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FOR ENVIRONMENT AND SUSTAINABILITY PROFESSIONALS

June 2020
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JUNE 2020

Upfront

04 Comment

Martin Baxter explains how IEMA is pushing for a sustainable recovery post-COVID-19

05 Industry news roundup

08 IEMA news

IEMA's response to the BS 8950 draft; new digital impact assessment *Outlook Journal*

Regulars

10 Legal brief

Regulations, consultations and court news

24 The big question

Is the meat industry at a crossroads?

29 Coronavirus today

David Burrows on the UK's COVID-19 recovery options

Connect

33 Community news

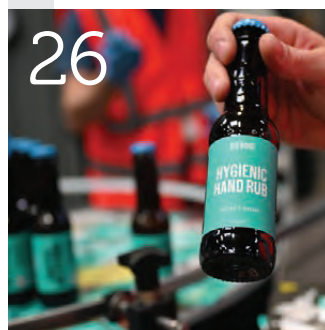
Employability skills webinar; Quote unquote

34 Member profile

Duncan Oswald, FIEMA CEnv, senior consultant at Eunomia Research & Consulting Limited

Awards spotlight

- 32 Kyle MacNeill and David Gray of Northern Rail on winning the Best Workplace Development Award at the IEMA Sustainability Impact Awards 2019



FEATURES

12 Interview: Rebecca Willis

The Lancaster University professor on the importance of boosting the public's voice

15 Opinion

Robert Blood looks at how COVID-19 has affected environmental campaigning

16 Biodiversity

We need more data on insect decline, say Tim Newbold and Charlotte Outhwaite

19 Resources

Chris Stapleton's improved method for monitoring developments' impacts on soil

20 Mitigation

Better land management can reduce soil degradation, says Bruce Lascelles

22 Agriculture

Tim Lang talks to Huw Morris about the UK's disastrous food supply model

26 CSR

David Burrows investigates companies' varying responses to the COVID-19 crisis

30 Standards

Rick Gould shares how China's eco-city projects have helped shape global standards

Web exclusive

Forewarned is forearmed

Sally Best on the eco issues that led to COVID-19
bit.ly/3cviQcw

IEMA is the professional body for everyone working in environment and sustainability. We provide resources and tools, research and knowledge sharing along with high quality formal training and qualifications to meet the real-world needs of our members. We believe that together we're positively changing attitudes to sustainability as a progressive force for good. Together we're transforming the world to sustainability.

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MARTIN BAXTER, IEMA CHIEF POLICY ADVISOR

Working for a new normal

The world has been transformed in an incredibly short period of time as a result of COVID-19; my heart goes out to those of you who have been directly or indirectly affected by the disease.

The economic impacts are having significant impacts on members, with many being furloughed, working from home, or finding themselves with no income because they are self-employed, or have lost their job. We've put measures in place to support you if you're finding it difficult to pay membership fees, and I encourage you to get in touch with the membership team to discuss the options, if necessary.

We're working with different parts of government (including the Treasury, Defra and the Department for Business, Energy and Industrial Strategy) and with key business sector bodies to ensure that the future 'new normal' will be better than the old ways of doing things. IEMA's message is simple – build back better, and put sustainability at the heart of the recovery.

This means accelerating the transition to our net-zero climate target, enhancing organisational and supply chain resilience, and investing in green jobs and sustainability skills. We must also 'lock in' the benefits of the deeper community connections that many people have developed during the pandemic. It is vital that government underpins the improvements we're seeing to our natural environment (better air quality, lower carbon emissions and so on), with businesses receiving support on the condition that they make environmental and social commitments.

The coronavirus pandemic hasn't altered the science of climate change, the plastic waste crisis hasn't gone away, our natural capital and biodiversity continues to be degraded, and our resilience to flooding is unchanged. If we're to address these significant challenges, we need to use this period of change to create a sustainable future.

"We must 'lock in' the benefits of the deeper community connections that many people have developed during the pandemic"



AGRICULTURE

Farming technologies could slash emissions by fifth

Global emissions from agriculture, forestry and land-use change could be slashed by a fifth via 25 proven farming efficiency technologies, suggests a report by McKinsey & Company, *Agriculture and Climate Change: Reducing emissions through improved farming practices*.

The influential consultancy firm said that other sectors have successfully identified technologies to dramatically cut their emissions, but these options aren't necessarily suitable for agriculture. The industry also has additional environmental and social objectives to consider that others may not, such as biodiversity, nutrition need, food security and the livelihoods of farmers and farming communities.

However, McKinsey found that 25 emission-efficient farming technologies and practices could achieve 20% of the sector's required emissions reduction by 2050. Moreover, the top 15 measures by abatement potential would contribute 85% of this emission cut, and touch four major categories: energy, animal protein, crops, and rice cultivation. Zero-emission on-farm machinery and equipment, greenhouse gas-focused genetic selection and breeding, and improving rice fertilisation processes are the top three practices identified.

"The agriculture sector has a complicated set of objectives to consider alongside climate goals, but

it's not impossible," the report states. "In the course of human history, agriculture has responded to humanity's greatest challenges – the sector has increased food production to a level that many believed impossible. The sector now has an opportunity to make yet another major contribution to humanity's success during this crucial window for action."

Improved animal health monitoring and illness prevention, an optimal animal feed mix, and expanding technologies that increase livestock production efficiencies are also among the top 15 practices outlined in the report.

For each measure identified, a bottom-up assessment of mitigation potential and cost was calculated using a synthesis of available literature, comparison across models, and discussions with relevant experts and practitioners. The level of uptake and implementation was assessed to be "as ambitious as possible" while also being aware of the potential economic and non-economic barriers to implement across regions, farm scales and production systems.

"This analysis is distinctive in both its breadth and depth; our goal is to provide concrete guidance for policy makers, agriculture players, and academics alike to spur the necessary change in the agriculture sector," the report states.

Read the full report at mck.co/3fL6UVR





POLICY

COVID-19: Public prioritises environment over GDP

Less than a third of UK citizens would like the government to prioritise economic growth over the environment when responding to the coronavirus pandemic, a YouGov survey has revealed.

The polling of more than 2,000 adults found six in 10 believe the UK should prioritise social and environmental outcomes. Just 31% favour economic growth, with 8% unsure. When asked to choose between GDP and health and wellbeing, 82% of respondents opted for the latter.

This comes amid fears that environmentally unfriendly policies could be favoured once the COVID-19 pandemic has passed, with various political, financial and charitable groups calling for a green recovery. Campaigning group Positive Money, which commissioned the latest polling, urged the Office for National Statistics to stop publishing GDP stats and instead place more emphasis on environmental and social indicators.

"The government must not be tempted to pursue policies that would boost GDP at the expense of lives, wellbeing and the environment," said Positive Money executive director Fran Boait. "With the coronavirus crisis hitting after a decade of anaemic economic growth, we are heading towards a 'post-growth' economy."

"We have a choice of whether this will mean mass unemployment, deepening inequality and lower quality of life for all, or whether we want to ensure that people are able to live longer, happier lives while avoiding catastrophic climate collapse."

REGULATION

Brexit: Environmental standards at risk

Environmental standards in the UK are at risk of becoming outdated because the government has removed review and revision clauses from retained EU laws since Brexit. This is according to a new report from the academic network Brexit & Environment.

After studying various 'retained' environmental EU laws, the researchers found that technical clauses to review and revise legislation had been removed for two-thirds of the laws via statutory instrument. This change, made at "relatively great speed" and "with little democratic scrutiny" has, the report's authors argue, escaped

the attention of many observers, including parliamentarians.

Environmental aspects of the regulatory 'level playing field' have emerged as a key sticking point during negotiating over the future trading relationship between the UK and EU.

There are around 500 separate items of EU environmental law and policy, and if these are not fully retained after Brexit, the researchers said it will produce a "massive gap" in UK environmental policy protection. They urged the government to insert review and revision clauses that are stronger than the originals, and to grant the Office for Environmental Protection stronger powers to oversee and report on the status of retained EU law.



BUSINESSWATCH



Slaughter and May is first SBTi-approved law firm

Slaughter and May is the first law firm to have emission reduction goals approved by the Science Based Targets initiative (SBTi).

The targets aim to reduce the company's absolute scope 1, 2 and 3 greenhouse gas emissions by 50% by 2030 from a 2018 base year, and to achieve net-zero – without the use of offsets – by 2042.

"We are committed to setting science-based targets in line with the reductions required to limit global temperature increase to 1.5°C," said partner Jeff Twentyman.

➔ bit.ly/3dlzN35



Lotus and Centrica to 'redefine' EVs

Motor manufacturer Lotus and British Gas

parent company Centrica will develop a new model for electric vehicle (EV) ownership that allows cars to store household electricity and cut emissions.

EV owners will also generate new income by providing services to the energy market under the plans, which Centrica said would "redefine" the customer relationship with cars.

"We see a future where the customer, car and home are connected, enabling new services beyond charging the car, and new products and experiences," said Centrica Innovations vice president Carl Bayliss.

➔ bit.ly/2yHwCKx



Greene King achieves zero-waste standard

Greene King is the first UK pub company to

achieve the Carbon Trust's Zero Waste to Landfill Standard after diverting all of its 1,700 managed pubs' waste from landfill.

The company also revealed that there has been a 42% reduction in the number of general waste bins across its entire pub estate over five years, and that it would cut its food waste by 50% by 2030.

"The work undertaken by Greene King to achieve the Zero Waste to Landfill Standard sets a benchmark for the hospitality industry," said Carbon Trust managing director Hugh Jones.

➔ bit.ly/3fHKuVK

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STANDARDS

IEMA responds to BS 8950 draft



In March, the British Standards Institution launched the draft version of *BS 8950 – Guide to enhancing social value*. The guide looks to inform those whose decisions affect social value, so that they can make better ones. It sets a general approach to the use of data for identifying opportunities to measure and enhance social value, and highlights links to approaches.

The draft guide was open to the public for comment until the beginning of April, and IEMA submitted its comments following engagement with members and external networks with expertise in the field. IEMA found that the guide underplayed the role of the private sector in contributing to the enhancement of social value, noting that it is a key player in the design and delivery of social value and best practice improvements.

Several terms were found to be missing from the definitions section; IEMA called for these to be inserted, along with a refinement of the definition of 'social value'.

The guide also introduced a section on principles; this covers the processes of determining social value, accounting for social value, and the analysis and use of social value information. IEMA found that the principles should mention the factors that the existing state is measured against, and highlighted that social outcomes should be clearly set out upfront as part of the planning stage.

A copy of the IEMA response, together with an explanatory blog by IEMA policy and engagement lead Marc Jourdan, is available at bit.ly/2LwiB4U. The final draft of *BS 8950* will be made available upon publication in October 2020.

PUBLICATION

Digital Impact Assessment Outlook Journal launched

Digital impact assessment (DIA) can be loosely defined as the use of digital technologies and approaches in impact assessment. In May, IEMA published the *Digital Impact Assessment Primer*, setting out what DIA is, why it is needed, and what opportunities and challenges it presents.

In May, IEMA launched the sixth edition of its *Impact Assessment Outlook Journal* on the topic of DIA in practice. It was written by the primer's authors to show how DIA and the primer's key messages are being delivered in practice.

The journal's eight articles cover a range of DIA experiences and best practice in aspects such as reporting,

consultation and data collection. It also offers advice on developing new digital products and processes, and insights into how the future of DIA is being explored.

