

# Clean Slate

No 123 Spring 2022 £2.50

Can COP15  
deliver for nature?

Spring woodlands

Helping small  
businesses  
engage with  
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# EDITORIAL

Eileen Kinsman

## Regeneration at CAT

Regeneration – it's a word that evokes thoughts of renewal, regrowth and revival, of nourishing the earth and protecting new shoots, helping create the conditions in which life can flourish and thrive.

At this time of year we see it all around us: it's there in the first joyful glimpse of daffodils at the roadside and in the sudden burst of birdsong in the hedges. It's there in the first bumblebee to emerge from her long hibernation and in the woodlands whispering with new life.

Nature provides a powerful reminder that the world has an incredible capacity for renewal and transformation, for new futures to emerge and grow, wherever conditions allow.

I've been thinking about the idea of regeneration a lot recently as we plan the next exciting phase in CAT's 50-year history, which you can read about on pages 9-11; from the regeneration of our eco centre, using regenerative approaches in the design of new education and visitor spaces and experiences, to continuing to help nature regenerate on a site that was once a barren slate quarry.

This new stage in CAT's journey will allow us to inspire, inform and enable many more people to help create a new and better future, helping people and communities imagine new possibilities and giving them the skills, knowledge and understanding to bring these better futures into being in the here and now.

The CAT story has always been one of regeneration and transformation, and our members and supporters have been at the heart of this since the early years. Over the next few months, we'll be asking for your thoughts and ideas on our plans, and we are very much looking forward to sharing in this conversation with you as we work together to shape a better world.

Eileen Kinsman  
Interim Co-CEO

**Keep in touch** Write to us: Centre for Alternative Technology, Machynlleth, SY20 9AZ



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## CAT's 2020-2021 Annual Review out now



Our latest Annual Review is now available to read, covering the year April 2020 – March 2021. The review details our successes and impacts over the year, all made possible by you, our supporters.

A few of our highlights from the year, which you can read more about in the full report, include:

- Welcoming the BBC's Autumnwatch and Winterwatch programmes to their Welsh base in our eco centre.
- Launching #CATatHome, ensuring we could still share climate solutions during lockdowns and beyond. This included our incredibly popular webinar series which has so far covered a wide range of topics, from renewable energy to climate justice.
- Enrolling a record number of students on our postgraduate courses – 256 students across the nine degrees.
- Developing our Zero Carbon Britain Hub and Innovation Lab, helping councils, communities and businesses respond to the climate emergency, including through new online training which we provided to over 500 people.
- Publishing our five-year strategy, showcasing our refreshed mission and vision for CAT's future.

We are looking forward to sharing more of our plans for the future with you in the coming months, including the development

of our eco centre, increasing our outreach work, and investing in our postgraduate courses and provision of skills for a sustainable future.

Thank you for your support over the past year, helping CAT build the better future we all know is possible. What we do is only made possible through the generous support of people like you, enabling us to carry out our vital work. Read the Annual Report at: [www.cat.org.uk/annual-report](http://www.cat.org.uk/annual-report)





## Graduate School student bursaries launched for 2022

CAT's Graduate School of the Environment is offering a range of annual bursaries for new postgraduate students in 2022, thanks to donations and support from charitable trusts and CAT members and supporters. These bursaries are a way of supporting students who would otherwise have been unable to afford to study at CAT to cover their tuition costs.

This year sees the launch of a new bursary, the Llwyngwern Bursary, named after the transformed slate quarry that CAT calls home. The bursary was inspired by our mission to inspire, inform and enable humanity to respond to the climate and biodiversity emergencies. This year the fund will support two new MSc students on a CAT Graduate School course to study climate solutions, and will pay 75% of their tuition costs.

Other postgraduate student bursaries offered through CAT's Graduate School of the Environment include the Rose Jessica Maia Bursary, the Sir John Houghton Bursary, and the Ethel and Gwynne Morgan Trust Bursary. Applications opened in early February and will close in May. To find out more about CAT's postgraduate courses or our bursaries, get in touch with Alis Rees at [gsmo@cat.org.uk](mailto:gsmo@cat.org.uk) or visit [www.cat.org.uk/gse](http://www.cat.org.uk/gse)

## New county communities climate action forums prove popular

In March 2021 we ran our 'Zero carbon counties: a conversation' webinar (still available to watch at [www.cat.org.uk/past-webinars](http://www.cat.org.uk/past-webinars)). We recognised that many attendees were struggling with working in isolation or finding ways to engage with new audiences, primarily groups focused on climate action at a county scale, or individuals interested in starting their own group. Much of the county-scale work was done through online meetings, and so it made sense to look at an online forum to help connect groups and share ideas.

A small focus group met last summer to discuss useful tools for encouraging and supporting county climate action groups. It was suggested that monthly meetings focusing on different topics would be helpful, and a list of issues to address at these sessions was put forward.

So far, monthly county communities climate action forums have looked at wide-ranging topics including renewable energy, funding for county-wide projects, biodiversity and transport. After the meetings the Zero Carbon Britain team share contact details of those interested in continuing the conversation and linking up the sector. As the network of groups grows, the forums are becoming more popular, and we hope bring even greater benefits to participants. This will begin to build a network of people and groups working to build new communities of action on the climate.

Once the forums have worked through the initial list, we may look at further topics, or revisit others in more depth with new participants or to share updates. You can sign up to attend future county community action forums at [www.cat.org.uk/whats-on](http://www.cat.org.uk/whats-on).



## CAT Chair to step down

At the end of March, we say a very fond farewell and thank you to Mick Taylor, who is stepping down as Chair of CAT's Board of Trustees after a decade in post.

During his time as Chair, Mick has played a pivotal role in helping steer CAT through some challenging times and supporting the development of our governance, management and strategic direction. He has helped place CAT in a much stronger position from which to increase our impact and influence.

On announcing his departure, Mick said:

"It has been an incredible privilege to be part of this unique organisation at a time when its work on environmental solutions is so absolutely vital. I'm very proud of what we have achieved together and look forward to seeing CAT play an ever more important role in helping equip people with the skills, knowledge and inspiration to build a better future."

Eileen Kinsman, co-CEO said:

"We really cannot thank Mick enough for everything he has achieved in his time as Chair. CAT Trustees do an incredible amount of work behind the scenes – all in an unpaid voluntary capacity. We would not be where we are today without the commitment and dedication of this amazing group of people, and Mick has been at the heart of this for many years."

Whilst he is stepping down from the Board, Mick will continue to be involved with CAT, including in an advisory capacity and as an independent member of the steering group overseeing our development plans.

Current Vice Chair Sally Carr will now step into the role of Chair and Andrew Pearman will become our new Vice Chair.

You may know Sally from her years spent volunteering, managing volunteers and leading teams at CAT. Most recently she headed up our fundraising and membership department, becoming a Trustee when she retired in 2019. Prior to her roles with CAT, Sally worked in leadership development training, team-building and coaching.

New Vice Chair Andrew Pearman has been a Trustee of CAT for three years. He has a background in IT project management in the energy and utility sector, including working with National Grid and international governments on the switch to renewable energy.

We are also saying goodbye to Rosie Plummer, who has been a CAT Trustee since 2016, and has contributed invaluable expertise in governance, leadership and funding in support of CAT's mission.

A huge thank you to Mick, Rosie and all of our Trustees for everything they have done for CAT over the years.

For more information about the CAT Board of Trustees, see [www.cat.org.uk/strategy-and-governance](http://www.cat.org.uk/strategy-and-governance)

### Poets working with CAT to communicate zero carbon solutions

Poets from Aberystwyth University will be working with CAT to produce poetry that explores the issues of climate change, nature and sustainability.

Members of the departments of Welsh and Celtic Studies, English and Creative Writing, and Geography and Earth Sciences will be working with our Zero Carbon Britain team to compose poems that address climate solutions and the challenges we face in tackling climate change. The poets will use our Zero Carbon Britain research, practice and training for inspiration and to help them communicate issues around the climate emergency.

The poems will be in both Welsh and English, and will be displayed at our eco centre for visitors to read, before being exhibited at Aberystwyth University.

Dr Anna Bullen from our Zero Carbon Britain team, said: "Gaining new insight into the challenges and the potential for using creative practice as part of the zero carbon dialogue will inform our efforts to effectively communicate environmental solutions to the wider public."

Professor Matthew Jarvis from the Department of English and Creative Writing at Aberystwyth University said: "Through training, lectures, and dialogue with CAT, we'll study practical responses to a sustainable future, learn about the significance of net zero goals and consider what a zero

carbon life would be like. We'll deploy this knowledge to produce poetry which explores the issues involved and which hopefully sparks a wider understanding of the concept of zero carbon for readers."

The Natural Environment Research Council have allocated funding to Aberystwyth University through their Discipline Hopping for Environmental Solutions fund, and this will support the project. This funding supports academics and researchers to work across disciplinary boundaries and, in doing so, to develop an understanding of different research perspectives and methodologies that could be used to address environmental challenges.

### New Zero Carbon Britain training added to meet demand

CAT's 'Zero Carbon Britain: Carbon Literacy for Local Authorities' training has become one of the most popular courses we offer, as local authorities sign up for both our scheduled training days and bespoke courses. Tunbridge Wells Borough Council, the Royal Borough of Kensington and Chelsea and Wrexham County Borough Council are just a few of the local authorities that have recently been trained or have booked in for training this year.

We are also working with a range of other organisations, including Poplar HARCA Housing and Community Regeneration Association in Tower Hamlets, for which we are delivering bespoke training which will then be used to develop a 'Zero Carbon

Britain: Carbon Literacy for Housing Associations' training course, launching later this year.

We are also providing training on aspects of renewable energy and local energy solutions to Local Energy North West Regional Hub, a programme that promotes investment in energy projects, and we are also working with the Church of England on bespoke training for 2022.

We are expanding our training topics all the time and would be happy to discuss relevant training for your group or organisation, across any sector. Get in touch at [zcb@cat.org.uk](mailto:zcb@cat.org.uk)

### Zero Carbon Britain bursary open for applicants

This year we are offering funded places on each of our 'Zero Carbon Britain: Live Online' courses via a bursary. The course runs over two days and offers an in-depth look at our research into zero carbon solutions.

As part of your application for a place we want to know how you will use the knowledge and skills gained on the course to implement climate action in your area, the likely impact of the training and why you would otherwise struggle to attend. Recipients of the bursary have gone on to change careers or set up events and projects in their areas that offer solutions to climate change.

To apply for one of the free places for the November course (runs 17 and 18 November) please visit: [www.cat.org.uk/zcb-bursary](http://www.cat.org.uk/zcb-bursary)

### New CAT training for Local Government Association

Following successful delivery of programmes in September 2021 and January 2022, CAT's Zero Carbon Britain team have been commissioned to provide further programmes on behalf of the Local Government Association (LGA) as part of their Leadership Essentials: Climate Emergency series. Four training programmes will be delivered over eight sessions, with two of these aimed at senior leaders and two at elected members.

The bespoke training will combine Zero Carbon Britain's reports and workshops with Carbon Literacy training to help elicit action and guide councils to implement their climate action plans. The sessions will be delivered by CAT's Zero Carbon Britain team with input from guest speakers, with the first programme being delivered in March.

Amanda Smith, Training Manager for Zero Carbon Britain, said:

"We are delighted to be working with the Local Government Association to provide this training for elected members and senior leaders, enabling action on the climate emergency. This

training, along with the peer to peer networking which forms a key part of the programme, is so important in developing positive, solutions-based action and reaching new audiences."

The LGA represents 328 out of 333 councils in England, working from borough to county council level.







## New interim CEOs announced

CAT's Head of Development, Eileen Kinsman, and Finance and Operations Director, Paul Booth, have been appointed interim co-CEOs whilst recruitment is planned for a permanent replacement for Peter Tyldesley, who left CAT at the end of last year.

Eileen and Paul have both been key members of CAT's Senior Management Team for several years, helping drive our success and shape CAT's long-term strategy and plans.

Eileen first worked with CAT from 2001 to 2004 as Administrative Director, going on to work as part of the leadership team at the National Library of Wales and the Wales Council for Voluntary Action. She returned to CAT in 2018 as Head of Development, leading on major projects such as the Zero Carbon Britain Hub and Innovation Lab and the planned eco centre developments.

