.

- **Not just consultation, co-design and delivery**

When we work together on solutions, we all have a stake in their success. We can achieve more when we bring wide groups of people together at an early stage, designing solutions together and sharing the task of delivering them. When we create broad partnerships, we also create options, such as blended finance to support delivery.

- **Part of a shared effort: 'Mutirão COP30'**

The COP30 Presidency's Mutirão COP30 is a continuous call for mobilisation as part of a major global effort to address climate change. It sets out an **approach to organising** where we can all achieve more together than any of us could alone.



7. Make it fair, make it just

- **If solutions are not fair, they won't last long**

Everyone will be affected by climate change, but not everyone will be affected equally. Some people have higher transition costs, and some have higher adaptation costs. We are all responsible for making solutions to climate change fair, so we should share the costs appropriately.

- **Fair answers are designed together and locally**

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': one that ensures no one is left behind or treated unfairly as we work towards a more sustainable society. When people are given a stake in their future, they will help to make it a reality.

- **To make it fair, we need to fix past mistakes**

We need to accept that we have not always done this the right way, so we should make things right now. The global community should pay the cost of loss and damages already caused by climate change. Indigenous and local communities should be partners in the transition, not just observers, and fairness should be a key measure of our success.

- **We can make a fair and just transition happen**

Scotland's **Just Transition Commission** provides case studies that show how to deliver a just transition in practice.



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

- **Without clear plans, we cannot deliver**

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.

- **Certainty removes the risk from action**

If governments agree ambitious targets for reducing emissions and securing public and private finance, it removes the risk for investors. With scientific evidence and clear policy guidance, high-integrity carbon and nature markets can provide certainty that early investments will pay off.

- **A clear, consistent mandate gets money moving**

‘Collective investment vehicles’ and project networks like Rebuilding Nature’s **Strategic Nature Network** show investors where to put money to make an impact and support multiple benefits. Consistent, predictable policy and a shared ‘**green taxonomy**’ help everyone know what counts as a green investment, so we can all move in the same direction.

- **Where is the gap in global ambitions?**

The UN’s **Emissions Gap Report** shows where global plans aren’t adding up. We need to ensure what we deliver lines up with our ambitions.



9. Embrace an era of local climate leadership

- **Top-down action has stalled local 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.

- **Trust communities to take the lead**

If we don't work with local communities, answers to climate change won't take local context into account, so they won't be sensible and they won't be fair. We should empower people to design and deliver their own solutions, giving communities funding, knowledge, and trust. People need to feel they have permission and support to get on with delivering fair, sensible answers in their local community.

- **Rebuilding the link from global to local**

Delivering countries' international commitments, their Nationally-Determined Contributions (NDCs), requires local action, so they should be designed with local input: local authorities need a formal role in the process. Communities should also make their own local NDCs to set out how the transition in each local area can add up to our global targets.

- **Giving communities and cities a stake**

As a case study, the UK's **Climate Change Committee** has highlighted the power of local authorities as partners for delivering climate action.



10. Don't stop until it's done

- **The era of long conversations needs to end**

Climate summits have been an essential part of building a global consensus, yet they are now giving diminishing returns. 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. The time to act is now.

- **Don't wait for perfection, make change happen**

The evidence is clear: we need to act. 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. We should raise our ambitions whenever we can, but it cannot get in the way of delivering change.

- **Every day of the year is delivery day**

What we want to achieve cannot be done alone. Effective delivery requires collaboration and knowledge sharing, so we need spaces and ways to connect people at a local level, supporting work on the ground. Every action has value, even if it doesn't solve the entire problem, so we all have something to contribute as we build connections for action.

- **Building networks to deliver on climate**

Our **Environmental Policy Implementation Community** (EPIC) champions environmental delivery, especially at a local level. Guidance like EPIC's **guide to local authority delivery** supports implementation, every day.

Your COP30 Agenda

Major climate summits are constantly in motion, full of discussions, side events, and major announcements.

To help you get the most of COP30, the IES has highlighted key discussion points for each day of the agenda, as well as what you can push for to make the biggest impact on every day of the conference.

Breaking down the COP30 thematic agenda, what can you do each day to support effective climate action in line with our key messages?

10th-11th November

- **Thematic agenda:** Adaptation, Cities, Infrastructure, Water, Waste, Local Governments, Bioeconomy, Circular Economy, Science, Technology, and Artificial Intelligence
- **What to talk about:** How can we support integrated solutions throughout COP30, making adaptation and resilience part of the discussion from the start?
- **What to push for:** Clear ambitious purpose at the heart of negotiations, producing a positive vision for transformative change, as science informs the discussion.

12th-13th November

- **Thematic agenda:** Health, Jobs, Education, Culture, Justice and human rights, Information integrity, and Workers; Global Ethical Stocktake
- **What to talk about:** How can services help us reimagine value? How can we achieve sustainable development and social needs without taking away from future generations?
- **What to push for:** Push for fairness, equity, and justice to be part of all conversations at COP30.

14th-15th November

- **Thematic agenda:** Systems transformation across Energy, Industry, Transport, Trade, Finance, Carbon markets, and Non-CO₂ gases
- **What to talk about:** How can we reimagine these core systems? How can a systems approach help the transition?
- **What to push for:** More public and private finance, because doing more costs less and climate finance can bring big value.