The journal can be downloaded in PDF format at bit.ly/3cB1bzY, but also viewed on the DIA microsite, launched in May. This portal brings these *Outlook Journal* articles and the primer's key content together in a single, web-based location, where these materials and digital innovations can be demonstrated to best effect. This format also allows additional visual and interactive content to be presented alongside the articles.



NETWORKS

Climate Change and Energy Network

Many of us have been working hard to understand net-zero and how our organisations can best transition. Our pledge-based sector scheme (www.pledgetonetzero.org) with

the Society for the Environment and industry partners already has more than 40 signatories.

The approach is designed for inclusive participation; in April, IEMA

members Natalie Cropp, Joe Hague and Ryan Burrows presented three science-based reduction approaches for their own very different organisations, and afterwards answered an extensive list of questions. Members can access this Q&A document and the full webinar on the IEMA Watch Again pages (www.iema.net/resources).

Despite COVID-19, professional commitment to the climate emergency continues, with leading webinars and blogs on topics such as green power accounting, carbon neutrality and critical climate challenges such as cooling and adaptation. These can be found at www.iema.net/resources/blog

Finally, look out for our Climate Change miniseries in late June, kicking off with Committee on Climate Change CEO Chris Stark. Across the series, we will introduce new guidance on climate risk and address opportunities in areas ranging from low-carbon and renewables to climate change communication, with presenters from BAFTA, Futerra and the BBC.

Thank you to all members and guests supporting our programme.

Nick Blyth, FIEMA, IEMA policy lead



IEMA FELLOWS

Navigating COVID-19 as a climate change professional

As with most climate change professionals, this is not just a job for me. I care deeply about planetary health for people and ecosystems, today and in the future. To work on such a 'wicked problem' is motivating and frustrating. Solutions seem within our grasp, but people are distracted by legitimate and sometimes frivolous activities and thoughts.

Many in the profession have been wondering about COVID-19's implications for climate change. What will the impact on emissions be? Should I celebrate the breathing space Mother Nature has been given? Is my work plan still relevant? How can the recovery be 'green'? Will resilience to the COVID-19 shock build resilience to climate shocks? These and similar questions present a challenge to our collective efforts.

The climate news and blogosphere are full of information to help us navigate these questions. Sadly, 'fake news' does not seem to be socially distancing itself, so readers need to maintain a discerning eye. Make sure you understand the source and stick with science. One COVID-19 silver lining is that society's value of science is greater than ever. This should reinforce the message that urgent climate action is required.

While science-based, economic and financial arguments are necessary, they are not sufficient on their own. Climate professionals need to connect emotionally with audiences. At the time of writing, COVID-19 is the second biggest killer in 2020 after pulmonary disease; we cannot be tone deaf to the shock it has brought, even though emissions have fallen and are annually in line with what is needed to stabilise the climate. COVID-19 is the way the climate should be stabilised, and is not enough to solve the challenge. While we should analyse and report on changes in emissions

(and they are not going down for every sector), we need to be sensitive when it comes to *why* emissions are changing.

I've found the IEMA Code of Practice useful. This guides professionals to: advocate and apply high ethical standards, acting with integrity, honesty and objectivity; ensure equality of opportunity and respect diversity; and uphold the reputation of the profession. We are ambassadors and we need to expand the solutions to those less interested or able. In many ways, this challenge just got harder. However, COVID-19 has shown the potential of urgent collective, global action. So many facets of modern life have been reimagined. Creativity is blooming, and acts of collective compassion abound – from impromptu balcony operas in Italy to the protection of great apes in Africa and applause for care workers everywhere. We are witnessing some of the best of humankind.

This brings me to my last point: optimism. A healthy planet with a stable climate is the biggest opportunity in history to improve people's lives. Solar power and LEDs can reach millions who have no reliable access to energy or light. Electrified transport can rid our streets of air pollution. Retrofitted buildings are more efficient, smart and comfortable. Nature can be woven into urban planning to reduce floods and heatwaves, and boost mental health. Everywhere we look, there is money to be made or saved from climate action. We need to sell that.

Staying focused on the day job while navigating COVID-19 is no small task, but with science, standards, collective creative action and optimism, we can do it.

**Dan Hamza-Goodacre, FIEMA CEnv,
COP26 Climate Champions Team
member and steering group member
for IEMA's Climate Change Network**



SPENCER CLUBB

IEMA head of policy and practice

Environmental auditing

IEMA and a group of members have been working on new initiatives relating to environmental auditing.

Firstly, there is a new publication on the horizon which will focus on the value of environmental auditing. This is aimed at practitioners working in the field and those considering investing in or improving their internal or external audit programmes. It sets out a number of benefits, and shows that environmental auditing is an essential tool for tackling longstanding resource management issues and emerging topics such as climate-related financial disclosure and modern slavery.

Secondly, IEMA is reviewing the Environmental Auditor Register. IEMA has identified several areas for improvement that would make the register more valuable, and is working on some draft proposals to be shared with registrants and stakeholders.

Finally, IEMA has been working on sharing good practice advice for remote auditing. This began with a webinar in late April, and will be followed up by the collation of advice to members, drawn from the wider environmental auditing community.

I want to thank the Environmental Auditing Working Group for its generous contributions to these projects.

NEW REGULATIONS

THE LATEST

■ LEGISLATION ■ GUIDANCE ■ CONSULTATION



1 APRIL 2020

Landfill

The Scottish Landfill Tax (Standard Rate and Lower Rate) (No. 2) Order 2020 sets the standard rate and lower rate for Scottish landfill tax for disposals on or after 1 April 2020, and replaces an early order which was unable to be approved by the Scottish parliament.

cedr.ec/6vl


1 APRIL 2020

Energy efficiency

From 1 April 2020 under the Energy Efficiency (Private Rented Property) (England and Wales) Regulations 2015, landlords with "sub-standard" properties assessed at an EPC rating of F and G must improve the property rating to E or register an exemption if they want to continue to let it.

cedr.ec/6vn


15 APRIL 2020

Environmental permitting

Core guidance for those operating, regulating or interested in facilities that are covered by the environmental permitting regime has been updated. The main changes relate to Chapter 9, on Operator Competence.

cedr.ec/6vu


16 APRIL 2020

Net-zero

A Natural Capital Committee advice document aims to provide information and recommendations to the UK government on using nature-based interventions to reach net-zero greenhouse gas emissions by 2050.

cedr.ec/6vm


29 APRIL 2020

Pollution prevention and control

DAERA has set out details of a district council charging scheme under the Pollution Prevention and Control (Industrial Emissions) Regulations (Northern Ireland) 2013, in relation to permits for Part C activities granted under those regulations.

cedr.ec/6vo


20 MARCH 2020

Environmental permitting

The Environment Agency has produced guidance on operator monitoring assessments for environmental permits. It covers the whole process, how the quality of your monitoring procedures will be assessed and what you can do to prepare for them.

cedr.ec/6vp


16 APRIL

Climate change

The UK government is proposing to extend the Climate Change Agreements scheme by two years through the addition of a new target period. They would also extend certification for reduced rates of Climate Change Levy for participants meeting their obligations to 31 March 2025.

cedr.ec/6vi


28 APRIL 2020

Renewable heat incentive

BEIS is running two consultations around the closure of the non-domestic Renewable Heat Incentive and on the future for low-carbon heat, beyond the Renewable Heat Incentive.

cedr.ec/6vg
cedr.ec/6vf

➤ Around 18,000 tonnes of refuse-derived fuel were deposited and stored at the site in Stoke-on-Trent – over the limits allowed

INCOURT

IN COURT

Businessman fined £84,000 for breaching permit

The director of A Morrey Distribution Limited (AMDL) faces a bill of £84,000 for failing to comply with an enforcement notice requiring him to submit a fire prevention plan for a former permitted site at Garner Street, Stoke-on-Trent.

The 69-year-old from Madeley, near Crewe, was fined £1,000 for failing to comply with an enforcement notice, and ordered to pay £50,000 in prosecution costs and a confiscation order of £33,000. This is to be paid to the Environment Agency and will go towards ensuring the site is safe. A default prison sentence of 12-18 months could be triggered if the sum is unpaid.

The director had pleaded guilty to four offences in June 2017 and the company entered guilty pleas to four similar charges of breaching permit conditions,

contrary to the Environmental Permitting (England and Wales) Regulations 2010, between November 2014 and April 2016. There was no separate penalty for offences committed by the company due to its financial status.

The court heard that AMDL had been granted an environmental permit to store refuse-derived fuel (RDF) on a temporary basis at its Garner Street site. During 11 inspections between 2014 and 2016, Agency officers noted that bales of RDF were being stockpiled over the limits allowed. Around 18,000 tonnes of waste were deposited and stored in three different buildings across the site.

Some of the RDF bales were leaching a black liquid and giving off a foul odour. The bales presented a risk of self-combustion, with potentially serious consequences due to the site's proximity

to the A500 and the West Coast Main Line. Concerns were raised by the Agency, but the businessman failed to carry out any action to reduce the risk of fire, even after a suspension notice was issued. The permit was later revoked.

The judge noted that the breaches had occurred shortly after the permit had been issued by the Agency. He stated that the director had been "utterly stupid" to have entered into an arrangement with a third party to accept the bales without a proper written agreement.

Credit was given for early guilty pleas entered in 2017 by the company and its director, and the judge acknowledged that all parties had genuinely attempted to find a solution to enable the site to be cleared of all waste, and that this had delayed the conclusion of proceedings.

He reiterated that the businessman had been given every opportunity to comply with the regulations, but took no action. The Agency's responsibilities gave it little choice but to suspend operations at the site and pursue prosecution. The Agency is facilitating the sale of the site so it can be cleared.



CASE LAW

Application for judicial review of decision to continue HS2 rail project refused

In *Packham v Secretary of State for Transport* (2020), the claimant applied for judicial review of the government's decision to continue the HS2 rail project. He also applied for an interim injunction to prevent clearance works pertaining to HS2 in six ancient woodlands.

The case for HS2 was the subject of a public consultation in 2011. Following challenges in court, production of environmental statements, and publication of environmental minimum requirements, the High Speed Rail (London-West Midlands) Act 2017 was passed.

However, in August 2019, the secretary of state set up the

Oakervee Review to review whether HS2 should proceed. Clearance works affecting 11 ancient woodlands were put on hold. The review had to conduct a cost-to-benefit assessment in a short time and did not call for evidence. It was published in February 2020 and the government announced that it reinforced the need for high speed rail, resulting in the resumption of clearance works.

The claimant argued that the review process had: departed from its terms of reference; failed to recognise local environmental concerns; and failed to consider climate change issues. He also claimed

there was a legitimate expectation that the review would be carried out in accordance with the original terms of reference as they would have been understood by the reasonable reader, which had not occurred.

The judge stated that the claimant had taken longer than six weeks to apply for judicial review, and the application would have been refused on that alone. The allegations that the review had departed from the terms of reference had no realistic prospect of success and the local environmental concerns did not arise out of any changes in situation since

the 2017 Act was passed. There had been no failure to consider climate change issues and no undertaking or promise that the review would be carried out in accordance with the terms of reference as they would have been understood by the reasonable reader. Given that the claimant had shown no real prospect of success in any grounds of his challenge, his application for an interim injunction could not succeed.

The application was refused.