Paul has over 30 years' experience as a chartered accountant, with 18 of those specialising in advice and support for the charitable sector. As CAT's Finance and Operations Director since 2019, Paul has overseen the development of our internal operations and has led on financial management.

Eileen and Paul said, "We are delighted to be leading this fantastic organisation at a time when our environmental education and research work is more vital and in demand than ever before. We are really looking forward to working with CAT staff, volunteers, supporters, students and the wider community as we enter an exciting new phase in CAT's near 50-year history."

Recruitment for the permanent CEO position is ongoing – keep an eye on the CAT website for updates.



### Specialist Guest Lecturers add to our postgraduate courses



Students on CAT's postgraduate courses are introduced to a wide range of topics related to sustainability and the environment throughout their studies, focusing on positive solutions that will allow humanity to respond to the climate and biodiversity crises.

Our Graduate School of the Environment lecturers provide their expertise from both academia and industry throughout the taught modules. In addition, we invite external guest speakers, including visiting academics and leading professionals, to bring further experiences and voices to the courses and subjects being discussed.

Since the start of the new academic year in September 2021, students have already had an array of great lectures and practicals from over 30 external speakers.

Keynote lectures have included Professor Kevin Anderson

from the Tyndall Centre, who gave a motivating introduction and overview to climate science and what needs to happen to deliver on climate commitments. Asad Rehman, a founder of the COP26 Coalition, also shared his experience of organising for climate action during the 2021 United Nations Climate Change Conference in Glasgow.

Students have also had lectures from: Dr Haseeb Irfanullah from the Center for Sustainable Development in Dhaka; Judy Ling Wong CBE, Honorary President of the Black Environment Network; Toby Park, Principal Advisor for the Behaviour Insights Team (Nudge Unit); Professor Tim Lang from the Centre for Food Policy at City University; Nick Parsons, sustainable building consultant; and Professor Lorraine Whitmarsh, Director of the UK Centre for Climate Change and Social Transformations (CAST) on climate-related behaviour change.

Alongside Graduate School staff and external speakers, CAT's Zero Carbon Britain team have run sessions with students, and we have also been able to welcome back CAT graduates to share their knowledge and experience. Recent graduates Michael Lomotey and Jo Becker returned for the Environmental Politics and Economics module to speak on climate justice and degrowth. We also welcomed Agamemnon Otero MBE, who talked with students about how he has been empowering communities in London to regenerate, through his work with Repowering London and Energy Garden, both of which he founded since graduating from CAT.

For more detail about CAT's postgraduate courses get in touch with Alis Rees at [gsmo@cat.org.uk](mailto:gsmo@cat.org.uk) or visit [www.cat.org.uk/gse](http://www.cat.org.uk/gse)

### Inspiring visitors

CAT's experts in gardening, ecology, buildings and energy are gearing up for a full programme of visitor events during the school holidays, as well as running bookable Experience Days throughout 2022.

Our free family activities help children connect with nature and start to explore some of the ways we can work together to build a better future, while scheduled guided tours will give visitors of all ages insights into solutions that can help address the climate and biodiversity crises.

Our Experience Days are a fantastic way to dig a little deeper with one of our experts. Whether it's gardening enthusiasts knowing how to support wildlife during the winter months or a family that will go home armed with the tools to discover more about their nature neighbours, joining one of our bookable days out is a fun and inspiring day out for everyone.

Take a look at our website for more information, and keep an eye out for new dates being added. [www.cat.org.uk/whats-on](http://www.cat.org.uk/whats-on)



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### CAT showed the love this February

The Climate Coalition's #ShowtheLove campaign runs every February, as people from around the country come together to show how important tackling the climate crisis is to them. People got involved in lots of different ways, including displaying green hearts to show the love for the things they want to protect from climate change and writing to their MP and the Prime Minister to call for leadership and action on the climate emergency.

At CAT, we held events at the eco centre over the February half term. Visitors were encouraged to get crafting to create a willow woven heart, and our Engagement Team were on hand to help families think about and discuss what they love most about the planet and the actions they can take to protect it.

We also ran daily tours throughout half term, introducing people to different aspects of the site including the Quarry Trail and our displays on various aspects of sustainability.



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# TIME FOR TRANSFORMATION

An exciting new project to reimagine the CAT eco centre will create a step-change in our ability to share solutions to the climate and biodiversity crisis, helping rapidly scale up our activities and impact and reaching a much wider audience – and we need your input.







For nearly 50 years CAT has explored and shared environmental solutions. From our early beginnings as an experimental off-grid community, through the development of our visitor centre to share solutions with people from across the world, to the creation of an innovative education programme to help people build skills and knowledge, CAT has always focused on finding and sharing effective solutions to environmental issues.

With the rapid worsening of the climate and biodiversity crisis, the need to empower more people to take action in their communities and workplaces, and in their own lives, becomes ever more urgent.

To rise to this challenge, CAT is planning a major new project aimed at transforming our capacity to provide the skills, knowledge and understanding needed to achieve a zero carbon future, whilst creating a positive impact for the wider community.

The project will see the creation of new spaces for education in environmental solutions, a sustainable skills hub to deliver green skills for the future, and an immersive world-class visitor experience to inspire many more people to take action on the climate and biodiversity crisis. Meanwhile a digital development programme will allow us to build on our existing outreach to share solutions with people around the globe.

### **Bringing the vision to life**

Plans will be shaped by public consultation and research over the coming months, and we are being supported in this by internationally renowned architect firm, Haworth Tompkins, and planning and development specialists, Turley, under a consortium led by Faithful & Gould.

Working together with CAT's own experts in sustainability and a range of local and national project partners, this team will support the development of a

### **What is the Mid Wales Growth Deal?**

The Mid Wales Growth Deal is a capital programme supported by a combined investment of £110m from UK and Welsh Governments, working in partnership with the region's local authorities, Ceredigion County Council and Powys County Council, with the aim of supporting job creation and stimulating economic growth.

CAT's development project has been included in a portfolio of shortlisted projects as part of the Growth Deal. To make our plans a reality, CAT will develop a robust business case that will set out the

ask from the Mid Wales Growth Deal and underpin the case for public funding as well as for the private sector support that is anticipated in match funding

Each programme and project within the Mid Wales Growth Deal requires a business case produced in line with guidance developed by Welsh Government and HM Treasury. A Strategic Outline Case, Outline Business Case and Final Business Case are submitted as part of a stepped project planning approach.



site and visitor experience masterplan, with accompanying market research, to create a world-class visitor experience and sustainable skills hub.

Supported by funding from the UK Community Renewal Fund, the team will now undertake extensive research and consultation with local people, businesses, partners, and stakeholders before refining and developing a business case to submit to the next stage of the Mid Wales Growth Deal (see box) by the end of July 2022.

Interim Co-CEO at CAT, Eileen Kinsman, said: “Haworth Tompkins not only have robust experience but, crucially, they have a deep understanding and appreciation for environmentally-driven projects — giving us every confidence that they’ll help to realise our vision.

“Meanwhile, our work with Turley and other consortium partners including Rural Office for Architecture and Vital Ecology, will bring a wealth of experience to the project and will play an important part in the development phase.

“Community consultation is at the heart of our plans, and we’re excited to move into this next stage of development with our new partners — creating opportunities for local people, businesses, members, students and stakeholders alike to have their say on the future of CAT, and to ensure that we are creating the best possible benefits for the people, environment and economy of Mid Wales.”

### Meet the architects

Haworth Tompkins’ designs are transformative, acting as a catalyst for positive change. They consider environmental, social and economic sustainability — adopting regenerative principles to achieve long-term positive impacts for both the community and the environment.

With 30 years of experience, the RIBA Stirling Prize winning architects were initiators and co-founders of Architects Declare — a network of architectural practices committed to addressing the climate and biodiversity emergency.


Haworth Tompkins Director and project lead, Lucy Picardo, said: “As co-founders of Architects Declare we are acutely aware of the climate and biodiversity emergency the planet faces and the urgent need to take radical positive action. As a team, regenerative design sits at the root of our work. We are especially excited to be working with CAT on this project, as it builds upon our own experience and interest to go further, adopting regenerative principles to achieve long-term positive (rather than neutral) impacts, for both the community

and environment.

“2023 will mark 50 years of CAT, our mission for this project is to support CAT to continue to educate audiences, provoke conversations and inspire positive behavioural change for the next 50 years and beyond.

### Help us shape our plans

It is thanks to the support of our members and the wider CAT community that the project has made it to this exciting stage — and we’d love your input during the next phase of our journey.

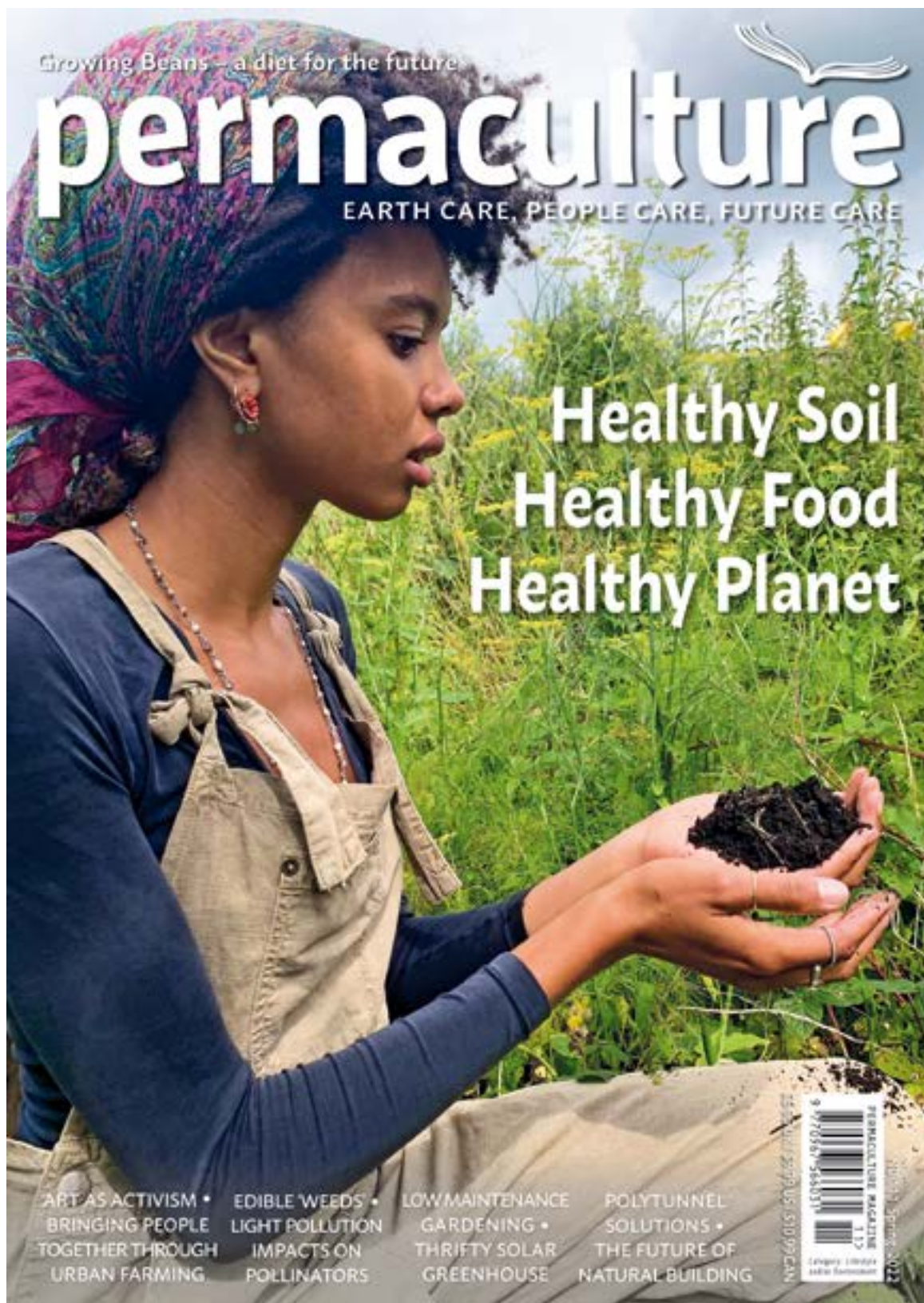
There will be a series of community events taking place at CAT and virtually in March and April — where you will have the opportunity to meet the project’s partners, hear about the plans, and share your views. To find out more about these events, take part in a survey, and stay up to date on the project developments, please visit our website — [cat.org.uk/futureplans](https://cat.org.uk/futureplans) 