16th November

- **Thematic agenda:** Rest day
- **What to talk about:** Taking the brief pause to ask whether the commitments all add up so far: is there a clear transition pathway ahead?
- **What to push for:** Turning all the discussions and pledges so far into delivery commitments in the last week of COP30.

17th-18th November

- **Thematic agenda:** Forests, Oceans, and Biodiversity, while spotlighting Indigenous peoples, Local and traditional communities, Children and Youth, and Small and Medium entrepreneurs
- **What to talk about:** How can global partnerships drive action? Who has been left out of the conversation that needs to be brought in? How can nature-based solutions drive delivery?
- **What to push for:** Getting finance to local communities so that they can deliver on the ground. Push for all voices to be heard in the negotiations: science, indigenous peoples, youth, business, and all communities need to be represented.

19th-20th November

- **Thematic agenda:** Agriculture, Food Systems and Food Security, Fisheries, and Family Farming Women, Gender, Afro-descendant, and Tourism
- **What to talk about:** How can we transform these big systems? What value can an integrated approach to mitigation, adaptation, and nature bring for food security and biodiversity?
- **What to push for:** Removing bureaucracy or barriers to action, in favour of sound governance and long-term legal accountability for the commitments made at COP30.

21st November

- **Thematic agenda:** Closing day, final negotiations
- **What to talk about:** Delivery! How can we make sure discussions do not end at COP30, and continue to move forwards every other day of the year?
- **What to push for:** Delivery commitments beyond the COP process. An integrated approach in the final outcome, bringing together everything we've discussed so far.

Join the online discussion during COP30

Taking the discussion to social media?

- Use **#COP30 #DeliveryCOP** to join IES members talking about the summit.
- Tag **@Institution of Environmental Sciences (IES)** on LinkedIn to share your voice with our online community. Follow the page for updates on COP30 as it happens.

Our voice at COP30

The IES and its members have an important voice in conversations about climate action.

Where we have emphasised key messages for COP30, we also want to play our part in making them a reality.

Our unique perspective connects us with professionals, scientists, policy makers, and the public, so we are well-placed to bring voices together to drive action onward.

Background to the project

In the second half of 2025, the IES held four discussion events with environmental scientists and other experts, identifying the most pressing priorities for COP30 and climate action.

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

The priorities outlined in this report represent the outcomes of those discussions. They are evidence-based and reflect a range of interdisciplinary expert and community perspectives.

What are IES communities?

Communities within the IES are groups of members brought together around a shared professional interest, goal, or challenge.

They are an integral part of the IES ecosystem, providing thought leadership for their area of focus and a forum for members to network, collaborate, and shape their sector.

At the IES, we know that our members are the experts. Communities are a key tool for directly engaging with our members, uniting their expertise into a shared voice.

This project was supported and inspired by the Climate Action Community, ensuring our work is evidence-based and led by purpose.

How can we help?

The IES is always willing to support the development of environmental policy through briefings, training, and access to experts and evidence.

Our members support the design, delivery, and evaluation of policy, as they help to

identify issues and reinforce the evidence underpinning decisions.

If you want more information about any of the priorities recommended in this report, we are happy to follow up in whatever form is most useful to you.

The IES family also includes a community dedicated to the effective implementation of ambitious policy: the **Environmental Policy Implementation Community** (EPIC), which brings together members from across the environmental sciences and local authorities.

Our area of expertise

The IES is a **professional body** with more than 6000 members. We represent the voices of environmental professionals, sharing insights from the front lines of working with the environment.

We provide an interdisciplinary approach to those insights, led by our members who work in climate, nature, air quality, land condition, sustainability, and anywhere else where environmental work is underpinned by science.

The IES is uniquely positioned to examine interactions between complex natural and social systems from a scientific perspective. We are a leading voice in '**systems thinking**' perspectives and **transformative** approaches to change.

Conclusion

COP30 is a critical point in our fight to limit climate change to 1.5 degrees. We are on a tipping point between two futures, and these decisions will decide which way we fall.

If we don't increase ambition and accelerate delivery, we could fail to avoid a world with over 3 degrees of warming, where we face catastrophic impacts for people and nature.

We could fail, but we won't. This is when we choose to succeed.

We have a better future to believe in, so we aren't scared by complexity. We know that it costs less if we act now, so we take an integrated approach and focus on the services that create real value for communities.

We work together on solutions, agreeing clear goals and plans to achieve them, which helps us make the transition fair for everyone.

When the discussions are done, we trust local communities to translate agreements into action, then we don't stop until the work is done, delivering every day of the year.

It's ambitious, it's challenging, but this is what it takes, and we need to choose to make it happen.

Environmental science is an essential partner in the global dialogue on climate change. For members of the IES, that means that everyone needs to step up, not only to speak with one voice, but also to act.

Get started by joining our Climate Action Community. It champions professionals in climate action, promoting the work of experts and evidence to drive change.

The Community is just one part of our work to **enable interdisciplinary solutions through science and connections**, in line with our theory of change, which sets out how the IES unites science and people to resolve environmental challenges, and sustains a profession engaged in the transformation to a sustainable society.

Beyond the IES, environmental scientists should work in communities and across the sector to support and enable delivery.

Later this year, the IES will be starting new work on a guide to help members to start delivery conversations at a local level.

By embracing science and fighting for a better future, we can deliver change in a complex world. Together, we can choose to succeed in the fight against climate change.

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