The democratic deficit

Rebecca Willis talks to Chris Seekings about politicians' failure to tackle the climate crisis, and why we need to redesign democracy

The COVID-19 pandemic has shown how radical political and economic choices can be made in times of crisis. Entire industries have come to a standstill, with flights grounded, social distancing enforced, the homeless housed and trillions pumped into economies worldwide. Scientists have long argued that drastic measures are needed to tackle climate change, too. However, many politicians have been reluctant to look beyond the status quo.

Author and Lancaster University professor in practice Rebecca Willis has been investigating the relationship between politicians and climate change for many years, looking at why MPs struggle to translate growing public concern for the environment into meaningful action. She believes that fundamental problems within the political system create barriers to progress, and that a democratic deficit must be overcome to ensure citizens' concerns are heard in the corridors of power.

Political conditioning

In 2009, Willis founded the Green Alliance's Climate Leadership

Programme, which provided training for politicians to help them better understand issues surrounding climate change. Although more than 100 MPs took part, she was left feeling disappointed. "They just carried on as usual," she says. "The question stuck with me: what did they do with that knowledge?"

After conducting interviews with politicians from all parties, Willis uncovered three factors that affect the way MPs operate. "One is their idea of what they can and can't do in their job, so the feasibility question," she says. "The second is the extent to which acting on climate change fits with their identity, and the third is whether they think it is in the best interest of the people they represent."

Willis says many are worried about appearing radical, citing Scotland's first minister Nicola Sturgeon as an example of a leader who argues for strong climate action but is bogged down by the feasibility question. "When she is asked about oil and gas extraction in the North Sea, she has said that 'we can't just close it down overnight'. She closes down the

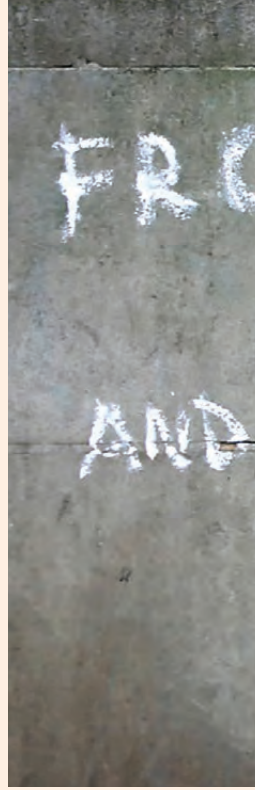


question because it's not a debate she believes is economically or culturally feasible now, despite what scientists say."

Identity, feasibility and perception of public opinion can cause climate change to slip down an MP's list of priorities. "You could look at it another way, and say that if you can address those three things, then they are more likely to act."

Ending the stand-off

The public's perception of politics also hinders progress, with Willis explaining





"Processes like citizens assemblies need to be implemented alongside a reformed representative democracy"

that many people are sceptical over whether MPs care about their interests. "You see rising public concern about climate, but you also see cynicism about the ability of politicians to take action, so people don't ask their MPs to act – and then politicians don't believe their constituents want them to."

Willis is saying that politicians consistently underestimate the public's support for climate action, with lack of engagement largely to blame. Grid decarbonisation, the shift in industry,

and various other achievements of the past 20 years have all been delivered without the public's input, but policies for the next 20 years will require their approval, she believes. "Up to now, ministers have been trying to do things almost without people noticing," she says. "They are always trying to work out what consumers – they are always called consumers, never citizens – are willing to accept, using that kind of language. But if you look at what we need to do over the next couple of decades, such as home heating upgrades and transport changes, they go to the heart of people's lives."

The UK government has set a target of net-zero emissions by 2050, and although Willis believes it's important for politicians to lead, she thinks public engagement will be critical in delivering the necessary policies. "We have the Climate Change Act in law, but how we get there is wide open for debate," she says. "There are loads of social choices involved in how we get to net-zero, and the best way to answer those questions is to ask people what they value, what kind of changes they would embrace, and what they find most difficult."

Acquiring consent

Willis is an expert lead for the UK's first citizens' assembly on climate change, commissioned by six select committees to advise the government on how best to deliver net-zero emissions. Although the assembly has moved online due to COVID-19, more than 100 members of the public will continue to deliberate, and their recommendations are still due in the summer. "It's amazing to see how seriously people take their job, and how they can have sensible discussions about complex issues – it confirms my faith in these processes."

These citizens' assemblies could be used to answer various questions at both local and national level, but several key ingredients are required. "You need a representative group of citizens and you need to ask the right question. You also need to give people the time and space to learn, deliberate and recommend."

She does, however, have two concerns about the Climate Assembly UK. The first is that members have been discussing transport, food, farming, domestic emissions and other issues that could each warrant their own assembly. The second is that parliament may



Interview

not implement the recommendations. "Extinction Rebellion wants the findings to be binding, so whatever citizens decide becomes law," she says. "I find that problematic because that's what representative democracy is for, and despite the huge flaws in the system, it's still the least worst option we've got."

She wants a "really clear mechanism" for how recommendations from citizens' assemblies are fed into decision-making, but is still confident that the government will listen to what is published in the summer. "Deliberative processes like citizens assemblies ideally need to be implemented alongside a reformed representative democracy, which itself does a better job of representation."

Suspending democracy

Brexit has revealed just how divisive referendums and direct democracy can be, but Willis says that this does not have to be true of citizens' assemblies. "I don't think citizens assemblies are divisive. But what we do on climate change isn't a binary choice, and these assemblies are just one example of deliberation between citizens and politicians."

Some experts believe deliberation and drawn-out debates are not a satisfactory response. James Lovelock (*below*) has likened the challenge to a war that

"The only way to have a sustained and meaningful response to climate change is by making the case with citizens about why this something they should vote for"



requires drastic action and a possible suspension of personal freedoms, arguing that "it may be necessary to put democracy on hold for a while".

Willis believes that more democracy is the only sustainable answer. "I think a lot of people in the climate community feel that if we could just do what needs to be done, that would be better than getting people to vote for it," she says. "But a benign dictatorship has never existed, and who calls the shots? Scientists are the experts on science, but they are not experts on the impacts on society. I believe that the only way to have a sustained and meaningful response to climate change is by making the case with citizens about why this something they should vote for."

Swedish professor Johan Rockström has called for 'planetary stewardship', with political decisions made within boundaries set by scientists. "It solves the problem on paper, but it raises so many questions about whether the approach is fair and who decides if it's fair – as soon as you start to unpack it you get political,"

Willis says. "It would be brilliant if politicians around the world decided to follow a planetary boundaries



Willis believes citizens' assemblies can play a vital role in translating public climate concern into action

Identity, feasibility and perception of public opinion are the factors Willis has identified as influencing politicians

framework, but you would still need to do the complicated social and political negotiations within each country."

New possibilities

It seems that politics and climate change can never be disentangled. "But that's a good thing," Willis argues. "Politics shouldn't be seen as a barrier, but a really important part of the process." Although coronavirus has brought suffering to thousands of people, she believes it has opened the public's eyes. "It's really shaken up our ideas and thrown a lot of assumptions out the window," she says. "It has helped open up the question about what the government is there for and what markets can and can't solve."

Willis admits that climate change has taken a backseat during the pandemic as both individuals and government have "limited bandwidth" but believes that a green recovery should be led by consent. "I have no time for people saying, 'oh look how lovely it is that the roads are clear and you can hear the birds singing'," she says. "Although I would be in favour of curbing road transport, I want that to be for positive reasons, rather than because we are all trapped at home. The crunch will come when we talk about the long-term recovery and resilience, and we need to ask the public why we should be spending their money on high-carbon projects when there are good low-carbon alternatives." 📌

REBECCA WILLIS is the author of *Too Hot to Handle? The Democratic Challenge of Climate Change*

Drowned out

Robert Blood examines COVID-19's impact on the environmental movement

Not long ago, business was bracing itself for a new wave of climate activism. The climate movement, epitomised by Extinction Rebellion and Greta Thunberg's Fridays For Future, was preparing to make 2020 the year of 'Climate Action by Popular Demand', when heads of state would be forced to address the greenhouse gas problem.

What a difference a couple of months makes. COVID-19 has swept climate change off the front pages, and the social lockdown has stopped all physical public protest. Extinction Rebellion and Fridays For Future have been neutered, just as the economic shock is delivering the reductions in fossil fuel use they had been demanding. (Ironically, this will enable established groups such as Greenpeace and Friends of the Earth to regain influence after 18 months of being out-shouted).

Angling for attention

The activists' initial reaction was to convert physical protests into digital ones – with varying success. A social media 'thunderclap' sounds dramatic, but few companies are likely to panic because of a larger-than-usual rush of hostile tweets from known critics. Even less impactful is projecting slogans onto buildings at night when no one can see them, as Greenpeace has been doing. More extreme groups have threatened internet attacks, such as corporate website shutdowns, but none have materialised.

Gaining the media's attention is also difficult. NGOs have tried to stay relevant by giving their arguments a COVID-19 angle: more than a third of NGO campaigning in March and April mentioned the disease. Even animal rights groups have joined in, demanding an end to livestock production as a cause of animal-to-human virus transfer.

Climate and environmental groups have been using political networks to lobby for economic bailouts to be tied to environmental conditions, and to be withheld from major polluters such as airlines. In Europe, the leading green and centre-left groups, supported by the European CEOs of several leading

companies, called on the EU to commit to a greener, more sustainable world after COVID-19 – not dialling back on the Green Deal, but doubling down. This seems a smart move – it keeps the environment at the top of the agenda, and recognises that many people want to feel their lockdown sacrifices have been worthwhile.


Harking back

The green movement is emulating morale-boosting efforts from the Second World War. In 1942, when fighting was at its peak and

the end was far from sight, the UK government published a 300-page White Paper on healthcare and social welfare reform by an academic economist.

While not intended to be implemented during the war, the *Beveridge Report* gave Britons the conviction that a better world would emerge. As a result, the Labour Party won the 1945 general election, and the NHS, along with expanded education, social security and pensions systems, quickly followed.

The environmental movement has grasped that COVID-19 is a crisis of similar dimensions – and, as the saying goes, never let a good crisis go to waste. However, it is unlikely to have the debate to itself. The economic desperation caused by the lockdown will mobilise other sections of society to speak up, and some are already arguing that it's time for less regulation, not more.

Whoever succeeds, Europe and many other regions will change dramatically during the coming five years, beyond simply the need for economic recovery. This will be the most important 'new reality' that business has to face. 