## The story so far and next steps

- **2019** - CAT takes part in public consultations and discussions on the Mid Wales Growth Deal along with a wide range of organisations and key stakeholders from across the region.
- **2019-2020** - CAT’s Strategic Plan for 2020-2025 is developed, focusing on the need for a step-change in activities to maximise impact on solutions to the climate and biodiversity crisis. Investment in skills provision, the creation of an inspiring new visitor experience, and digital outreach to reach a much wider audience are amongst the key organisational objectives.
- **June 2020** — CAT submits a draft Strategic Outline Case to the Growing Mid Wales Board for inclusion in the Mid Wales Growth Deal Portfolio. This gives an overview of the vision for the development of a flagship sustainable tourism destination and regional sustainable skills hub as part of a major development of the CAT eco centre.
- **September 2021** — CAT project identified as a candidate for funding as part of the £110m Mid Wales Growth Deal Portfolio, alongside organisations including Montgomery Canal and Aberystwyth University.
- **November 2021** — CAT secures funding from UK Community Renewal Fund to support feasibility studies and development stages for next step towards securing Mid Wales Growth Deal funding
- **November 2021** - CAT appoints planning and development consultants Turley to refine the Strategic Outline Case.
- **December 2021** - CAT launches public tender process, inviting applications from consultants to support the development of detailed feasibility studies for the project.
- **January 2022** — CAT appoints Haworth Tompkins and Faithful & Gould consortiums to progress the next phase of the project: to develop the Outline Business Case, including a site and visitor experience masterplan.
- **July 2022** — CAT to submit Outline Business Case for next stage in the Mid Wales Growth Deal process.
- **2022-23** — CAT to develop Full Business Case for the project for the final stages of Mid Wales Growth Deal decision-making.
- **Spring 2023** — Potential start date for Phase 1 of eco centre development.

CAT would like to thank everyone who has helped to get the project to this stage, including CAT members, supporters and students, the local Mid Wales community, Hughes Architects, Emma Alesworth, Timber Design Wales, and many others. Thanks also to the UK Community Renewal Fund for supporting the feasibility studies and to Powys County Council for shortlisting CAT for this funding, and to the Growing Mid Wales Board for shortlisting CAT’s project within the Growth Deal Portfolio.



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# What next for emissions reduction plans?

In the wake of COP26, it is clear that national plans to reduce emissions do not go far or fast enough to deliver on what the science asks of us. However, local leadership can play a vital role in delivering on the ground actions, which can act as a testbed to help inspire, inform, and enable national governments to increase their ambition in the run-up to COP27. **Paul Allen** looks at how CAT is helping local organisations to pave the way.



**A**s we move forward from the climate summit in Glasgow last November, we face a clear gap between the national commitments made at COP26 and the scale of the emissions reduction needed to avoid irreversible climate breakdown. Recent reports by internationally respected bodies, such as the Intergovernmental Panel on Climate Change (IPCC) and the UN Environment Programme (UNEP), clearly spell out the urgent need to raise national ambition if humanity is to keep the target of no more than 1.5°C warming within reach.

At COP26, countries offered voluntary Nationally Determined Contributions, known as NDCs, towards reducing their emissions. Climate Action Tracker estimates that even with all the new Glasgow pledges for 2030, we will emit roughly twice as much in 2030 as is necessary to keep within 1.5°C warming. Therefore, all governments need to reconsider their targets. Beyond the 2030 targets, the world needs to reach net zero emissions by 2050 at the very latest.

Levels of global temperature change caused by the climate crisis are not only impacted by the date at which net zero is reached, but also by the cumulative volume of greenhouse gases released in the intervening years. New NDC pledges must therefore focus on near-term measures to reduce annual emissions, allowing us to stay within the remaining global 'carbon budget' for 1.5°C (i.e. the total emissions that we can release and still have a good chance of staying within this threshold).

Too many net zero pledges rely on the future deployment of technologies such as carbon capture and storage, which are currently unproven at scale. By not doing what's needed to cut emissions now, the burden is effectively placed on future generations to recapture large amounts of carbon, using technologies that do not yet exist.

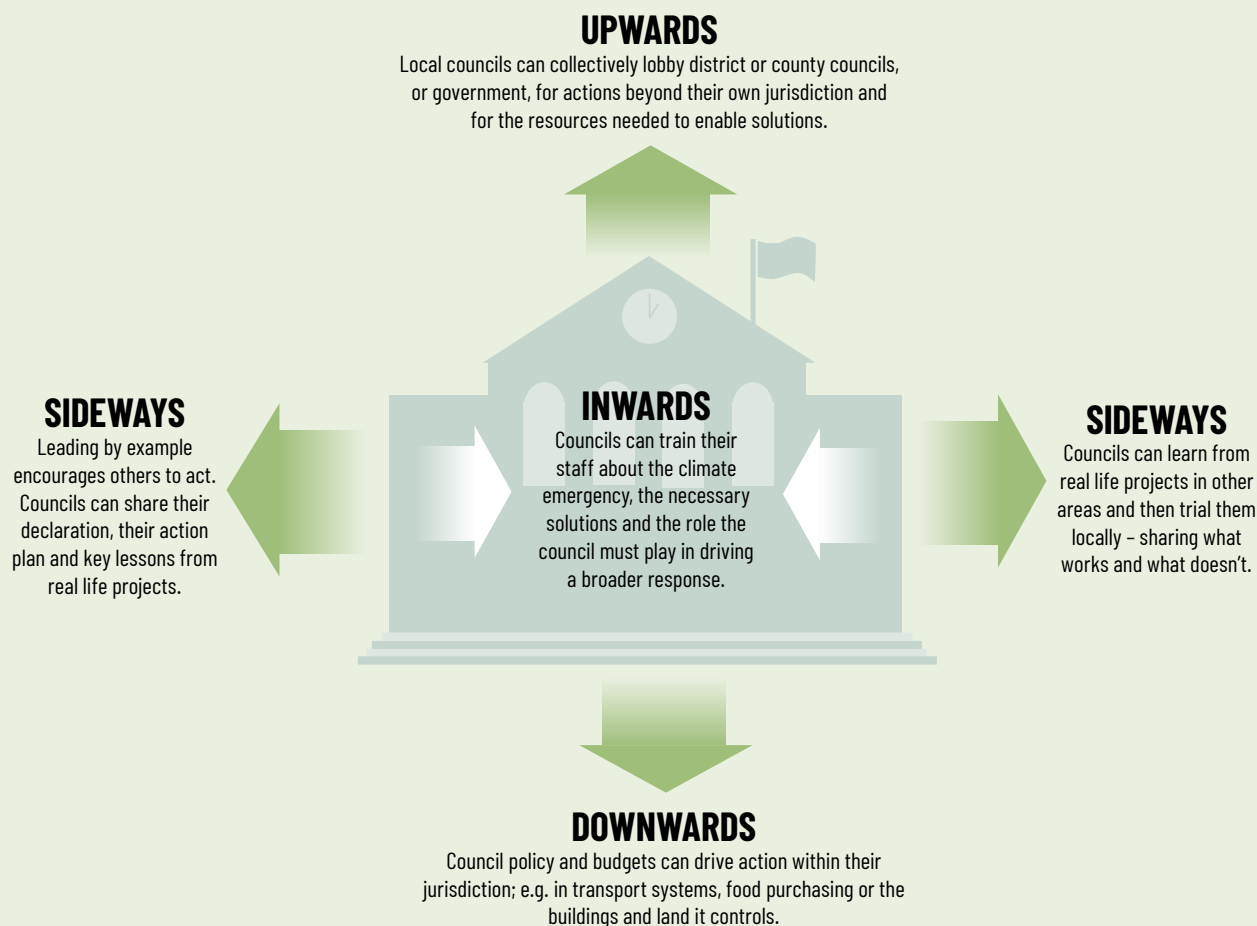
NDCs should instead be built around fair shares of the remaining global carbon budget, with plans based on proven solutions backed by appropriate

funding. We urgently need to move from tweaking business-as-usual towards a transformational approach to a just transition. Nations must come back to COP27 this year with radically increased commitments and the plans to deliver on them.

## Local leadership

Whilst pledges and actions from the world's governments don't yet show the level of ambition needed, many local, regional and sub-national authorities worldwide continue to show greater determination and remain at the forefront of climate action.

Across the world, councils, local authorities and other groups are demonstrating bold leadership through their action plans, which are coming to be known as 'Locally Determined Contributions', or LDCs. Although these are not yet on the national scale, they can influence national policy by proving that rapid change is possible. Ambitious local action has never been more important,



### Downwards

This direction of action is rooted in work to research, identify and act on things within your direct control. For example, a council can re-think policy, budgets, and procurement processes to drive action within their jurisdiction. This could be in the transport systems it runs, its food purchasing contracts for schools or hospitals, the land it controls, the education system it manages, or its libraries, arts and cultural venues. A council can also take strong and immediate action on its own infrastructure, including buying energy from renewable providers, insulating its buildings, and identifying roof space for solar PV. It can change the banks it uses and divest from fossil fuels and polluting industries. A council can make its climate requirements clear when any subcontracted tenders are coming up for renewal, and encourage bids from local social enterprises and sustainable supply chains. This can also increase resilience and local benefits, as Preston Council has demonstrated (see box).

Councils can also support the bodies for which they have responsibility – for a county council this could include the development of ‘climate emergency action packs’ to support district and parish councils within its area.

Such downwards action can be made in some way by any organisation, business, local group or household. It is worth identifying and prioritising quick wins – changes that can be achieved rapidly, regardless of how significant the emissions reductions are, to use these projects as a showcase.

### Sideways

For every aspect of a climate action plan, there are real-life case studies that show how change can be achieved and mistakes avoided. Councils or groups can learn what works, and what doesn't, from projects in other areas and then trial them locally. From community tree planting to solar streets to mass retrofit of social housing, once you can see it in real life, making it happen in your area becomes much easier. Researching and harvesting relevant case studies can demonstrate locally that change is achievable. This can help scale up plans, avoid mistakes, and highlight sometimes unexpected co-benefits, such as job creation, cost savings, health and wellbeing improvements, or community cohesion. CAT's online Zero Carbon Britain Resource Hub has been set up to help councils identify projects they can try and replicate.

Sharing genuine experiences and stories also encourages others to act. Local groups or councils can share their action plans and, most importantly, their stories of real-life achievements to date. Openly and honestly communicating what worked, and just as importantly what didn't and why, can be hugely beneficial to other groups. For councils, this can include those nearby, councils they currently work with, those they are twinned with, and council networks such as the Local Government Association.

### Upwards

Once they have a plan, local councils or groups can collectively lobby beyond their direct control for the policies and resources needed to enable change.

They can call on their district or county councils, devolved government or UK Government to make available the resources, funding and authority needed to enable actions in the wider local area.

Groups can lobby upwards within their own organisation, to their landlords, networks, trade unions or trade associations.

If many diverse voices work upwards collectively, they will have increased influence. Upwards calls for action could include reconnecting a rail link, rethinking local transport systems, relocalising supply chains, stopping an airport expansion, increasing access to land, reallocating assets and budgets, or reforming planning laws.

### Inwards

Whenever we need to change, we need the relevant skills. For example, if we decide to change the rules on health and safety or data protection, the change must be backed up by training to enable successful on-the-ground delivery. So, to rise to the climate and biodiversity emergency, councils, businesses and groups need to educate their staff about the problem and its causes, and provide the necessary skills to enable change.