ROBERT BLOOD is founder and managing director of NGO tracking and issues analysis consultancy SIGWATCH

"People want to feel their lockdown sacrifices have been worthwhile"



Biodiversity

THE BUG PICTURE

We need more data if we are to build a full picture of global insect decline, say **Tim Newbold** and **Charlotte Outhwaite**

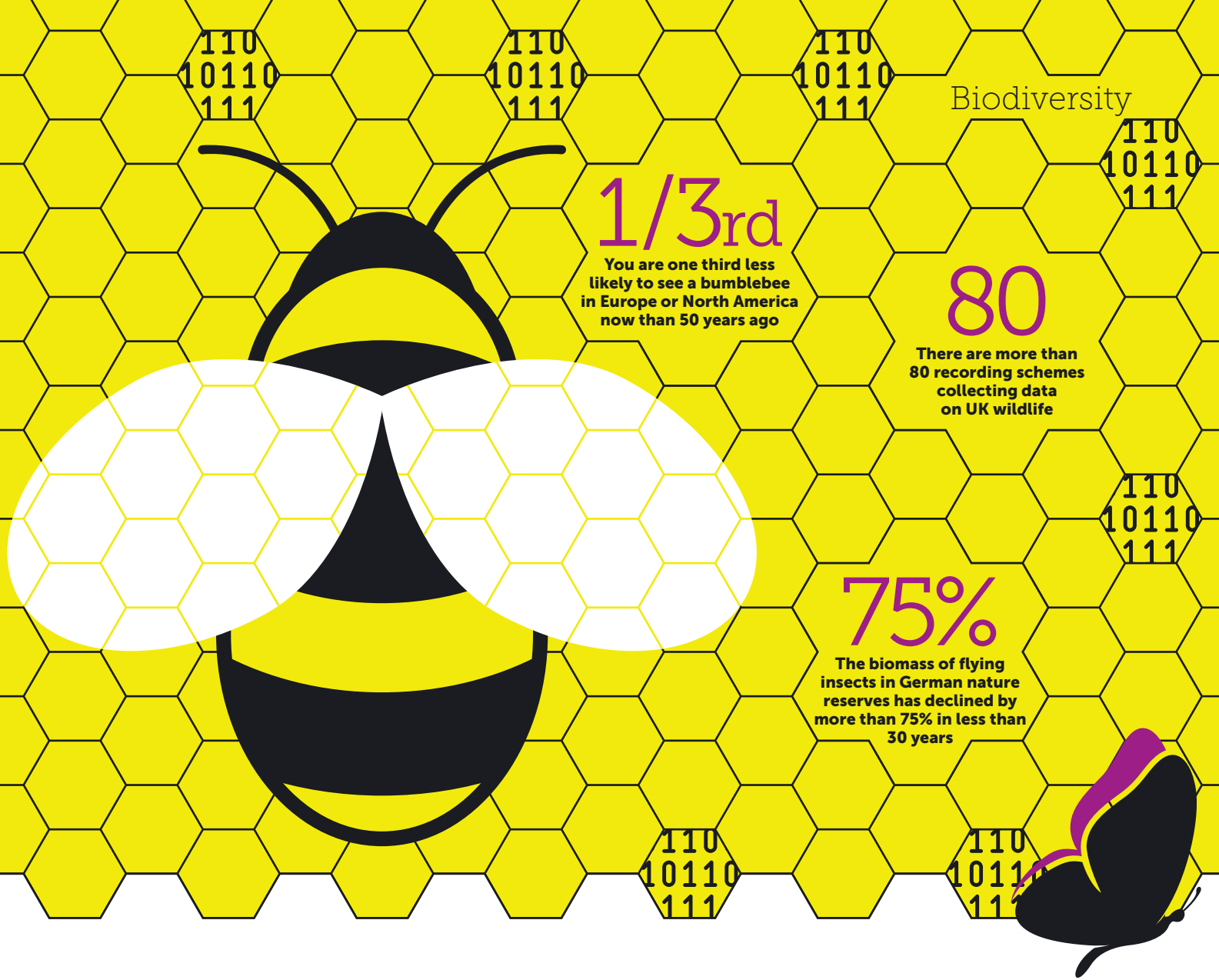
Insect declines have hit the headlines several times over the past few years, with suggestions of mass extinctions, or 'insectageddon'. However, some of the underlying science has been questioned for focusing only on the declines, using evidence from specific places to suggest more general trends, and failing to consider that insect populations naturally fluctuate a lot. Moreover, recent work has also uncovered a more mixed picture, with some positive trends.

Certainly, there is a lot of good evidence pointing toward very large

declines of insects around the world in recent decades. The total biomass of flying insects in German nature reserves declined by more than three-quarters in less than 30 years, you are around one-third less likely now to see any type of bumblebee in Europe and North America than 50 years ago, and populations of many UK insect groups are on a downward trajectory. Key threats, according to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services's *Assessment Report on Pollinators, Pollination and Food*

Production (bit.ly/2VXcF9Y), include the conversion of land to agriculture, the application of chemicals such as fertiliser and pesticides on this farmland, and climate change.

It is not all bad news, however. A recent study of UK wildlife trends showed that the distribution of freshwater insects has increased in recent years after experiencing strong declines, probably as a result of improvements in UK water quality. Similarly, while the biomass of UK moths has been in steady decline since the 1980s, this has not yet offset increases



seen in the 1970s. In the Netherlands, an assessment of national wildlife trends revealed an increase in dragonfly distributions between 1990 and 2014, again probably in part because of improvements in water quality, but also perhaps because dragonflies have benefited from recent climate change. These positive trends should not create complacency, though. Many groups of insects are particularly susceptible to climate change, so as we see greater and greater temperature increases, declines of insects are likely to accelerate.

Missing data

One of the major challenges we face in trying to understand insect declines is a lack of good data. In most parts of the world,

"In most parts of the world, there are not the sort of long-term monitoring programmes for insects that we have for some mammals and birds"

there are not the sort of long-term monitoring programmes for insects that we have for some mammals and birds. This lack of data means that we often have to rely on fragmentary evidence to estimate what is happening, hence the uncertainty and debates about studies of insect declines. The UK is fortunate in that insect monitoring has been taking place for a number of decades. There are standardised

monitoring schemes, such as the UK Butterfly Monitoring Scheme, and more than 80 other recording schemes collecting data on UK wildlife – including many insect groups. Other parts of the world are much less studied. There is a particularly important gap in tropical regions, which harbour an exceptional diversity of insects that are likely to be particularly sensitive to climate change. These regions are also likely to see a major transformation of



natural habitats to farmland during the coming decades.

Despite the lack of good data, it is vitally important that we try to understand insect declines, because there are huge consequences to losing these vital components of our natural systems. Insects provide food for other animals within food webs, recycle nutrients, transform the physical environment, and support plants through pollination and dispersal of seeds (see *Figure 1*), among countless other roles, many of which we don't fully understand. Many of these functions are also vital for humans, providing so-called 'ecosystem services'. Insect services are particularly important in allowing us to grow our food. Many insect predators help to control populations of other insects that are crop pests, and insects play a vital role in pollinating crops. Quite aside from these tangible material benefits, insects are also culturally very important. While we may be fairly happy to live without mosquitoes, insects such as butterflies and bumblebees are an important part of what we treasure most in the natural world.

Particular concern has been raised in recent years about the plight of pollinators. A 2006 study reported steep declines of pollinators in the UK and the

"Many insect predators help to control populations of other insects that are crop pests, and insects play a vital role in pollinating crops"

Netherlands during recent decades. In the UK, pollinators are one of the insect groups showing the largest declines. A major international report recently documented the cocktail of threats faced by pollinators, including agricultural intensification and chemical application. Climate change is a growing concern, adding to the many existing threats faced by pollinators. For example, recent declines in bumblebees are strongly linked to climate change. The coming decades will see rapidly

increasing temperatures, which will push more and more pollinator species beyond their limits. The loss of pollinators will have major consequences for agriculture. Most estimates suggest that the value of crop pollination alone stretches to hundreds of billions of dollars every year.

After decades of being relatively under-studied, it is good to see insects and other invertebrates moving up the research and policy agendas. However, we still have a long way to go in our understanding of insect declines, and of the consequences of these declines for wider natural systems. In particular, we need to achieve much deeper knowledge of the many roles that insects play, including those that benefit human societies. While there are some bright spots showing that recovery is possible under the right conditions, the current evidence points to steep declines in most insect groups in most places. Halting and even reversing these declines must be a priority to secure these oft-neglected animals that make such an important contribution to our wellbeing.

TIM NEWBOLD is a senior research fellow, Centre for Biodiversity and Environment Research, Department of Genetics, Evolution and Environment, University College London.

CHARLOTTE OUTHWAITE is a post-doctoral research fellow, Centre for Biodiversity and Environment Research, Department of Genetics, Evolution and Environment, University College London.

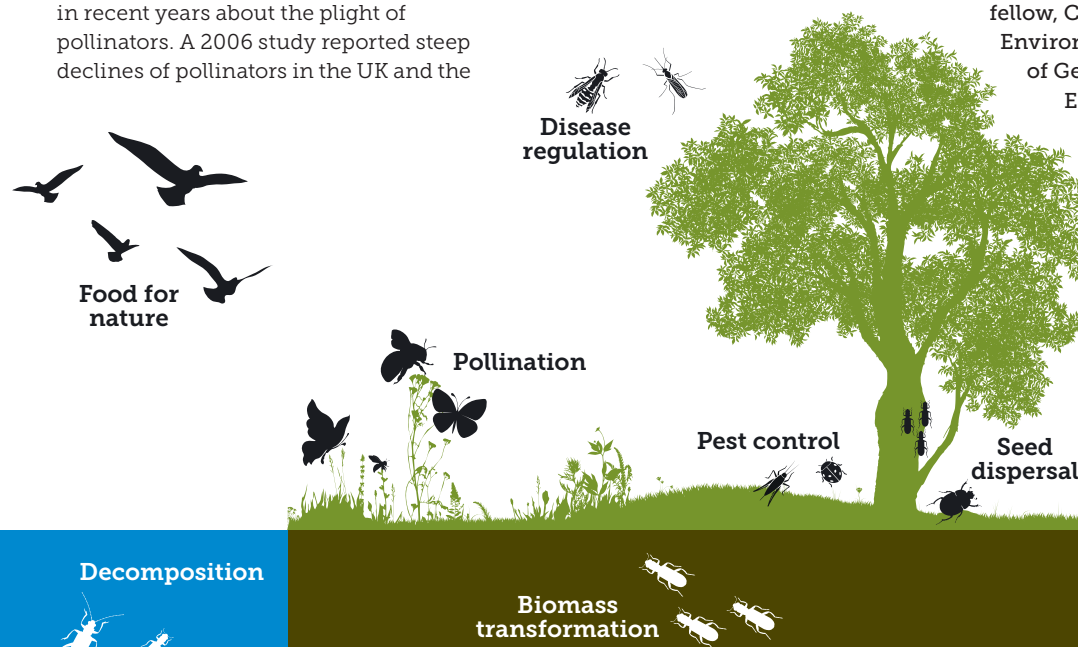


FIGURE 1: Insects make many contributions to natural systems, including valuable services to agriculture.

- ⬅ Impact: taking agricultural land for hard development
- ✓ Working the soil

impacts and mitigation measures. It would recognise the significance of land take and soil displacement in ecosystem services terms, particularly with regard to land use changes from agriculture to hard and soft development.

A Land and Soil chapter would set out the areas of agricultural land (in hectares) transferred to different types of hard and soft development, together with an account of what was done with the soils displaced. There would also be a commentary on the maintenance of soil

functions for the provision of terrestrial ecosystem services. For

example, opportunities for the use of permanently displaced soils to establish groundcover on brownfield land intentionally included within a proposed development site could be more clearly presented as a sustainability gain.

Proposed methodology

My online article sets out a worked example of the proposed methodology. Environmental specialists within EIA teams would contribute towards this analysis and commentary to determine the balance of sustainability achieved with regard to soil functions and land use changes. The methodology combines a degree of quantification commensurate with our understanding of the various EIA topics, together with objective analysis by specialists. In particular, and for the biodiversity soil function, there would be scope for ecologists to determine any biodiversity net gain and offsetting. ⑦

Find the longer version of this article, including a worked example of the method proposed, at bit.ly/2Z10Wdz

CHRIS STAPLETON is a member of the Royal Town Planning Institute and IEMA.

Gaining ground

Chris Stapleton

introduces a proposed new methodology for tracking the effects of development on soil

Soil functions are vital to terrestrial ecosystems; in my November 2019 *Transform* article (bit.ly/3djAEaA) I set out the most important land and soil inputs for environmental impact assessments (EIAs), as we move towards a terrestrial ecosystem services approach.

If the focus of protecting land and soil is beginning to encompass the provision of a wider range of terrestrial ecosystem services than the production of biomass (food, fibres etc) from agricultural land, how can this be done within EIAs? Here, I set out one approach with reference to the content of environmental statements (ES).

Impacts and mitigation

The important impacts of development are land take and the permanent or temporary displacement of soils. Site boundaries and scheme designs can be

adjusted to ensure that the smallest area of land is lost or disturbed, while layouts can be configured to locate hard development on less valued land and soils, and to maintain the physical viability of residual agricultural land.

Soils displaced should be quantified and conserved for sustainable residual end uses. For temporarily displaced soils this can be achieved by putting them back where they came from. Finding a suitable location for the sustainable reuse of permanently displaced soils is a greater challenge.

Changes to EIAs and ES

ES generally have a section or chapter on agriculture, setting out the Agricultural Land Classification grades of land taken by development. However, proposals for the conservation and sustainable use of displaced soils are often overlooked.

The shift in focus to a terrestrial ecosystems approach for the protection of a wider range of soil functions than the production of biomass should be reflected in a more generic ES chapter entitled Land and Soils. This would help us to concentrate on the most important

- ✓ The soil resource: structures and drainage channels of subsoil



The Corine Land Cover database for 2012 shows that just 6% of the UK is classified as urban, and according to *The UK National Ecosystem*

Assessment: Synthesis of the Key Findings, over half our towns and cities is greenspace. What we use un-sealed land for, and how we manage it, will have a significant impact on how well we adapt to climate change and mitigate activities that are driving it. The UN Framework Convention on Climate Change, in its Introduction to Land Use, acknowledges that land use can contribute significantly to mitigation of climate change.

Bold land management initiatives have been widely promoted in the face of this – for example, the 2019 Conservative Manifesto made a commitment to plant an additional 75,000 acres of trees a year by the end of this parliament. However, there is no single fix. The Natural Capital Committee's *Advice on using nature-based interventions to reach net-zero greenhouse gas emissions by 2050* report states that the solution needs to be integrated, holistic and supported by environmental net gain. One part of the solution (of five highlighted priorities) is that biocarbon stocks in existing soils need to be given greater focus and new stocks must be created – and this should be backed by further research initiatives.

Soils are special

To understand why soils are critical, why the health of our soils matters so much (in particular their carbon content) and what actions we should take, we need to understand what soils are. Soils are a combination of minerals, organic material (dead plants and animals) and living organisms, along with air and water. However, they are much more than the sum of their parts. Soils are habitats and ecosystems; a teaspoonful supports more living organisms than there are people on Earth. These organisms interact and are interdependent, just like life on the surface. If we look at soils in this way, rather than as an inert material, we should treat them more carefully and see them as one of our three critically important natural resources.

Importantly, soil is a non-renewable resource which forms at a very slow rate.

Around 95% of food production relies on soils, and they are home to a quarter of the Earth's biodiversity. Soils absorb and store water, reducing flood risk, and also store more than three times as much carbon as is contained in the

atmosphere. They support our landscapes, giving us aesthetic, spiritual, cultural, health, wellbeing and educational benefits, and they preserve our cultural history.

The sustainability of the environment is contingent upon soils.

While a huge amount of work is undertaken to study soils, there remains much we don't know because of their complex and microscopic nature. For example, many commonly used antibiotics (including penicillin) originated from soils, and new antibiotics have recently been discovered. What else do soils contain that we are not yet aware of?

The ability of soils to support and deliver ecosystem services and goods is dependent on their health. This is not about 'good' or 'bad' soils – it is about ability to function. The diversity of life in soils is linked to their function and, importantly, to their resilience.

Under threat

Soils have been and are under intense pressure from land management practices, negatively affecting their ability to function. Erosion washes away soils, depleting organic matter and filling ditches and rivers with sediment, resulting in thinner, less nutrient-rich topsoil. Combined with cultivation and drainage, especially of organic soils, this is reducing a vital carbon store.

Bruce Lascelles on
the critical importance
of soil health in land
management and
climate mitigation

Supporting our soils

⬇ Upland soil (podzol), mid-Wales

⬆ Floodplain soil developed in sand, North Wales



Soils are being compacted through pressure and the decrease in carbon weakening structural units. This reduces the amount of rainfall that can be absorbed, thus increasing flood and erosion risk. In *Costs of Soil Degradation in England & Wales*, Defra estimated that the cost of soil degradation in England and Wales in 2012 was £0.9-1.4bn, mainly as a result of compaction and soil organic matter loss.

Land management as mitigation

If land management has resulted in soil degradation, land management changes are the key to restoring soil health and function, supporting resilience to the impacts of climate change and the ability to retain and store more carbon – which itself makes them more resilient. This has to be seen as a win-win strategy, and society must learn to use and manage soil resources in a sustainable manner to secure a healthy and sustainable future. Sustainable land management as part of a holistic approach needs to be our focus.

This will require the selection of the right land use for any biophysical and

socio-economic condition, and at the heart of this we will need healthy functioning soils that are capable of supporting and providing multiple benefits.

The changes required will come from a variety of initiatives: tree planting (the right trees in the right places), rewetting our drained wetlands, and protecting and restoring our remaining peatland. All soils can play a part in securing a better future. Different agricultural practices, such as reduced tillage, can improve soil and support climate change adaptation requirements, as well as increase carbon levels (see the 4 per 1000 initiative launched at COP21: www.4p1000.org).

According to Natural England's publication *Carbon storage by habitat: Review of the evidence of the impacts of management decisions and condition of carbon stores*



1 TEASPOON

of soil supports more living organisms than there are people on this planet



AROUND 95%

of food production relies on soils



Soils are home to **A QUARTER** of the world's biodiversity



Soils store **MORE THAN 3 TIMES AS MUCH CARBON** as is contained in the atmosphere




The cost of soil degradation in England and Wales in 2012 was **ESTIMATED TO BE £0.9-1.4BN**

and sources, land use changes – such as from arable to pasture – can result in soil organic carbon levels increasing. This will be key, but there is also potential for increasing CO₂ fixation as inorganic carbonate in soils which, for example, contain fine concrete particles.

This potential will be realised at different scales (as long as the practices adopted are adapted to the local conditions), from those associated with large land holdings to urban pocket parks and linear features (for example, the soft estate associated with our national road network is around 30,000ha, and Highways England has committed to biodiversity net gain by 2040). The positive effects of land management on soils, including how soils are handled and re-used sustainably, needs to be seen as part of the solution moving us towards zero-carbon and resilient masterplanning and how

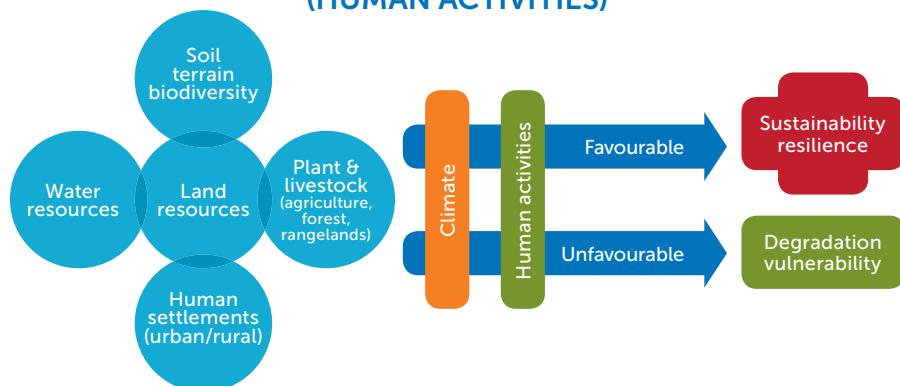
local authorities and the government holistically respond to the climate emergency. This will only be achieved through collaboration and partnerships.

As Franklin D Roosevelt said, “a nation that destroys its soils destroys itself”. We know how important our soils are; now is the time to act at scale and with pace to ensure a sustainable future. 

There are resources available to find out what sort of soils occur where you live: go to www.landis.org.uk/soilscapes for England and Wales; for Scotland, look at www.soils-scotland.gov.uk/data/wrb

BRUCE LASCELLES is an experienced soil scientist and is the incoming president of the British Society of Soil Science.

SUSTAINABLE LAND USE AND MANAGEMENT (HUMAN ACTIVITIES)





Digging our way to defeat?

Britain's food system is broken from top to bottom, according to a new book by **Tim Lang**. Huw Morris reports



ne of the most important dynamics driving food production is "from farm to fork". Tim Lang thinks the UK is getting this perilously wrong.

The professor of food policy at City, University of London bases his views

on half a century of experience. After completing a doctorate in social psychology, he spent seven years during the 1970s as a hill farmer in the Forest of Bowland, Lancashire. He credits this with shifting his attention to food policy. In 1994, he founded City University's Centre for Food Policy, from which he has probed the role of local, national and international policy in shaping and responding to the food system.

Lang's career has included consultancy work for the World Health Organisation, auditing the top 25 global food companies on food and health. He has advised the UK government and four House of Commons Select Committee inquiries. He helped launch the 100 World Cities Urban Food Policy Pact in Milan in 2015, and was a member of the EAT-Lancet Commission on Healthy Diets from Sustainable Food Systems, which published the *Food in the Anthropocene* report in 2019. He also coined the phrase "food miles".

His latest book, *Feeding Britain: Our Food Problems and How to Fix Them*, is a *magnum opus* covering the UK's food system, how it is damaging the population and the environment, and why it is unsustainable. In short, UK food is unhealthy, environmentally disastrous and, despite being unrealistically cheap, reinforces inequality between rich and poor.



Importing iniquity

For 170 years, the UK's food policy has relied on former colonies and trading partners. This position, which Lang calls "imperialist", ignores the lessons of the two world wars, and is dangerous during an era in which climate change, mass obesity, market volatility and cyber insecurity are the new normal.

The UK should "dig for victory", he says. We depend on imports for half our supplies, including 87% of fruit and vegetables, and what we grow is biased towards grass and animals.

And this is before we waste it – 70% of UK food waste is domestic.

The UK food industry generates £225bn a year, making it second in size only to financial services – yet just 8% of this goes to the nation's farmers and fishermen. This has led to concentration, distorted labour markets and what Lang describes as the naive belief that science or business will sort everything out.

And then there is the environmental destruction. Lang describes the UK as "one of the most nature-depleted nations on earth", having lost 84% of its topsoil during the past 179 years. Much of its prime farmland is submerged in concrete. Meanwhile, producing a single beef burger requires 2,350 litres of water. Subsidies go to those who need them least, and are spent on intensive farming that is wrecking the ecosystem. Massive environmental challenges are on their way, if they are not here already. "Climate change will be noticed," he says. "More floods, more droughts, more stresses, more extreme weather. This has a big impact on land and how we use it."

An insecure supply

Lang sees the Netherlands as a model for the future, because most of its fruit and vegetables are home-grown. He believes that food production should be more local, cutting distribution costs, and that junk food advertising and 'best before' dates should be banned. His book was written after the 2016 EU referendum but takes on added significance following the COVID-19 outbreak, with its warnings over the fragility of food supplies.