This could include, for example, bespoke Carbon Literacy training for relevant staff, who can then train their peers. For larger groups or councils, inwards action could also include forming an expert advisory group or a citizens' assembly to participate in decision-making and review proposals. It is worthwhile incorporating individual and collective time for evaluation, reflection and respite.



Relocalising supply chains can reboot local economies and ensure proceeds are shared more fairly across the community.



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so CAT has been working with local authorities and community groups to help them to turn local plans and declarations into action.

### The four directions – how local activity can influence national action


Rather than becoming overwhelmed by the sheer scale of the challenge, councils, businesses, local groups or even individual households can make change happen simultaneously in several ways. In CAT's training and support for local level action, we draw on the 'four directions tool' (see opposite) to help people explore their areas of influence. This is rooted in pioneering work by the Australian group, Council and Community Action in the Climate Emergency, and provides a framework for exploring how any council, business, organisation, community group, NGO or household might create change.

### Getting ready for COP27

As national plans currently fall short of the ambition needed to meet the scale and speed of the climate crisis, local action can play a vital role in catalysing wider emission reductions. COVID-19 and budget cuts are limiting local councils' ability to act, but if national governments provide support, we can unleash action, rooted in the culture,

wisdom and knowledge of the region. Local councils and groups will not be able to reverse climate breakdown by themselves. However, by working in these four directions with their climate action plan at the centre, they can deliver meaningful actions which can help inspire, inform and enable national governments to increase their ambition in the run-up to COP27.

CAT's Zero Carbon Britain Hub and Innovation Lab are working hard to support this local action. We help provide councils, communities and other organisations with the knowledge, confidence and skills they need to combat the climate crisis. We do this using a range of training courses, events, research reports, innovation labs and free online resources.

If you work for a local authority or are part of a community group and would like to explore ways to influence and inspire action, have a look at our training and courses page: [www.cat.org.uk/zcb](http://www.cat.org.uk/zcb) 

### About the author

*Paul is Knowledge and Outreach Coordinator for CAT's Zero Carbon Britain Hub. He has led our ground-breaking Zero Carbon Britain research for over 13 years, leading on the development of six reports and liaising directly with government, business, public sector and the arts to share their findings.*

### The four directions tool in action

Across the UK, a great many councils are taking urgent action with partners and their local communities, to act on climate change. Below are two examples of the four directions in action.



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#### Downwards – Preston City Council

Community wealth building has emerged as a powerful co-benefit of relocalising supply chains. In this scenario, wealth is not extracted to elsewhere in the economy, rather it is locally held, and income recirculated. These ideas are being applied by a growing number of businesses and public and social sector organisations across the UK, who are now driving a shift in thinking.

Preston City Council is one such player, committed to promoting the concept across a range of Preston-based anchor institutions, including Lancashire County Council, University of Central Lancashire, Preston's College and the Lancashire Constabulary. Many of these institutions have significantly greater spending power than the City Council, making their influence all the more important.

Not only can relocalising supply chains reduce emissions and increase resilience, but it can also help reboot local economies so that they operate in ways that are more inclusive, and share the proceeds more fairly across their communities.

[www.preston.gov.uk/article/1339/What-is-Preston-Model](http://www.preston.gov.uk/article/1339/What-is-Preston-Model)

SocialMedia Assets



#### Inwards – Yorkshire and Humber Climate Commission

The Yorkshire and Humber Climate Commission brings together the public, private and third sectors to support and guide ambitious climate action. Carbon Literacy training has been championed and is at the heart of their action plan. The plan calls for individuals and organisations across the region to use their training to ensure that people at all stages of life can learn about, and contribute to, local efforts to mitigate climate change.

[www.yorksandhumberclimate.org.uk/climate-action-plan](http://www.yorksandhumberclimate.org.uk/climate-action-plan)

# Can COP15 deliver for nature?

With COP15 just two months away, **Claire Thorpe** gives an overview of what we might expect from the summit, and talks to **Dr Scott Leatham** about what it could mean for the climate.

After all the buzz around COP26 in November, you could be forgiven for thinking we're taking a trip back in time to a previous conference. But we're referring to a future COP15 - this one focused on biodiversity. COP15 was scheduled to be held in Kunming, China, in October 2020, but just like its climate cousin, it was delayed due to the pandemic. The meeting, where countries hope to agree on a post-2020 Global Biodiversity Framework, has been rescheduled to May this year, although there are growing doubts about the feasibility of holding the event in person.

## Targets for nature protection

There are three main targets for the 196 countries attending the summit to agree on. The first is protecting 30% of the world's land and sea by 2030. Some of the big points of disagreement will likely surround where these protected areas are located, who funds them, and how ecologically intact the areas must be (for example, how much of the original species richness does the ecosystem contain, or how fragmented and degraded is the habitat).

Secondly, there is a finance target. The UN Environment Programme (UNEP) is looking for a \$200 billion increase in international funds from all sources. This would help fund conservation work and generate security for protected areas, helping ensure they can be policed. Extra funding may also come from the third big commitment - to redirect or reform financial incentives that currently enable and contribute to practices harmful to biodiversity. This includes subsidies for intensive agriculture, deforestation, and fossil fuel extraction.

There is also mention of a target for reductions in invasive non-native species, reductions in pollution from pesticides, fertilisers, and plastics, and the contribution of nature-based solutions to fighting climate change.

## Historic failures

The Convention for Biological Diversity (CBD) was signed by 196 countries (not including the US, which never

ratified the treaty and will not be part of the negotiations) in 1992, the first global treaty for protecting wildlife and nature. As with the climate, countries have fallen far short of their targets for 2010 and 2020, as downwards trends for most species continue at pace, with a 2019 study showing one in nine species globally at risk of extinction this century.

Most of the biggest drivers for biodiversity loss cannot be tackled at a national scale. Pollution, invasive species, and the factors that lead to habitat loss (for example, overconsumption) are global issues. Between 2010 and 2020, some countries developed strategies for meeting targets to prevent the loss of biodiversity, but they didn't have time to act on them before the 2020 deadline. Now, 192 countries have such strategies, so they should be able to work much faster to implement them and work to their targets to protect habitats and species going forwards. [↗](#)

## About the author

*Claire Thorpe is the Communications Manager for CAT, her background is in wildlife conservation and outreach.*



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Indigenous groups at the COP26 Coalition Global Day of Action

Ana Pessoa



# COP15 and the climate emergency



**Dr Scott Leatham** is a political ecologist and senior lecturer and tutor at CAT's Graduate School of the Environment. He focuses on issues of human-nature relations and how we represent and know about nature and environments in different contexts, and through themes like justice, representation and exclusion. We asked Scott what he thought about the upcoming COP15 conference and how it relates to the climate emergency.

## How will this meeting link to COP26 and action on climate change?

We're likely to see a lot more talk about nature-based solutions. This is one of those terms used so often by so many diverse actors that it's hard to pin down any consistent definition or rulebook. It has spawned new academic debate (even its own academic journal launching late last year), with debates raging on effectiveness, governance, and justice. On paper, it may sound great: restore nature, protect it, and reap the carbon-storage (and other) benefits of afforestation, peatlands, kelp forests, and seabed restoration. We've covered the possible (and currently existing) pitfalls of over-reliance on this in previous issues of *Clean Slate*.

Despite the knowledge gaps and uncertainties, nature-based solutions were extensively covered throughout COP26, from country plinths offering little beside tree planting to headline-grabbing pledges on reforestation. China, the host of the biodiversity COP15, has already argued for increasing nature-based solutions in talks at Kunming.

Despite knowledge and governance gaps, there's good reason to welcome the realisation that the climate and ecological emergencies are deeply interconnected. As well as the multiple, complex feedback loops and connections between climate change and nature loss, they share common causes and require similar transformations of entire systems to begin addressing the problem. The kinds of changes we have to make to the global economy, to livelihoods, to how we move around, and so on, in order to stay within 1.5°C warming by 2100 will also benefit our fight against ecological collapse.

## What lessons should be learnt from COP26?

One key argument made by civil society alliances, such as the COP26 Coalition, which CAT is a part of, was that COP26 was among

the least inclusive of all previous COPs. This meant that vital perspectives were missing from the official process. As we look to COP15, it's crucial that a much more diverse range of voices are heard.

Indigenous groups and alliances – a large, globally-spread network representing roughly 80% of the world's biodiversity as well as threatened ways of life – point to the ongoing displacement in such territories as a result of corporate and state-driven land grabs in the name of nature-based solutions. If the need for land sovereignty continues to be ignored, then big agendas for protecting 30% of the world's land by 2030 (and even bigger, the so-called Earth 50 plan of turning half the world into a protected area) risk erasing these histories, knowledges, and people.

Without land sovereignty and rights enshrined and protected for marginalised groups, we further risk the world's remaining biodiversity hotspots. We also risk losing local knowledges that deserve to survive in their own right, as well as for the lessons they offer about living in harmony with nature.

## What alternatives are there?

The facts are stark: we have entered a sixth mass extinction – an event that humans have not experienced before. The last global framework, the Aichi targets, failed on every one of the 20 targets.

Already in 2022, we've had a key piece of the planetary sustainability puzzle filled in, as researchers updated the Planetary Boundaries Framework with what's called the 'novel entities' boundary. The framework tracks nine planetary boundaries, any one of which – if exceeded – could lead to the Earth entering a 'new state'. This year, novel entities (a big part of which is plastic pollution) was revealed to have joined biosphere integrity and biogeochemical boundaries as already far exceeding safe limits. We are beyond looking at these boundaries, which includes climate change, as separate issues that are manageable individually. What we're left with, though, is cause for hope: the causes and consequences of this mass extinction are systemic – we must respond in kind.

COP15 has to move beyond the idea that we can protect nature as a separate entity – something outside of us. Calls for restoring "wilderness" as a place "out there" reject our own wildernesses. We are inseparably a part of nature and capable of living in and within it; not as a tourist destination but inextricably as a part of our lives – from our cities to our agriculture.

Often, it is not about creating something new but listening to what's already being done. What some researchers have called 'convivial conservation' is a way of transcending stale arguments in conservation about protected areas and commoditising nature. It brings together research institutes from around the world, including at the University of Sheffield in the UK, with local knowledges and implementations. The shift is already happening.

As with COP26, large governance mechanisms have fallen far short in terms of biodiversity protection. But the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) has already called for the 'transformation' of our economic systems – we need to ensure this is not just empty words. We are decades beyond being able to simply tinker with economic systems with their built-in injustices and insatiable growth. It is long past time to imagine something better, and that is what world leaders must do at COP15.

References available on request.

01908 886854

[www.ecodesignconsultants.co.uk](http://www.ecodesignconsultants.co.uk)  
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# SPRING AWAKENING

Woodlands are iconic habitats – people associate them with new life, a healthy environment and more and more often with their potential to store carbon. But every woodland is different, and there are a wide variety of forest types in the UK. **Claire Thorpe** explores spring woodlands, including species to look out for and how we care for the woodlands at CAT.



Bluebells in a beech woodland.

Joshua Copping

**W**oodlands flourish in spring. In many of these habitats, leaves unfurl, sticky buds burst to life and the woodland floor becomes dotted with colour as the flora there gets ready for the new season. Forests are some of our most biodiverse habitats, with a huge range of invertebrates, mammals, birds, plants and fungi all reliant on woodlands for food and shelter. However, woodland is not a one size fits all term. There are many different types, all with their own unique characteristics and assemblages of species.

Soil type, geology and climate can all affect the woodland found in an area, and tree age will also help determine the habitat's character. Just 13% of Britain

is covered by woodland, well below the EU average of 38% (jumping to 46% for Europe if we include Russia). Once, our forests would have been vast, but hundreds of years of harvesting and destruction drove our tree cover right down to lows of just over 5% after World War 2. Despite this, we are fortunate to host some extremely rare forests, including temperate or Atlantic rainforest, found in areas including the west of Wales and forest habitat around CAT. Afforestation schemes have helped increase tree cover again in Britain. However, planting has not always been sensitive to the requirements of wildlife or done in the right place.

Getting out to visit your local woodland

can be very rewarding, with lots to look out for. These habitats, including the woods around our eco centre, often need careful management to create or maintain the spaces needed by certain animals or plants. Ensuring a diversity of tree ages, maintaining differing light levels and removing invasive non-native species are all ways to sustainably care for woodland habitats.