He is scathing about food contingency planning. The UK's naval protection has become more and more frayed, yet the government "seems intent to source more from far away", even though ship and

"Food is a crucial part of our national infrastructure, not a bargaining chip in trade"

truck-based supplies can be disrupted by malware. The food industry, he says, knows the risks, and the government is "dangerously complacent". Brexit is an opportunity to fix this. "Food is a crucial part of our national infrastructure, not a bargaining chip in trade," he says.

Lang calls on the public, industry and policymakers to take food security seriously. This means an overhaul of national food infrastructure, with new regional supply systems. Horticulture needs to be rebuilt, while

our "inefficient cattle culture" should be phased down. There then needs to be a consumer behaviour shift towards sustainable diets.

"We've come a long way since the time when British food was known as brown and bland," he says. "But future security depends on us rebuilding food governance which is fit for purpose. It needs radical change. Tinkering won't work in the longer term."

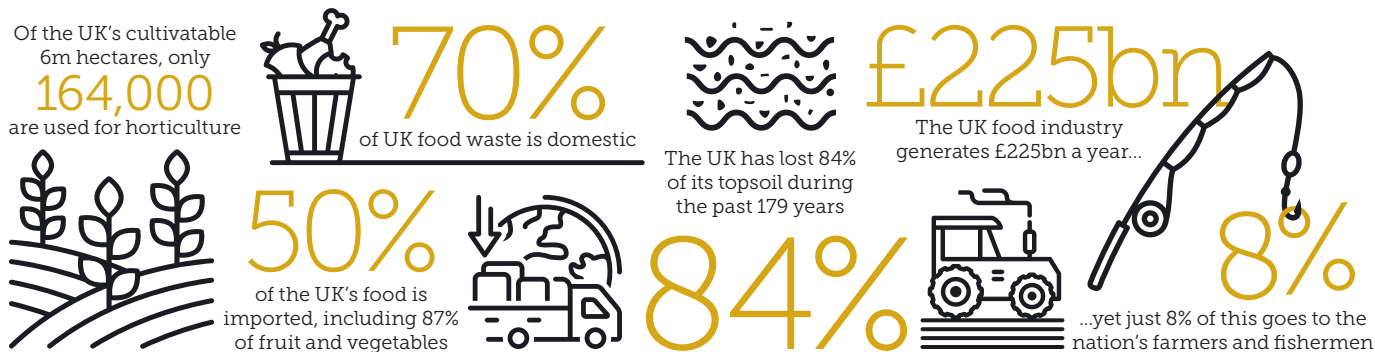
Time to grow up

The UK needs to think about "what we want from the land in the first place", says Lang. "Is it for the rich, as a hedge against uncertainty? Is it for the common people? For housing or building on? For food production? For woods? For water? For carbon sequestration? For culture and amenity? For the view? For tourism? The shape of that mix is a public issue, which we seemingly cannot decide – but climate change will force us to.

"Out of the UK's cultivatable 6m hectares, only 164,000 hectares are used for horticulture. This is bonkers. We need to double or treble our consumption of fruit and veg but instead have a tacit food policy to use other people's land. It's time we grow up politically and start rebuilding the connection between people, land, food and health. In short, it's time we had a food policy that integrates ecosystems, human health and food production. That's not what we currently have."

Feeding Britain: Our Food Problems and How to Fix Them is published by Pelican, £25.

HUW MORRIS is a freelance journalist





Many believe the meat industry is facing a crisis. The popularity of vegetarianism and veganism, fuelled by concerns over industrial farming, have combined with issues such as limited land availability and antibiotic resistance to create a perfect storm for the sector.

Various scientific studies have concluded that, due to the emissions released, our current consumption of red meat is incompatible with limiting global warming to 1.5°C above pre-industrial levels. The University of Oxford's Food Climate Research Network has stated that grazing animals should not be a central part of sustainable food production, and the UK's Committee on Climate Change has recommended people cut the amount of beef, lamb and dairy they eat by a fifth to combat global warming.

Some, meanwhile, argue that rearing livestock could help solve our environmental problems, claiming that pasture-fed cattle and sheep help boost soil health and carbon sequestration. Still others say grain-fed animal rearing is more efficient, with scientists from Harvard University finding that a nationwide shift to grass-fed beef requires a larger cattle population and far more pastureland.

All this comes as technological advancements make lab-grown 'meat' for the masses an increasingly realistic prospect, potentially providing ethical and environmental advantages. Dutch company Mosa Meat and Spain-based Biotech Foods expect the price of producing a lab-grown burger patty to drop to \$10 by 2021 – down from \$271,000 in 2013. In addition, modelling by the \$20trn FAIRR investor network suggests that alternative proteins such as plant-based burgers could command over half of the current meat market by 2050, depending on factors such as technology adoption rates, consumer trends and a carbon tax on meat.

With so many trends converging, I asked three experts whether cattle and sheep rearing can ever be truly compatible with a sustainable food system. [▶](#)

Livestock farming faces an uncertain future as environmental and ethical concerns combine with other challenges, says **Chris Seekings**

Is the meat industry at a crossroads?



Do you think the meat sector can ever be truly sustainable?
To publish your views, contact features@iema_transform.com

The big question

Sustainable food systems: A look at the options



DAVE STANLEY

FIEMA, Pasture-Fed Livestock Association director

"Pasture-feeding should be part of the solution"

Cattle and sheep are not the cause of global warming, but intensive production of food and livestock does contribute. The accepted view of global warming and associated climate change is that it is largely due to the fossil fuel burning and consumption.

Two-thirds of farmed land globally is pasture, so it makes sense to graze cattle and sheep on it rather than feed them grains – 60% of the world's grain is fed to livestock! Intensively grown grains requiring fossil fuels have resulted in significant soil degradation on arable farms. Farmers that rear their animals on a grass/pasture diet can improve soil productivity through grazing management and returning animal manures to the soil. They also capture carbon in their soils. The effects of drought and flooding are reduced because the roots of a diverse pasture grow deep – improving soil structure and water retention.

Farmers with 100% pasture-fed cattle and sheep enhance support and biodiversity in their fields. Paddocks or rotational grazing with a diverse sward, trees, hedgerows and a mixture of grasses and herbs will sequester carbon in the soil. You can eat meat or dairy with a clear environmental conscience if it is labelled 'Pasture for Life', certifying that it has come from animals reared exclusively on pasture.



DR CÉCILE GODDE

Food systems research scientist, Commonwealth Scientific and Industrial Research Organisation

"It's all about context"

Grazing ruminants play an important role in the world's commitment to end poverty, protect the planet and ensure health and prosperity for all. Grass-fed ruminant systems contribute positively to many environmental and socio-economic aspects, but also cause 30% of the livestock sector's greenhouse gas emissions and are often more emission and land-intensive than other systems. Soil carbon sequestration would not be enough to offset global grazing systems emissions.

What is the role of grazing systems in a sustainable food future? There is no straightforward answer – it's all about context. We will need to ensure grazing systems perform well across themes such as food security, livelihoods, animal welfare, disease prevention, biodiversity conservation and ecosystems protection. Multiple approaches must be undertaken, such as improving farm efficiencies, altering dietary patterns and reducing food waste.

What the sector will look like in future is uncertain. It will depend on crop and livestock productivities, food demand, regulations, global forces, and technological 'wildcards' such as meat alternatives and their associated trade-offs. This uncertainty means we have a great opportunity to shape the future of our food systems.



MARIA LETTINI

FAIRR Initiative director

"The sector must reform to manage the risks"

The beef industry faces significant challenges if it fails to acclimatise to the risks posed by climate change and shifting consumer preferences. The sector must reform to manage the risks it faces. The Collier FAIRR Climate Risk Tool, designed to help investors quantify transitional and physical risks, shows that corporate EBITDA could be lost or enhanced based on how companies respond to the challenge.

Increased cattle mortality from heat stress, reduced land availability, and rising feed and veterinary costs will have significant financial implications. Failure to adopt a climate progressive pathway could result in the loss of billions; FAIRR found that meat companies with high exposure to beef were most at risk. The likelihood of a meat tax is also looking probable, as the sector's environmental and health costs have become difficult to ignore.

We expect to see meat companies pursuing alternative proteins. The alternative protein sector is expected to command at least 16% of the current meat market, potentially rising as high as 62%. The Collier FAIRR Index found that 15 out of 60 of the largest meat, fish and dairy companies are already invested in plant-based options. We expect to see this trend become more widely-adopted, as meat companies adapt to survive.

↑ STEPPING UP TO THE PLATE

David Burrows examines companies' responses to the COVID-19 crisis – exemplary or otherwise

In one Bristol community this year, the Easter Bunny escaped lockdown and left chocolate eggs on doorsteps. Disguised as supermarket delivery drivers, the treats were left at households displaying pictures of rainbows in support of frontline workers. The initiative wasn't picked up in the press but is a brilliant example of a company – in this case Morrisons – showing its caring side during the COVID-19 crisis. "It's genius," says Elizabeth Adams, managing director in strategic communications at FTI Consulting, which advises companies during crises and unexpected events.

Morrisons has also committed to pay all its small suppliers immediately (the first major supermarket to do so) and received plaudits for its treatment of staff. "We expect the days, weeks and months ahead to be very testing and we are determined to do our bit," says chief executive David Potts. This, it seems, is a business in touch with its customers, its suppliers and its workforce.

Now consider JD Wetherspoon – the pub chain founded and chaired by Tim Martin, who, when pubs were ordered to close, suggested staff found a job at Tesco instead. He then wrote to suppliers, according to an email seen by sustainability organisation *Foodservice Footprint*, asking for a "moratorium on payments until the pubs reopen". Outstanding invoices would not be paid.

In its latest financial year, Wetherspoon reported revenues of £1.8bn on pre-tax profit of £102.5m. Martin, a millionaire, signed off with the words: "Best of luck."

Are these cases of companies that care and couldn't care less, or has fortune smiled on some and not others? Many businesses are at the sharp end – in some cases with zero revenue and no idea how to act or behave. Others have found themselves in an extraordinarily relevant place.



Reputational damage

For hospitality, leisure and travel businesses, it's an "unforgiving environment", says Jon Chandler, CEO at

"I don't think when people were writing their purpose statements that anybody imagined it would be tested in this kind of scenario"

Quiller Consultants, which specialises in reputation. The damage could last years, rather than months. At the other end of the spectrum are the supermarkets and healthcare providers. "Their products and services are part of the solution," Chandler notes. Their challenges are different: for many it's about hiring and training enough staff and ensuring those at work remain safe, he adds.

Wherever you look, reputations are at stake. As the FT noted recently: "Banks are exhorted to pass on rate cuts; employers to treat workers well; big companies to pay suppliers promptly. Many businesses claim to serve society, as well as shareholders. This is their chance to prove it." Or not.



- Independent brewery BrewDog has repurposed its distillery to make hand sanitiser for health workers
- Virgin Atlantic employees have been told to take eight weeks' unpaid leave due to the COVID-19 pandemic



Climate cynicism

In some cases, actions are reportedly more cynical. Some industries are using the current situation to postpone, water down or even wipe out environmental regulation. Campaign group Mighty Earth has identified five 'coronavirus climate profiteers' in the US: carmakers, airlines, illegal loggers, the meat industry and fossil fuel companies, including those in the plastics sector. FTI's Adams says some companies have said "some ridiculous things to protect their interests without listening to the world around them", but remains hopeful that coronavirus won't create the cracks in climate change policies that some lobbyists are hoping for: "We've gone too far down the path."