## **Broadleaf woods**

Broadleaf woodlands are probably what you picture when someone mentions a British forest. They may contain iconic native species such as oak and beech, and some areas hold fragments of ancient forests, hundreds of years old. The trees





Many woodland habitats are stunning in autumn as deciduous trees lose their leaves.



Pine martens are recolonising healthy woodlands in Britain.

found here are seasonal, their leaves turning to fiery autumn shades before they are dropped, then going through a period of stunning regrowth in spring.

In the south of England and Wales, magnificent beech woodlands grow on dry, chalky soils. Thick carpets of leaves build up on the ground, where little light reaches, thanks to a dense canopy. These conditions mean there can appear to be few plants growing in the lower levels, but some specialists thrive, such as the rare violet helleborine and bird's nest

orchids. In spring, you may also find carpets of bluebells on the woodland floor, flourishing before the leaves of the trees create a full canopy. As the trees age, their bark cracks and knots, providing a home for many invertebrates and cavity-dwellers like the great spotted woodpecker. Beech trees have a shallow root plate and are therefore susceptible to storms and droughts, making them particularly vulnerable to climate change.

Majestic oaks often form mixed woodlands with ash or birch, as well as smaller numbers of other deciduous trees. These woodlands have a patchy canopy, so a dense layer of shrubs and wildflowers grows on the forest floor. Mixed oak woods come alive in spring, as oaks support more species than any other tree. Hundreds of invertebrate species can live in oak woodlands, and some rely on this tree for food. For example, the purple hairstreak butterfly caterpillars will only feed on oak flowers and leaves. The diversity of insects means there is a wide range of birds and mammals in these forests. Mixed woodlands provide an abundance of food sources, and no two woods are the same, meaning you never quite know what you'll find on a visit!

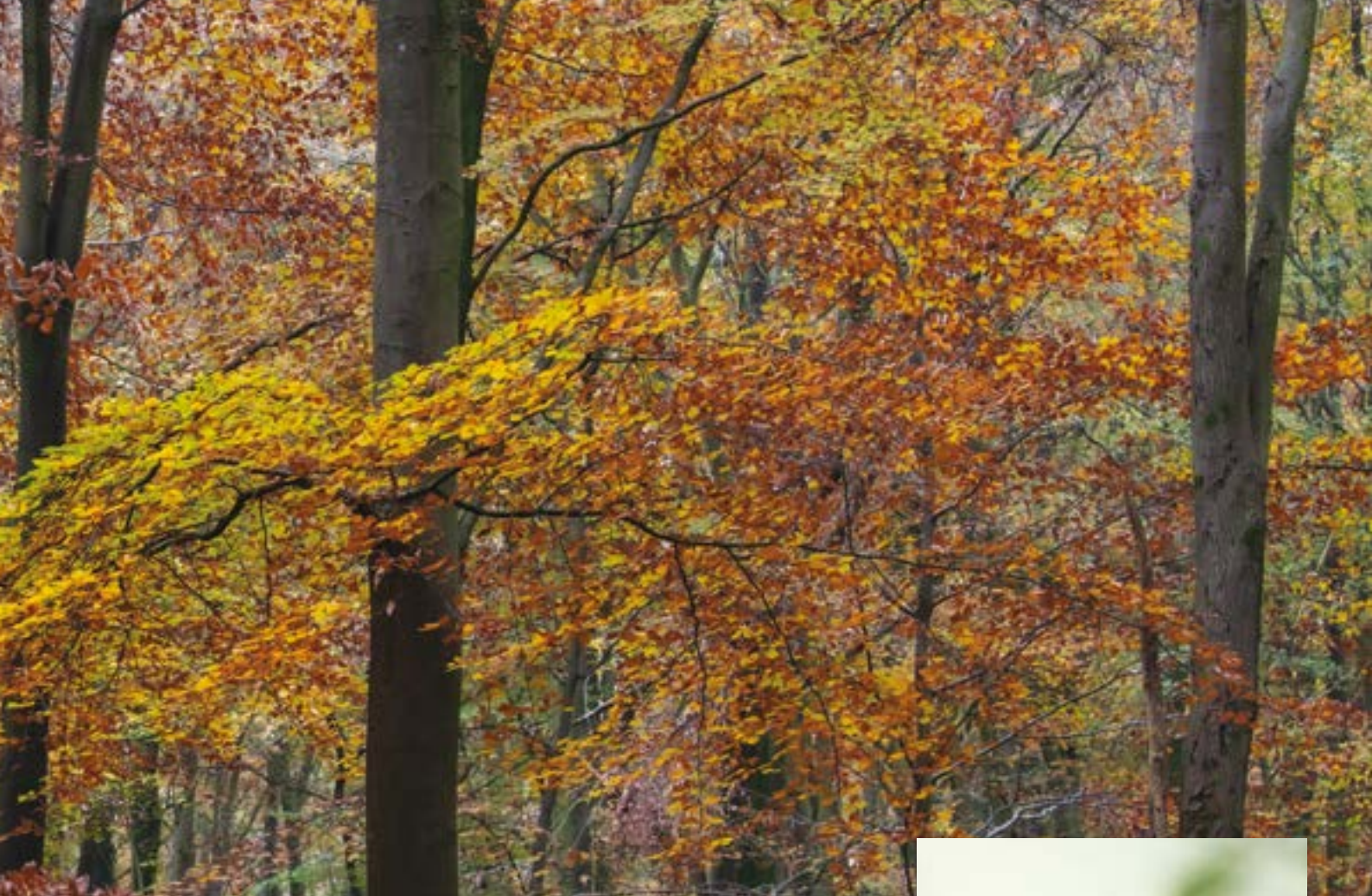
### Rainforests

Along parts of the west coast of Britain, oak habitats, mixed with hazel, birch and

pine, form extraordinary habitats known as temperate rainforests. Higher humidity and rainfall than other forests mean these wet areas host hundreds of species of moisture-loving lichens and mosses. These plants create microhabitats on the trees, perfect for invertebrates, which in turn bring in creatures higher up the food chain. Near CAT, there are excellent examples of temperate rainforest, including in the Dyfi Forest and Ceunant Llenyrch National Nature Reserve. Visitors to the eco centre might be lucky enough to spot a pretty pied flycatcher, these birds arrive in late spring after a winter in Africa and are specialists for the mild, damp conditions created within a temperate rainforest.

Temperate rainforests would have once covered large swathes of our coastal areas, but many have been destroyed and overgrazed. The remaining fragments are more vulnerable to future threats like the changing climate and invasive species. Rhododendrons, originally from Asia and North America, will aggressively swamp woodland habitats and quickly establish themselves as the dominant species. They are expensive and difficult to remove, and research suggests they may leave behind chemicals in the soil that inhibit the growth of other species, a phenomenon known as allelopathy.





### Coniferous habitats

Native coniferous forests are unlikely to be a familiar habitat to most of us, as most pine habitats in the UK are comprised of non-native trees in plantations. These planted areas have low value to wildlife, as the trees do not support many of our native species, and techniques which strip the land of trees can be very damaging.

Yew, juniper and Scots pine are Britain's only native conifers. Yew forests are rare, and these densely shaded habitats tend not to be especially diverse, although the trees themselves are often ancient.

On the other hand, Caledonian pine forests, only found in a few parts of Scotland, are home to rare and unusual species. Large Scots pines are often mixed with smaller deciduous trees like rowan and hazel, creating mixed canopies and varied habitats. Red squirrels feast on the seeds of Scots pine, while birds like the crested tit, found nowhere else in the country, hunt down insects within the fissured bark of the tall 'granny trees' that dominate the landscape. Overgrazing and harvesting have reduced Caledonian pine forest to just a fragment of their former glory, where they would have once covered much of Scotland.

### A helping hand

Not all woodlands need to be managed, but human intervention can help increase

the value of some forested areas for wildlife, as well as provide a sustainable source of income.

At CAT, we carry out coppicing of the woodland around the eco centre. This practice, involving cutting down stands of trees in rotation over a set time scale, maintains a varied age and light structure in the woodland. Coppicing is usually done to hazel or sweet chestnut trees, and the timber can be used in lots of ways, especially in the garden. The hazel dormouse, found at CAT, relies on coppiced habitat and parts of our woodland are now managed to ensure their continued presence. Wildflowers and insects also thrive in the dappled light introduced by felling small areas.

You can find out more about our practices in our Sustainable Woodland Management course, which runs throughout the year. The course focuses on the skills and techniques used at CAT's woodland, Coed Gwern. We carry out continuous cover forestry, which gives a continuous supply of timber while providing cover and keeps some areas protected for wildlife. This contrasts with clear-fell logging, where whole forests are felled at one time. We have also been planting trees and keeping a mosaic of shrub cover. In January, participants on this course saw demonstrations of a chainsaw mill, using a felled Douglas fir.



A pied flycatcher in the Elan Valley.

The wood will be used for a footbridge at the eco centre, and the light created by felling the tall, non-native tree will help wildlife flourish as more light reaches the ground. Our sustainable management is paying off, with pine martens recently identified as inhabiting the woodland, and red-listed woodcock breeding here. [G](#)

Find out about our upcoming courses and training – [www.cat.org.uk/whats-on](http://www.cat.org.uk/whats-on)



# CAT CONVERSATIONS –

## Ruth Chapman of renewable energy pioneers Dulas Ltd.

**Ruth Chapman** is the Executive Managing Director of Dulas Ltd, a pioneer in the use and development of renewable energies and technology. We spoke to her to find out more about Dulas and how CAT helped start it all.



**CAT: Tell us a little about how Dulas came about and the connection with CAT.**

**Ruth Chapman:** Back in the early 1980s, a group of engineers based at CAT began to develop a variety of renewable energy products aimed at solving various issues, both in the UK and internationally. These products were early versions of our dataloggers, used to capture wind data for the onshore and offshore wind energy markets, and our solar powered vaccine refrigerators, designed to ensure blood and vaccines are kept at the precise temperature required to remain viable. In 1982, these engineers formed Dulas, and we have been pioneering products and services within the UK renewable energy and international humanitarian aid markets ever since.

**CAT: How has CAT influenced your work since then?**

**RC:** Dulas Ltd currently employs around 50 people, with an additional 25 employed at its factory, Polestar Cooling Ltd. The majority of the Dulas employees are based in Mid Wales, at our headquarters, which is next door to CAT. Many of our employees have either studied or worked at CAT. In fact, I completed an MSc at

CAT in 2011, and I have worked at Dulas ever since. As a co-operative organisation, many of our principles are aligned with CAT's ethos, and we share CAT's passion for providing solutions to climate change, both at home and globally.

**CAT: It's the 40th anniversary of the creation of Dulas this year – what achievements are you most proud of?**

**RC:** Too many to mention! First of all, we are proud of our people and their commitment to our vision – to bring reliable and cost-effective zero carbon energy solutions within reach of every organisation, every community and every individual. Our employees are highly skilled engineers, consultants and project managers who work to ensure renewable projects are well designed, consented, implemented effectively, optimised and looked after. As an employee-owned co-operative we have significant buy-in to our vision and values from our members, and they help shape the strategic direction of the company. This makes it a rewarding place to work.

Secondly, we are very proud of the difference we have made to the UK renewable energy market. Our expert planners and Environmental Impact Assessment (EIA) specialists are directly responsible for ensuring consent for a wide variety of renewable energy projects across the UK and Ireland, in particular some 550MW of dedicated wind energy projects, along with more than 420MW of solar PV. Our teams of engineers maintain and help optimise many renewable energy systems, directly contributing to a reduction in fossil fuel use in the UK.

Thirdly, we take significant pride in the difference our solar direct drive (SDD) powered vaccine fridges make internationally. We design and manufacture within the UK and export and install thousands of SDD fridges annually. Our products are suitable for both routine vaccination programmes and humanitarian aid requirements. They can be used in remote areas with little or no grid





Dulas provides a range of services to ensure that project owners generate the maximum potential from their hydro schemes.

connection, so they really do make a difference to the lives of people living in those areas.