Indeed, in Europe, calls to push back the Single-Use Plastics Directive (banning certain items and set to come into force next year) has been given short shrift by the European Commission. Still, some environmental rules have been temporarily bent to help businesses: the plastic bag tax has been scrapped, for example, and the ban on plastic straws and stirrers delayed by six months. The Environment Agency and the Scottish Environment Protection Agency have also relaxed some of their rules. This makes sense. The worry is that given an inch, some will take a mile.

Learning from mistakes

Should we also cut businesses some slack in other ways? Should the rules on reputation be put on hold, as our lives have? "I don't think when people were writing their purpose statements that

Businesses that have promoted their purpose (see *Transform*, November 2017) have further to fall now that this is being put to the test. Virgin is one example. Richard Branson has long said that the company's employees are its top priority. He told *Inc.* in 2014: "If the person who works at your company is not appreciated, they are not going to do things with a smile." Virgin Atlantic employees weren't smiling when they were asked to take eight weeks' unpaid leave, though. "If Ryanair had tried something similar we would have hardly raised an eyebrow," noted Mark Ritson in *Marketing Week*. "But after two decades of marketing we expect Branson and the brand of Virgin to be better than this."

Perhaps less surprising is that Mike Ashley (SportsDirect) and Phillip Green (Arcadia Group, Topshop) have performed poorly. That Amazon is seemingly at constant odds with unions over the safety and treatment of its workers is also predictable. Tough decisions have been made, and the public can be unforgiving. Consider the outrage when Tottenham Hotspur Football Club announced it was furloughing non-playing staff and it's easy to see why – if reports are to be believed – the heads of big UK accountants held a virtual meeting to discuss the reputational risk of taking taxpayer money to furlough staff.

"There will be a legacy to behaving really badly. It's still easier to create villains than heroes"



anybody imagined it would be tested in this kind of scenario," says Chandler. Indeed, no-one really knows what they are doing and most, one hopes, are trying to do the best they can. Things will be said, actions will be executed and risks will be taken. "I'd like to think people will be more forgiving," says Ben Hayman, managing partner at brand purpose agency Given.

Mistakes are inevitable. Take BrewDog, the independent brewer that has repurposed its distillery in Aberdeenshire to make hand sanitiser (a product in very short supply) that will be given away to charities and the Aberdeen Royal Infirmary. However, the first batch didn't reach the standards required for use in a medical environment. Rather than down tools, though, BrewDog is now working with its local NHS Trust to produce a gel that doctors and nurses can use. "They've cocked up, learned from it and proved to be agile," says a former corporate responsibility director at a major facilities management company.

Experience from Hong Kong, Italy and Singapore, which were all hit early by the virus, suggests it's better to make a mistake than to wait and waste time. Consultancy Arthur D Little interviewed 25 chief executives at telecoms, transport and utilities firms in those countries and, as one CEO said: "Perfection is the enemy of the good."

It isn't just distillers that have pivoted their businesses to help shore up critical supply chains – clothes manufacturers are also trying to plug gaps in the supply of personal protective equipment (PPE).

DIVERGING APPROACHES

40,000

JD Wetherspoon advised its 40,000 employees to work at Tesco during the COVID-19 crisis, and wrote to suppliers asking for a moratorium on payments. In its latest financial year, the company reported revenues of £1.8bn on pre-tax profit of £102.5m



100,000



Two years ago, **Burberry** was criticised for destroying £28.6m worth of finished goods. It has now repurposed its Yorkshire trench coat factory to make PPE for the NHS; at the time of writing, it has made and donated 100,000 non-surgical gowns and masks



In doing so, some are mending reputational rips made pre-COVID-19. Consider Burberry. Only two years ago the fashion brand was at the centre of an environmental storm after destroying £28.6m worth of finished goods. Now it's a hero: in a matter of weeks it has repurposed its Yorkshire trench coat

factory to make PPE for the NHS.

"I don't believe this is a calculated PR move," says Eleanor O'Leary, founder of The Better Brand Consultant. "I do think it creates a halo effect that people will remember."

At the time of writing, Burberry has donated 100,000 non-surgical gowns and masks, and provided funding for research into a COVID-19 vaccine. Not all businesses can adapt their factories or reassign staff – for some, an injection of cash where it's most needed is the most useful thing they can do. "You don't want Goldman Sachs sewing protective gear for nurses," says Hayman.

What about those that haven't stepped up yet? Some will still be working through the chaos, while others are just more cautious. "Sometimes we're a bit slow to get to where we need to be, but its thoughtfulness and care that slows us down rather than a lack of want or ambition," admits the head of sustainability at one large high street brand.

It's still early days, and yet there are already examples of companies that care and those that care less. Will we remember who they are when we emerge from the other side? "It's all moving so quickly that I'm not sure if the good or bad stuff will have long-term impacts on a brand's success," says Hayman. "But there will be a legacy to behaving really badly. It's still easier to create villains than heroes."

DAVID BURROWS is a freelance journalist and researcher

The Lockdown Diaries

It's been seven weeks (at the time of writing) since prime minister Boris Johnson announced a national lockdown to curb the spread of coronavirus – seven weeks in which more than 30,000 people have died in the UK, the first European nation to pass that grim landmark. "How on earth did it come to this?" asked Sir Keir Starmer in his first Prime Minister's Questions as Labour leader.

There will be time to unpick this government's response to the pandemic, but we are still in the eye of the storm. The peak may have passed, but attention now turns to how to ease the lockdown, restart the economy and reopen schools. The spectre of a 'second spike' looms large in the near-term, economic ruin in the medium term. Longer-term, there is the deeper climate crisis.

Most will agree that the prime minister can't throw caution to the wind. Our world will be very different for some time. Safety is vital – but the economy is sick. How can we best resuscitate it?

Two camps are emerging: 'build back better' and 'bulldoze and be damned'. In the first are those promoting alignment between economy and environment. The other suggests businesses need to be rebuilt quickly, regardless of the longer-term costs; that wealth will give us resilience.

Robert Colville, director of the Centre for Policy Studies, suggests the best thing ministers can do is 'focus on bulldozing any and every obstacle to growth and job creation. That means spending less time pinpointing which businesses are 'good' and which are 'bad' [see page 26], and more on supporting businesses of every kind," he wrote in the *Financial Times*.

Airlines and oil companies therefore need a bailout, so the thinking goes; tax-shy Amazon can invest in takeaway platform Deliveroo. If these companies fail, jobs will be lost, and people and the economy will suffer. But so will their rich owners and investors.

Another way to do this would be to recreate companies in a better way – or create new, better companies. Ministers are making decisions quickly, but that doesn't mean interventions cannot come with caveats



"TWO DISTINCT CAMPS ARE EMERGING: 'BUILD BACK BETTER' AND 'BULLDOZE AND BE DAMNED'"



and clauses relating to carbon (or other environmental, social and corporate governance measures). The details can be fleshed out later, but ministers should be wary of simply flashing the cash and hoping for the best.

There is also evidence to show that building back better can save money. Recent research led by the University of Oxford catalogued over 700 stimulus policies and surveyed 231 experts from 53 countries, and found that green projects create more jobs, deliver higher short-term returns per dollar spend,

and lead to increased long-term savings than traditional fiscal stimulus. "We can choose to build back better, keeping many of the recent improvements we've seen in

cleaner air, returning nature and reduced greenhouse gas emissions," said lead author Cameron Hepburn.

It has been wonderful to see air quality improve, emissions fall and nature thrive, but when we 'switch the economy back on', air quality will nosedive, emissions will rise

and ecosystems will again struggle.

This is a long game. Lockdown hasn't reset the clock, but it's given us a glimpse of what the world could look like – from cities booming with bikes, to international business conducted via a screen rather than the skies.

Which path will Johnson take? He is arguably a populist leader, with voters getting what they want when they want it. Some 66% of Britons believe climate change is as serious as COVID-19 (Ipsos Mori, April 2020), but they are divided on whether the government should take actions to help the economy that might harm the environment: 46% say yes and 43% no. There is no referendum on how to recover after this crisis, but the decisions Johnson makes will reveal how truly green he is. 🟡

DAVID BURROWS
is a researcher and
freelance writer.

Edens of the East

Rick Gould takes a look at China's sustainable city projects, and how the country is using its experiences to help shape standards in this area

Sustainability is not a concept many would associate with China's staggering rate of urban development. However, the Chinese government has committed itself to building hundreds of sustainable cities, while also transforming existing cities to meet the same goals. It has worked with partners internationally to share its experiences, contributing to relevant ISO standards.

From the ground up

A decade ago, German chancellor Angela Merkel visited China to sign a Memorandum of Understanding for a joint venture to develop the Sino-German Ecopark – part of a programme to strengthen Germany's economic and strategic ties with China. Located near the city of Qingdao, the aim was to create a sustainable city that would serve as a learning and demonstration project.

Close to Beijing, the Sino-Singapore Tianjin Eco-city shares many features with the Ecopark; established a few years earlier, it also sprang from international co-operation and shares the same aims. Both cities were designed on sustainable principles from the ground up, and include features such as energy-efficient buildings, distributed energy systems with a high proportion of renewable energy, green spaces, low-impact industries, and infrastructural planning that minimises transport needs.

Both cities have influenced sustainable city standards, although they are still progressing towards zero-waste and zero-carbon development. So how is sustainability defined in this context, and what can we learn from these cities?

What is a sustainable city?

"The UN's definition of a sustainable city includes the economy, society and the environment," explains Shanfeng Dong of Bluepath City Consulting, which has worked to sustainably transform and develop cities in China and elsewhere. "The aim is to make cities inclusive, safe, resilient and sustainable."

Dong is an architect who became involved when he returned to China 20 years ago, after completing a masters in city design and social science at the London School of Economics.

How did the concept of sustainable cities develop in China, and how has it evolved? "The concept has kept evolving from the beginning – now it means an equilibrium of the optimal outcome for every element within the city, including the human, societal, environmental, cultural, economic, infrastructure and lifestyle aspects," he says.

The concept of an ecological civilisation was highlighted by China's central government in 2002 and became official policy in 2007. "In my view, being sustainable is deeply rooted in Chinese philosophy, which emphasises the harmony of the universe," Dong adds.

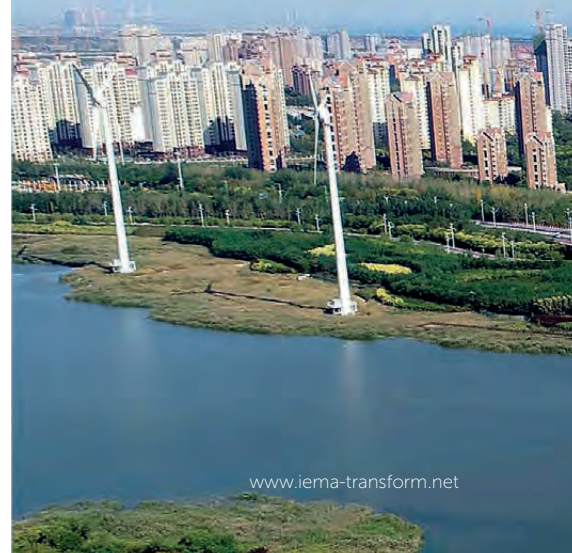
Sustainable development is a pressing necessity for China because of its economic growth and increasing number of large cities. The idea behind the initiative is to reverse environmental pressures while meeting economic and social objectives. Do the projects show that this can be achieved? Dong is confident that they will, having been involved with the Qingdao Ecopark and Tianjin Eco-city since their inception.