Finally, we are proud of our longevity in the marketplace as a respected organisation delivering high value, appropriate, effective solutions and technical excellence.

**CAT: As one of the pioneers of renewable energy, what are the main changes you have seen in the sector over the past four decades?**

**RC:** The industry is constantly evolving, with new and more effective technology. There is also greater political pressure, both within the UK and globally, to reduce our reliance on fossil fuels and address the impacts of climate change. For example, public attitudes have changed significantly regarding both the visual impact of, and the need for, the infrastructure for installed renewable energy projects. Government policies and

support mechanisms have also changed significantly over the last decade.

In terms of technical changes, we have seen the physical growth of turbines, where economies of scale have driven wind energy to achieve huge progress towards lowering the cost of energy production, particularly offshore. The emergence of lithium-ion battery systems and the huge emphasis on energy storage is another feature of the evolving energy market, whereas previously energy storage was thought of as something that was limited to off-grid renewable power instead of being mainstream. Finally, it is impossible to comment on the changes in the sector without mentioning the revolutionary changes associated with the industrialisation of solar PV. More than any other technology, this has been the genuine game-changer for the renewables industry and represents a cornerstone of any worldwide decarbonisation strategy.

**CAT: How has the pandemic and subsequent lockdowns, followed by COP26 in November, affected people's views on renewable technology?**

**RC:** I'm not sure if the pandemic has affected people's views, but certainly the current context of rising energy costs and the focus being given to climate change by the UK government and internationally has. The public attitude towards renewable energy projects has been shifting positively for a long time, as reflected in the UK Government's Public Attitudes Tracker, and we have seen a much more positive response to large onshore wind projects through the consultation process. I imagine this growing support will continue as the cost of energy rises and the supply of energy from fossil fuels continues to be unpredictable. Unfortunately, the financial effects of the post-pandemic recovery process may have a knock-on effect on the level of funding put towards

incentivising more renewable energy.

Following the growing pressure from the public for the government to act to tackle climate change, there have been positive developments in policy. For example, in December 2021 the Welsh Government published recommendations on how to significantly scale up renewable energy in Wales. The UK Government published its 'ten point plan for a green industrial revolution' in November 2020 and then hosted COP26. However, the world has been very focused on the response to the pandemic, and there needs to be a renewed focus on installed renewable energy capacity to meet the ambitions of pledges made at COP26.

**CAT: What is needed for businesses like Dulas to help the UK address the climate crisis?**

**RC:** We need the UK and devolved governments to ensure that the right policy mechanisms are in place to support developers to implement projects that increase renewable energy capacity and address barriers to development, such as grid constraints for the onshore wind market in Wales.

As one of the pioneers of the renewables industry, Dulas has a proven track record of delivering renewable energy schemes that adhere to the principles of responsible development. Companies like ours have a huge amount of knowledge and capability to assist the transition away from fossil fuels, but the role of government cannot be overstated. The changes that are coming will need both the consistent application of policy, and recognition of those who are vulnerable to the costs of change.

**CAT: What's next for the UK renewables market?**

**RC:** In the medium-to-long term, we expect green hydrogen or derived synthetic fuels to receive more attention as possible energy carriers moving forwards. This is because it is difficult to imagine that batteries alone could address the challenges of seasonal energy storage requirements of a true net zero system. Dulas is currently researching the feasibility of hydrogen production from renewable energy sources in Wales.

Offshore wind is likely to continue its strong growth in the short term, but we would like to see more development in the large-scale onshore wind market, particularly within England where overall planning policy has been unfavourable for several years. Despite these barriers, we know that developers are pursuing potential sites for planning applications, and so we consider that to be a positive



One of the founding members, Research and Development Engineer Jo Gwillim (left), and David Elliot, Principle Technical Consultant, with Dulas' revolutionary SDD refrigerator.

sign. We would also support new investment and policy for additional hydropower within the UK because at present there are few incentives for such schemes to be built.

Alongside large-scale industrial development, we ought to mention that there are dozens, if not hundreds, of successful community-owned energy schemes that are both planned and in operation today. With the modularity and flexibility of the new technologies and information (and funding) available to help communities develop their own schemes, it has never been easier for small, independent organisations to access renewable energy. In particular, Dulas has worked with several community groups using the Rural Community Energy Fund to establish a variety of solar, wind or hybrid projects in the last five years.

**CAT: What can you tell us about your key projects for 2022?**


**RC:** We have several large-scale Environment Impact Assessments for onshore wind and solar that we are managing on behalf of clients, as well as working with hydro asset owners on projects to optimise the energy they get from their turbines. In addition, we are undertaking many complex wind monitoring projects using meteorological masts and remote sensing equipment for early-stage wind projects. We are also working with high energy users (such as factories and public bodies with high energy demands) to offset their energy use through integrated renewables (including battery storage).

In terms of new products and services, we are currently testing our prototype electric vehicle charger for the off grid/weak grid market at our headquarters. The charger combines solar energy and battery storage to provide charging

capacity for areas with grid constraints.

We are also researching the feasibility of hydrogen production in Wales using renewable energy sources. This research has been funded by the Welsh Government HyBRID programme.

**You're also a CAT graduate - can you tell us a bit about your studies and the impact they've had?**

**RC:** I have always had an interest in environmental issues, ever since being introduced to the concept of sustainability at secondary school. I gained a BA degree in Environmental Management but then drifted away from the subject in my employment. I met some ex-CAT students who raved about the eco centre and the courses and as a result I ended up undertaking a Masters in Advanced Environmental and Energy Studies. The course was very stimulating and the whole experience was a lot of fun! For my thesis, I examined public opposition to onshore wind farm development in the Mid Wales area, gaining a lot of knowledge around the challenges facing the development of onshore wind sites. As I neared the completion of my studies, I saw a job advertised with Dulas Ltd working with the Wind Monitoring team. That was over 10 years ago, and I have since worked across the company in various roles. For the last three years, I have been the Managing Director which is hugely rewarding. CAT is responsible for giving me the knowledge and passion to find a very fulfilling role within the renewables industry! 

**Find out more**

For more information on Dulas visit their website [www.dulas.org.uk](http://www.dulas.org.uk)

You can read more about a range of renewable energy technologies on our Information Service webpages at [www.cat.org.uk/info](http://www.cat.org.uk/info)



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# Helping small businesses engage with climate action

**Dr Anna Bullen**, from our Zero Carbon Britain team, explains how recent Innovation Labs have been creating a template for engaging local businesses with climate action plans for the area.



Local businesses in Shropshire have helped inform the Shropshire Climate Action Group.

To tackle complex problems like climate change, we have no choice but to innovate. We need solutions that work across a range of interacting areas; solutions that not only offer technical fixes but also help overcome political, cultural, economic and psychological barriers. An Innovation Lab offers a tool to design and implement the solutions needed to face this complex challenge.

Innovation Labs take a variety of forms, but essentially use experimental and participatory methods to tackle complex issues or challenges. Solutions to those problems are then co-designed, prototyped and implemented.

In the Autumn 2021 edition of *Clean Slate*, Kevin Oubridge introduced readers to the Shropshire Climate Action Partnership (SCAP) and their ambitious plans for achieving net zero by 2030, largely based on CAT's Zero Carbon

Britain research.

Early last year we had a conversation with members of SCAP about their progress and what areas they were finding most challenging, with a view to supporting them through the delivery of an Innovation Lab (see box). After some discussion, we settled on a key challenge: how to better engage businesses across Shropshire in SCAP's climate action plan.

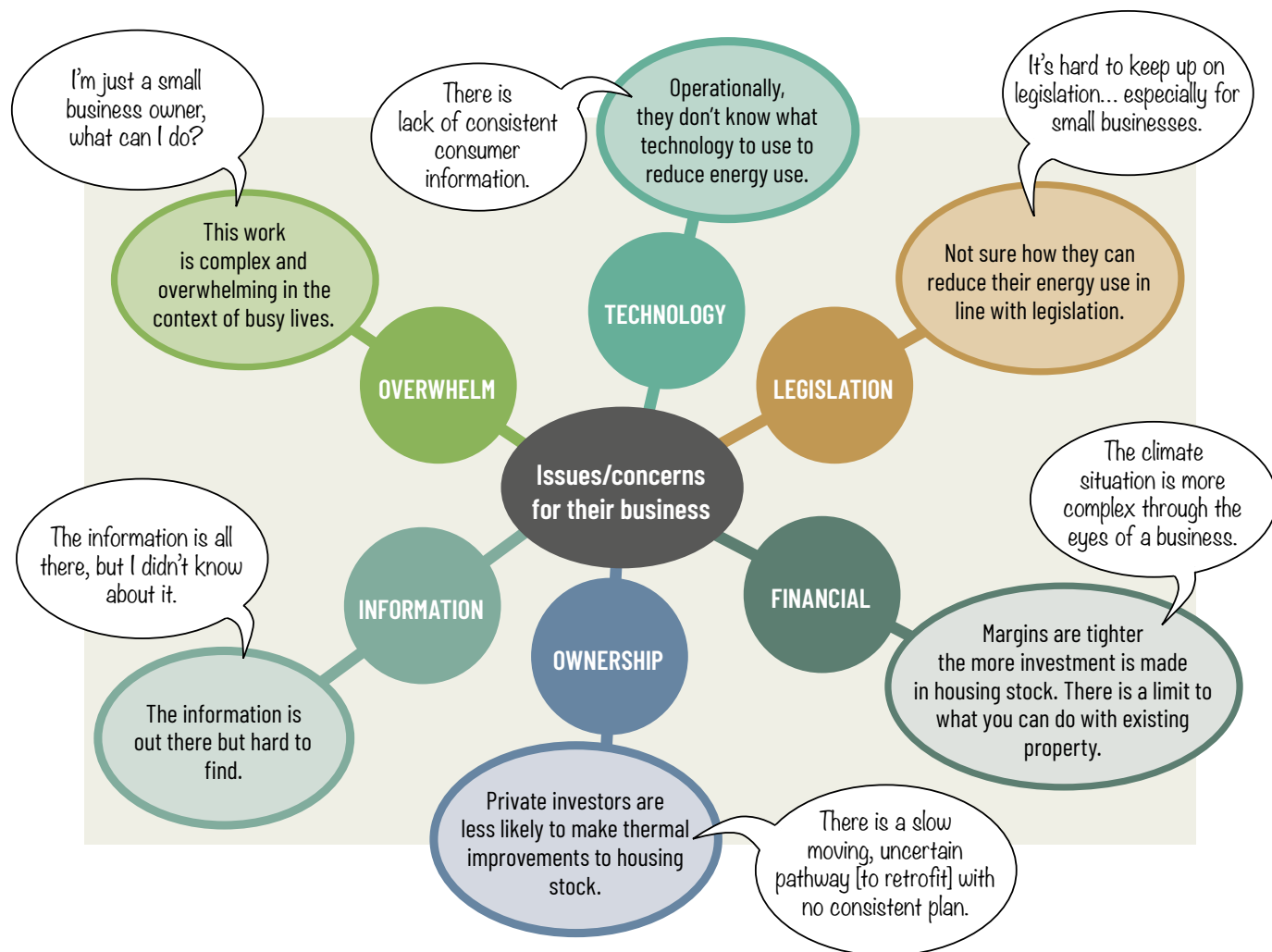
This was not going to be one of our regular labs though. We ran this one in conjunction with our Graduate School of the Environment, supporting our Masters students in their Action Research module, in order that the students could gain 'real life' insight into a lab process and learn some of the central skills for running a lab. Senior lecturer, Dr Ruth Stevenson, and six students embarked on the lab, alongside myself and members of the SCAP Enterprise Working Group (EWG).

## The process

The Innovation Lab set out to explore the barriers and opportunities for local businesses to engage with the SCAP EWG and their Zero Carbon Shropshire Plan. We used a series of workshops to understand the complex challenges associated with engaging local businesses in climate action.

The process invited representatives from 14 small and medium enterprises (SME) (three of which were represented by SCAP members) to co-design potential solutions to the barriers businesses currently face. This way, SCAP would be able to better engage and support businesses in Shropshire to tackle the climate emergency.

The 14 SMEs represented a diverse range of sectors across Shropshire, including business management and consulting, waste management, retail, recruitment, hospitality, tourism and



Examples of themes emerging in relation to participants' concerns for their businesses in relation to climate change. These themes can become barriers to change.

public services. Through a series of three participatory workshops, attendees addressed the following key aims:

- To understand the current situation in terms of businesses' primary objectives and where environmental objectives fit within that context;
- To understand the barriers the businesses face in relation to addressing the climate emergency;
- To understand the opportunities and interventions that could overcome those barriers;
- To inform SCAP EWG's business plan and enable them to better support businesses in Shropshire

We ran the first two workshops in one very intensive week, with the first producing a huge quantity of data that was then analysed, the results from which then informed the second workshop. Following this, we again analysed all the data from the first two workshops and presented a set of recommendations to SCAP. From these recommendations SCAP re-designed their plans for engaging businesses, and in our third workshop the businesses were invited back to review their plans.

## What did we find?

### Living and working in Shropshire

Due to the strong sense of community, beautiful environment and central location, Shropshire was seen as a good place to own a business, with this perception influencing receptivity to engaging with the climate agenda. Tapping into the value of place and community is always a good starting point in these processes as it forms a good foundation for the rest of the process.

### Concerns about climate change

Data collected during the workshops suggested all stakeholders were concerned to some degree about the impact of climate change. Key concerns included how their businesses would adapt, and how their businesses would respond to climate change legislation. However, some businesses were already exploring new revenue opportunities as a result of the climate emergency, and others were planning to.

### Barriers to engagement

The main barriers identified by the SMEs to engaging in climate action were: poor information flows, financial concerns, a lack of understanding of the available

technology, lack of action by decision makers, the complexity of the issue, and feeling overwhelmed and powerless regarding what actions to take (see Figure above).

Many of the enterprises noted commercial pressures, for example, from unviable margins in upgrading housing stock, causing a sense of 'battling to survive'. The climate crisis was noted as adding to this burden, with feelings of confusion, futility and becoming overwhelmed as a result.

One participant stated, "I'm just a small business owner, what can I do?" Others expressed frustration about finding the right information from the right sources as well as systemic limitations such as health and safety inspections failing to recognise the efficacy of eco-products, siloed thinking, affordability and outdated legislation.

Poor information flow was identified as one of the most significant barriers, with underlying causes including: narrow government focus on regulation, lack of climate education and skills, siloed thinking and action, lack of trust and a lack of positive stories or examples to follow.



## Overcoming the barriers

We worked directly with participants to understand more about the barriers they had identified and how they might be overcome, and in particular, how SCAP could support the businesses in overcoming such barriers. Based on this, we developed a set of recommendations for SCAP as follows:

- The strong sense of community among stakeholders presents an opportunity to drive change through sharing existing actions. Fostering this sense of community could enable more co-ordinated climate action.
- Stakeholders indicated a need to share stories, advice, networks and positive actions. As some businesses are already taking positive action, SCAP could play a role in supporting network-building across Shropshire to spread the reach and impact of these positive actions. Sharing these positive stories could help show that a rapid reduction in emissions is possible, driving further change.
- SCAP could help overcome challenges around poor information flow by providing a central knowledge platform, alongside assisting in understanding legislation and acting as a networking hub. This could also increase trust in information and ensure information is accessible to everyone.
- Participants recommended SCAP create regular platforms for discussion and cross-sectoral learning which filter information from central government down to councils and residents.
- SCAP should play an active role as an intermediary influencing local government and increasing public awareness of climate action.
- Participant feedback highlighted access to information as a key need. This should include business specific contexts, across different sizes and types of business, and covering all aspects of business operations.
- Whilst carbon footprinting tools can serve a purpose, participants felt that they could be time consuming and distract from the action required – businesses would prefer real actions that will make an impact.
- Recognition schemes, whereby SMEs are rewarded for their efforts, can be effective, especially for smaller businesses that make up most Shropshire enterprises. Schemes are usually aimed at bigger organisations, however, so if SCAP were to pursue this idea they should take this into account.

## What is an Innovation Lab?

Climate change is a complex problem, the implications of which affect everyone, albeit to different degrees. Such complex problems, which include multiple stakeholders with intertwining and often contradictory interests are known as 'wicked' problems, with no obvious single root cause or solution. Wicked problems, such as climate change, are everyone's problems – they are no single stakeholder's responsibility, and they require multiple stakeholders to address them effectively.

## Next steps

The SCAP EGW is now in a much stronger position to effectively engage SMEs with their climate action plan. Their business plan has been updated to reflect the recommendations that came out of the Innovation Lab, with key actions that respond to the identified barriers underway, as follows:

### Poor information flow

- SCAP have designed an SME Carbon Literacy Course certified by the Carbon Literacy Trust and delivered by Simply Sustainable. SCAP EWG is also building collaborations with other Carbon Literacy Trainers in the county to scale up delivery.
- A new charity has been established, Save our Shropshire, to provide Carbon Literacy accredited courses for householders and Parish and Town Councils.
- SMEs are being encouraged to share positive stories on the Common Place Platform (a collaborative platform provided by Shropshire Council).

### Lack of understanding of available technology

- SCAP's 'Cool Shropshire' carbon footprinting tool for SMEs has been sponsored by Shropshire Council, so that 500 enterprises can use the tool for free in 2022. It was designed to avoid onerous reporting and provide insight into legislation and an action plan.

### Lack of action by decision makers

- SCAP EWG is encouraging organisations to set up self-managed networks with customers, suppliers and

peers, to be developed as a resource on the Zero Carbon Shropshire website.


### Feeling overwhelmed and powerless

- Carbon Literacy Training – to help SMEs be informed to make the right decisions for planning and action.
- Free 'Get Started Guide', so SMEs can take up small actions that won't cost the organisation, but gets them into 'learning mode'.
- SCAP EWG have developed the 'Cool Shropshire' tool, as mentioned above, and developed a model to show the key elements in a carbon reduction strategy.

### Lack of sector specialism

- SCAP have been recruiting sector specialists to reach and support specific audiences.

This has all been achieved in the last 6 months entirely by volunteers; Shropshire Climate Action Partnership set themselves an incredibly challenging goal and are well on their way to achieving it.

Sue Burnell, who coordinates the SCAP EWG and runs Accelerated Success, said: "The remit of our working group was to understand the barriers to SMEs engaging with sustainability and starting their zero carbon journey. However, we didn't have the expertise to carry out the necessary research. Participating in the lab was fun, thought-provoking, challenging and provided the research capability we lacked. The facilitation process allowed us to focus on answering the research questions without worrying about what to do with all the information. CAT analysed the data and fed it back to us in key themes via a workshop and report. The process accelerated our work and enabled us to go from start-up working group to action planning within 6 months." 

We would love to hear what you are doing in your communities to address the climate and biodiversity emergencies, do drop us a line at [zcb@cat.org.uk](mailto:zcb@cat.org.uk)

### About the author:

*Dr Anna Bullen is the Zero Carbon Britain Innovation Lab Manager. She has a degree in Environmental Management and Resource Development, an MA in Space, Place and Politics and a PhD in Sustainable Citizenship. She is experienced in facilitating processes that bring together a wide range of stakeholders with diverse views and supporting them to move forward in developing solutions.*

# What joining the Beyond Oil and Gas Alliance means for Wales

Wales is to be congratulated for signing up to the Beyond Oil and Gas Alliance (BOGA) at COP26 at the end of last year. Coalitions and alliances such as these have a powerful role to play if we are to deliver on the Paris Agreement. **Paul Allen**, from our Zero Carbon Britain team, talks us through the recent history of climate coalitions and why signing up is an important step for Wales.



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In 2015, the UNFCCC Paris Agreement surprised many of us by agreeing to a legally-binding climate target that was more ambitious than most people expected. On 12 December 2015, it was adopted by 196 Parties at COP21 in Paris, entering into force on 4 November 2016. The primary goal of the Paris Agreement is to limit global warming to well below 2°C, preferably to 1.5°C, compared to pre-industrial levels.

A key player in bringing this landmark decision to life was the High Ambition Coalition (HAC), formed by the Republic of the Marshall Islands in the months leading up to COP21. Countries, both developed and developing, met to discuss their shared view that the world had to do more to tackle the climate crisis. They explored common positions, messaging and strategies that would help convince other countries of the need to be more ambitious in their actions to cut emissions.

By the time COP21 opened in Paris, the crucial seeds had been sown. The momentum behind the HAC grew from a group initially composed mainly of ministers representing vulnerable countries to one with increased engagement from large emitters. As the Paris Agreement was drawn up, the HAC comprised over 30 ministers, representing groupings of about 100 countries. The Coalition played a key role in the ambition of the 1.5°C target outlined in Paris.

### Beyond Oil and Gas Alliance

As the UNFCCC process moves beyond COP26 in Glasgow, there is a role for another coalition to build on the growing recognition that we must leave fossil fuels in the ground to keep warming below 1.5°C. Co-chaired by the governments of Denmark and Costa Rica, the Beyond Oil and Gas Alliance (BOGA) is a new international coalition, working to encourage national commitments to phase-out oil and gas production.

Much of the focus at recent climate negotiations has been on ending the use of the dirtiest fossil fuel – coal. But the BOGA aim to raise the profile of the need to transition away from all fossil fuels, not just coal. They highlight the need for the phasing out of oil and gas production to be included in international climate dialogues and for increasingly ambitious national commitments.

At COP26 in Glasgow, this innovative alliance of governments publicly launched their commitments to move beyond oil and gas. The two initial governments of Costa Rica and Denmark were quickly joined by six more ‘full members’ – France, Greenland, Ireland, Quebec, Sweden and Wales.

Each full member agrees to end new licensing for oil and gas exploration and production, with end dates for production on existing sites aligned with the Paris Agreement and keeping temperatures below 1.5°C.

California, New Zealand and Portugal became associate members, and Italy joined as a ‘Friend of BOGA’. There are reports that conversations are being had with other countries interested in signing up, including Scotland.

To keep things rolling, the International Institute for Sustainable Development (IISD) has been appointed as the first permanent Host of the BOGA Secretariat.

### Towards a just transition

Joining BOGA doesn’t mean ending fossil fuel emissions overnight. The alliance will have to work together to figure out how to balance supply and demand using renewables in a socially just and equitable way.

Speaking at the COP26 launch, Danish climate minister Dan Jørgensen said:

*“BOGA should also be a place where we can discuss the strategies of actually accomplishing a stop of oil and gas because I think we all agree that a transition needs to be a just one.”*

*“In Denmark, we made this decision, but it hasn’t been an easy one. It’s an expensive one, and it affects a lot of people. It’s important to invest in the parts of our country that are affected – this means schooling, training, re-employment of people working in the sector while scaling up offshore wind, which already employs 30,000 people.”*

### What this means for Wales

Powers over licensing for oil and gas exploration and extraction in Wales on land, intertidal areas, estuaries and coastal inlets were devolved to the Welsh Government under the Wales Act 2017, while what happens further out at sea is under the jurisdiction of the UK Government.

As part of joining BOGA, the Welsh Government has committed to ending any concessions, licensing, and leasing rounds for oil and gas production and exploration, and has said it will set a date to end production and exploration where it has the powers to do so.


Although there’s a low potential for conventional oil & gas in Wales there was thought to be fracking potential, yet to-date the Welsh Government has opposed it, and these commitments reinforce that.

Wales has also said it will aim to “work to expand the membership and elevate the issue of oil and gas production phase-out in international climate dialogues.”

Whilst oil and gas extraction doesn’t play a major role in the Welsh economy, membership of BOGA is an important signal of intent. On the launch of the alliance, Lee Waters, Deputy Minister for Climate Change, said: “Our vision is for a decarbonised energy system which provides wider economic and social benefits for Wales than the system we see today and we believe that replacing fossil fuels with low carbon sources will help Wales create the industries and jobs of the future.”

### A step in the right direction

Jointly, the BOGA members represent only a tiny proportion of emissions from oil and gas, but it’s an important first step and a clarion call to all nations. As a coalition grows, it builds momentum and attracts other nations to sign up. The BOGA is the first time governments have committed to working together to transition away from oil and gas production.

Let’s hope many other nations, especially those which joined the High Ambition Coalition, sign up, helping build the urgent momentum needed for COP27. 

### Coalitions help forge the way

In addition to BOGA, there are other treaties and agreements aiming to phase out fossil fuels. Here are two to watch:

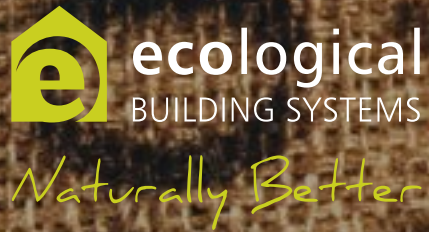
#### Fossil Fuel Non-proliferation Treaty

This is a global treaty to phase out all fossil fuels while supporting a just transition. Over 1,000 organisations, including CAT, have endorsed the Treaty, and awareness of the need for fossil fuel non-proliferation increased rapidly in the run-up to, and during, COP26. They are now looking to Stockholm+50 in June, when they hope to get their first country endorsement and a negotiating mandate for a Fossil Fuel Treaty. This will be followed by COP27 in Egypt this November where more countries could sign up and legal and political pathways towards the Treaty will be more developed.

#### Powering Past Coal Alliance

Members sign up to move from coal, the dirtiest fossil fuel, to clean energy sources. They are also aiming for a global moratorium on new coal power stations soon. 28 new members signed up at COP26, taking membership to over 100 national and subnational governments, organisations and businesses. Recent rapid progress means the end of coal may be in sight, and political momentum is accelerating the end of this fossil fuel.





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# CAT STORIES

CAT's community of members, supporters, graduates, students and volunteers are truly inspiring. People just like you are making a real difference as they tackle the climate and biodiversity emergencies in a variety of ways. Here are some of your fellow changemakers – make sure to get in touch and tell us your CAT story!



**Dr Sue Holland**

Dr Sue Holland, originally a botanist, runs Creative Beings, along with co-founder Martin Staniforth. They are a small community social enterprise that connects creative practice with the natural world. Having first visited CAT during a trip to visit family in South Wales in the late 1970s, Sue became a member a few years ago after CAT came back onto her radar when she wanted to know more about living sustainably. Recalling her first visit as a young teenager, she remembers the sense of visiting somewhere special, where people lived off-grid, outside the prescribed way of doing things and were showing how to live sustainably.

For the past ten years, her family have been custodians of a lovely small wood in Devon. More recently, they are in the process of planting a one-acre agroforest and growing vegetables using organic and permaculture principles. Creative Beings focuses on creative practice, sustainability and wellness, so they are planting the agroforest with this in mind. They hope the agroforest, can be a legacy project, passing the wood

itself and the food they grow, including liquorice, cranberries, saffron and allspice, on to future generations.

*"I am a CAT member because I believe that as an organisation, CAT has many solutions and answers to the environmental and climate problems that we face. Having been experimenting with solutions for sustainable living for longer than most, it is a centre of excellence and deep experience, of which I'm proud to be a member."*

[www.creativebeings.uk](http://www.creativebeings.uk)



**Robin Duval**

Robin graduated in 2020 with an MSc in Sustainability and Adaptation from CAT's Graduate School of the Environment. They currently work for a cycling social enterprise, Bike for Good, delivering cycle training and leading rides to improve participant's physical and mental health.


Climate action and social sustainability have always been close to Robin's heart, and over the past 15 years they've been involved in climate campaigning, community renewable energy and food and housing co-operatives.

Having originally studied

environmental art, they decided to retrain, completing a BSc in renewable energy engineering. Their undergraduate dissertation focused on different models of community ownership of renewable energy projects. Having previously worked for a health food cooperative, Robin was interested in how community renewable energy cooperatives could provide democratic systems for alternative energy and finance. They worked in this field for a couple of years and became more involved in environmental campaigning. After working for a DIY renewable energy cooperative that taught 'build your own wind turbine' courses, Robin decided to begin studying again, at CAT.

*"The flexibility of the MSc programme enabled me to remain involved in environmental activism by volunteering with Greenpeace, taking part in direct action calling for a socially just and sustainable future."*

*"I think the futuring and work-based modules had the most impact on me. They've given me the tools and resilience to find a proactive path forward, whatever challenges come my way. I feel more confident in taking leadership on issues I care about and am more open to opportunities to collaborate with others to achieve a broader impact. I've learnt a lot about what habits and routines contribute to a productive working day and have impressed my new workplace with what I can achieve when working independently. I feel more able to manage a heavy workload, prioritise tasks and mitigate stress. I've also developed a lot of skills in report writing and consolidating in-depth research."*

Robin continues to work with Bike for Good and was inspired by the coaches on Climate-KIC's 'The Journey', which they took part in for the work-based module. They would, in some way, like to follow in the coaches' footsteps by facilitating group processes to develop pathways towards a sustainable future. 

Please get in touch to tell us what you are doing – we love to hear about your work, the groups you are forming and how CAT's practical work is guiding and inspiring you. Contact [members@cat.org.uk](mailto:members@cat.org.uk) with your CAT story.

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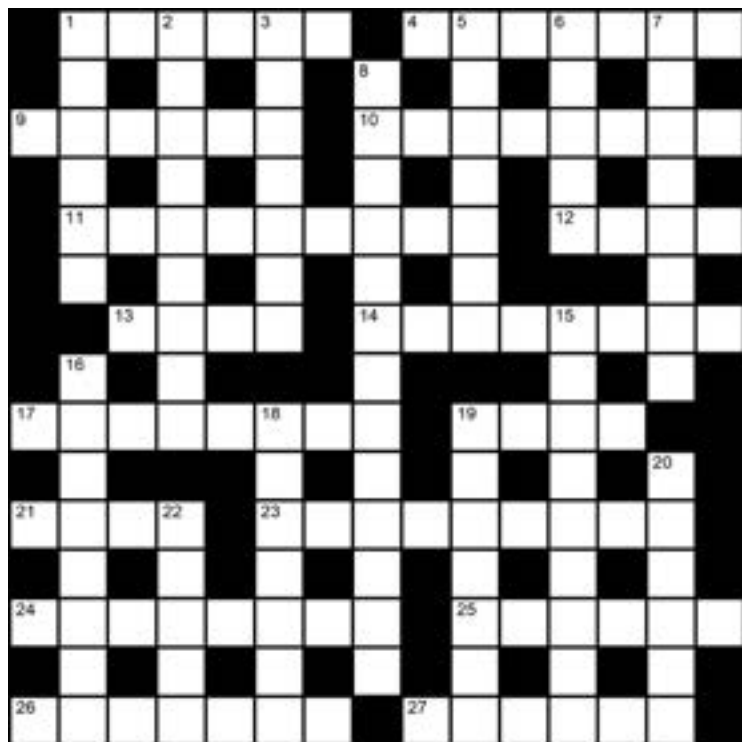
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Solution will be published in the next issue of *Clean Slate*.

122 winner: **Andrea Rudge**

## Across

- 1 Parent that's one of a kind (6)
- 4 Wealthy East German, formerly a land speed record holder (7)
- 9 Working out round fare from Italy to city 500 miles north-east of Milan (6)
- 10 Being on the edge – that could become alarming (8)
- 11 Delegate not in church – gulping bitter (9)
- 12 Drifts off course – going in the wrong direction? (4)
- 13 Hawk spotted fish right away (4)
- 14 Con-merchant wants five hundred for a chair (8)
- 17 Quartet, tired by the sound of it – let them know sooner rather than later (8)
- 19/27 They were tempted to pick Eden Hazard? (4,3,3)
- 21 Detective starts to scrutinize criminal record (4)
- 23 Good preener – I fancy! (9)
- 24 Armed cops are back, that's kind of rum (8)
- 25 It's undeniable Aguerro exudes class (6)
- 26 It's laughable! England's two openers fall before third delivery (7)
- 27 See 19
- 3 Make regular repair to venue (4,3)
- 5 Encourage son to go ahead, and see doctor (7)
- 6 When showers are pronounced, as a rule? (5)
- 7 Winner who can be patronising (8)
- 8 Armed with in-camera trickery create a fantasy world (8,5)
- 15 Waste area cited as a problem (9)
- 16 Female beginning to relax without explosive boss around (8)
- 18 Father turned up with sort of pudding to satisfy demands (7)
- 19 National breakdown company grapples with unusually long disruption down south (7)
- 20 Rubbish iron gets sent back – sure ruined trousers (6)
- 22 Worm count goes up after a bit of composting (5)

## Down

- 1 Damage racket playing squash? (6)
- 2 What's found in top, right up in the air over centre of arena! (9)

## Clean Slate 122 Solution



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## ARE YOU A CAT SUPPORTER AND A UK TAXPAYER?

If so, we can claim back the tax you have paid on the money you have given to support CAT's work. All you need to do is complete a Gift Aid declaration, at no additional cost to you.

Thank you so much for the support you give to ensure CAT can play our vital role in the transition to zero carbon. Your Gift Aid declaration could ensure your support is worth even more.

Call us on **01654 705988** or email [members@cat.org.uk](mailto:members@cat.org.uk) with any questions or to make your Gift Aid declaration.

# A gift for the future

## Freya Randall, Fundraising Manager

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Talking about legacy giving can be difficult for all of us. The topic can feel emotional, awkward or instinctively off-putting. There's no doubt that planning for the end of our lives confronts us with the impermanence and preciousness of what we hold closest.

However, it is a subject that we cannot afford to shy away from at CAT. The scale and urgency of the climate and ecological crises require us to have conversations that are upfront, brave and honest.

We are witnessing the fragility of our planet increasingly close to home, through flash flooding and one of the mildest winters on record. If 2021 showed us anything, it is that we cannot wait for those in power to take the lead in reducing emissions and limiting warming.

There is mounting pressure on all of us to act now, for the future of humanity. This can be a difficult weight to bear as individuals. It can be a struggle to reconcile our current needs and priorities with our deeper values and an awareness that we can always 'do more' for the planet.

We must concede that the journey to a Zero Carbon Britain is complex and requires long-term thinking, balanced with near-term action. This is why legacy giving is unique and so vital for our work. In 1987, the United Nations Brundtland Commission defined sustainability as "meeting the needs of the present without compromising the ability of future generations to meet their own needs." Having cared for family and friends in your

Will, leaving a gift to CAT offers security for the future of the planet, and it does this without expending any assets during your lifetime, should you not feel able to afford this. Investing in CAT's future will not only create a lasting impact for the natural world but also for loved ones who will live on to experience a changing climate.

In many ways, a legacy gift is an investment in the future. At CAT, we are paving the way to zero carbon through practical training, education and the development of actionable solutions and technologies. CAT is a community of people set up to take immediate action, with the necessary tools at our fingertips and an ambitious strategy built on five decades of pioneering research. We know change is possible and as a member or supporter, you are a key part of this.

I'm aware there are both hopes and concerns around legacy giving. If you want to call for a brief chat with me, I'm happy to listen and reflect on your concerns, without pressure or expectation. There are never any obligations to take anything further, and I'm here to answer any questions you might have.

Leaving a gift to CAT in your Will is one of the most useful ways you can support our work and our beautiful planet. CAT relies on donations from our members and supporters to continue reaching people with the solutions to the biodiversity and climate crises.

Feel free to reach out to me on [Freya.Randall@cat.org.uk](mailto:Freya.Randall@cat.org.uk) to find out more. 







### Seedball Tubes; £5.00 each

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### Bee Print Lunch Bag; £5.00

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### Bamboo fibre compost bin; £25.00

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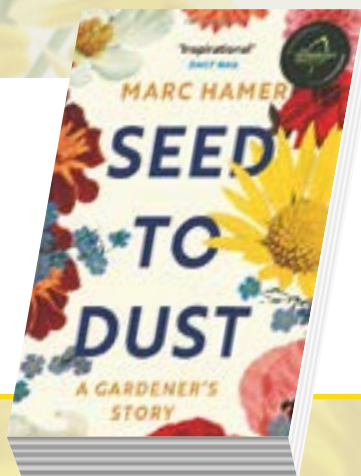
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