The importance of indicators

Cities are complex, and sustainability approaches can become fragmented. Common metrics and harmonised systems of operation were needed to connect cities' different functions and allow them to work effectively together.

In the early days, it was also clear that indicators were essential for setting objectives and targets. "We started by researching indicators for implementing

IMAGES: FREY GRUPPE/ALAMY



- Staff members monitor the facility operation in the Tianjin Eco-city
- 🌃 The Sino-German Ecopark at night.
- ✓ The Rainbow Bridge to Tianjin Eco-city



a sustainable system,” says Dong. The evolving system also included interrelated provisions for policy, strategy, planning, design, management, data collection and evaluation – all the elements of the typical ‘plan-do-check-act’ (PDCA) management system that is found at the core of standards such as *ISO 14001*, but applied at a macro, city-wide level to foster sustainability.

“The key for sustainability is the way people think and act; such philosophy has to be ingrained within the system, and the PDCA cycle provides a good way to progress this,” explains Dong. “In the Tianjin Eco-city, we developed something similar to the PDCA cycle, which is the eco-TREE principle: target, realise, evaluate, enhance. The indicators and systems standards can fit into this loop, and provide a handy tool.”

Developing standards

In 2013, Dong was among the Chinese representatives on the ISO technical committee (TC) 268 tasked with developing international standards for sustainable cities. TC 268 developed 2016’s *ISO 37101*, a management-systems standard for sustainable development in cities and communities. This was followed by *ISO 37104*,

published in 2019 and providing implementation guidance for *ISO 37101*.

“ISO TC 268 has produced 10 international standards that provide tools for sustainable cities and communities, such as *ISO 37106*, which covers operating models for smart cities, and *ISO 37120*, for indicators for city services,” says Dong.

He is an enthusiastic advocate for international cooperation, assessment and certification. To this end, he served as the convenor for developing *ISO/IEC 17021-8*, the accreditation standard for *ISO 37101*, as well as supporting and initiating the development of related standards in the *ISO 37000* series. Since ISO published *ISO 37101*, it has been trialled in several cities worldwide; the Tianjin Eco-city is a demonstrator city.

Big ambitions

The Qingdao Ecopark and Tianjin Eco-city were built from scratch, and are small compared with most cities. Can the *ISO 37000* series be applied to bigger, existing cities?

Dong points out that *ISO 37101* has been applied successfully in many cities around the world; the Chinese megacity of Hangzhou, for example, was among the first. In 2017, it worked with the

French national standards body AFNOR and other cities worldwide to create the International Smart Sustainable City Club (ISSCC), which supports and promotes the application of the *ISO 37100* series. There were initially 16 member cities, half being in China.

When China embraces a goal, it can muster enormous resources and achieve rapid results. The city of Gaobeidian, for example, is building an estate of high-rise buildings, flats and related infrastructure using passive house principles; these will have an area of over 1,000,000m² and be the largest passive house project in the world. Meanwhile Shenzhen, a megacity with poor air quality, is a founder member of the ISSCC and has embraced sustainability – evident in its creation of roof gardens across the city, stricter environmental standards and all-electric bus fleet.

“As well as highlighting important issues, providing indicators and helping to align data and reporting, standards should make the sustainable development approach simpler, not more complicated,” concludes Dong. 📌

FURTHER INFORMATION

To find out more about ISO technical committee 268, go to bit.ly/2yVtVV5. Information about the ISSCC can be found at www.isscityclub.org

RICK GOULD, MIEMA CENV, is a technical advisor at the Environment Agency. He is writing in a personal capacity

“Standards should make the sustainable development approach simpler, not more complicated”



Northern Rail

Kyle MacNeill, environment business partner and **David Gray**, head of energy and environment at Northern Rail tell us about winning the award for Best Workplace Development



How many of your staff took environmental training, and over what time period?

The training programme took place over two years and involved the delivery of training to more than 5,000 staff members. This included everyone from the managing director to the frontline colleagues who deal with customers and work to maintain our trains.

Did you have any challenges particular to training staff running a railway?

A lot! Facilitating the delivery of an extensive training programme to a wide number of roles throughout the north of England was a challenge in itself, but fitting this in while maintaining our daily operational train performance proved to be the most challenging aspect. We had to roll out training while having minimal negative impact on our operation and no negative impact on our customers.

How was the training linked to the IEMA skills matrix and was this useful?

We were early adopters of the All Jobs Greener programme, which makes colleagues more aware of the role they play in sustainability, and consisted of a three-stage approach: leading with environmental sustainability, aimed at our director team and senior leaders; managing with environmental sustainability, aimed at our management team; and working with environmental sustainability, aimed at the rest of our workforce.

All directors and executive managers were to be trained in six months. IEMA has since changed the All Jobs Greener approach to Sustainability Skills, which we have also used. These amendments have improved our delivery further as exams are undertaken electronically, removing burdens on the trainers.

Have you seen improvement in environment and sustainability outcomes?

Yes. There's certainly been more engagement from the business. In order to embed the learning and see improvement, it has been necessary to follow up at a local level with management and frontline staff. Improvements include an increase in recycled waste through the new standardised approach to waste across the business. In addition, there has been greater identification and repairing of water leaks at numerous locations.

"Individuals have the knowledge, skills, tools and sense of empowerment to make sustainability improvements"

HIGHLIGHTS

- Over a period of 24 months, ARN delivered at least one level of the training to all staff
- 400 managers have gone through a certificated two-day IEMA course
- More than 5,000 frontline staff have been trained.

What benefits has the company and staff themselves gained through the training, going forward?

Individuals have the knowledge, skills, tools and sense of empowerment to make sustainability improvements in their day-to-day work. For the business, it is a very powerful statement to make that we have trained every member of staff on environmental sustainability, at a time when pressure is growing to reduce our impact on global carbon emissions and improve air quality. We can now say that every single person in our business can play a part in reducing these impacts.

How did it feel to win, and what did you think of the awards ceremony?

A feeling of gratitude that we were being recognised for the hard work we put in and the positive difference we had started to make to the business. Being the first winner announced made the rest of the event even more enjoyable. The venue was excellent, with the presenters both engaging and doing what they needed to do in a timely manner. 🏆

CONNECT

SOCIAL AND COMMUNITY NEWS FROM IEMA

IEMA FUTURES

Employability Skills Webinar



As May usually brings many students and soon-to-be graduates into the profession, IEMA Futures hosted an Employability Skills Webinar on 5 May. This was designed to give support and advice to those who are entering the profession and looking for suggestions and opportunities on how to get a foot in the environment and sustainability working world. IEMA Futures' Kirsty Peck, Simone Codrington and Beccy Wilson joined Dan Bond of Acre for a careers discussion, with some top tips for preparing a great CV and navigating the graduate and entry level recruitment process:

- **Keep your CV punchy and focused on the role, and use your experiences to give context to any key skills listed**
- **Keep your LinkedIn profile up to date – many employers will look at these during the application process**
- **Get involved – show enthusiasm by applying for industry volunteering opportunities and attending networking events**
- **Focus on applying for roles that suit your ability – but also apply to some that do not, as you may still be the best candidate for the job!**

Remember that industry experience is important, but skills can also be demonstrated through other roles such as sports captain, part-time work and mentoring schemes.

The recording of the webinar can be found at:
iema.net/event-reports

QUOTE UNQUOTE

This was @iemanet's 1st webinar with all panellists on video! And in a poll, 80% of delegates said they had 'learnt lessons during Covid-19 about how they work that they will be able to use afterwards'. When this is all over, work & webinars many never be quite the same again...

@MAREKBIDWELL



@penny_walker_sd discusses the value of holding virtual coffee mornings with other #environment and #sustainability professionals during #COVID19 and shares tips on #remoteworking, #elearning resources & keeping sustainability a priority. bit.ly/3eZxiLn @IEMANET



Wow! Our first #GreenThinkers by zoom was brilliant, discussing @Costingtheearth's Covid-19 broadcast. Covering all sorts of topics from the impact of the virus on travel, nature, politics and climate. Thanks to @tomheapmedia and @flimsin and all below...

@MAREKBIDWELL



Thanks Marek for organising the latest GreenThinkers meeting online. So pleased you have adapted and continued! I really enjoyed this new format and the debate was interesting and informative as always.

@ANNA_LISAMILLS REPLYING TO @MAREKBIDWELL @COSTINGTHEEARTH





Why did you become an environment/sustainability professional?

To save the world. I love this planet, but we have made an awful mess of looking after it. We have the solutions we need to build a sustainable future, but there is not a second to lose, so that's what I spend all my time doing.

What was your first job in this field?

Trade effluent officer for Strathclyde Regional Council.

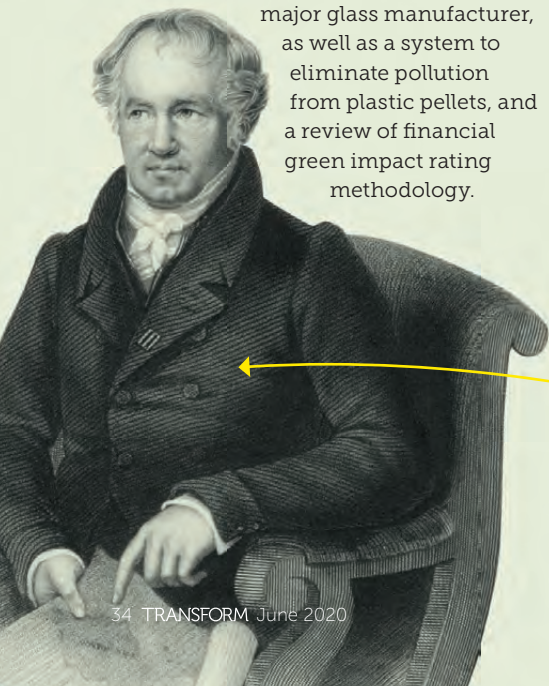
How did you get your first role?

In the teeth of recession, after applying for 1,500 jobs that I didn't get.

What does your current role involve?

I am working on climate emergency planning, which involves a wide range of specialisms, depending on the client. A typical project requires a holistic approach to greenhouse gas emissions modelling, energy and resource efficiency, renewables, transport, sustainable construction, land use, sustainable agriculture, fisheries and blue carbon, planning and green finance. I also work on commercial projects, developing circular economy business models. I am managing a long-term project to develop a corporate integrated waste minimisation programme to achieve zero-waste

operations across all sites of a major glass manufacturer, as well as a system to eliminate pollution from plastic pellets, and a review of financial green impact rating methodology.



CAREER PROFILE

Duncan Oswald

FIEMA CEnv

Senior consultant, Eunomia Research & Consulting Limited

How has your role changed/progressed over the past few years?

Experienced environmental professionals are becoming more in demand as the world wakes up to the reality of the climate and biodiversity crisis. Clients are more aware of these issues.

What's the best part of your work?

When my recommendations are implemented, resulting in significant positive environmental outcomes. That could be a client changing the way their business runs so it has a more positive impact on the environment, or helping a local authority implement a plan that will make a difference to local people.

What's the hardest part of your job?

Not being able to do everything at the same time.

What was the last development event you attended?

Climate Bonds Initiative Boot Camp.

What did you bring back to your job?

An appreciation for how much money is looking for investment in green projects, and how to connect the two. A sustainable future is not being held back by a lack of capital.

What is/are the most important skill(s) for your job?

Keeping abreast of developments and explaining their implications in context to clients, using their own language.

Where do you see the profession going?

Towards informed, impartial and professional advocacy, helping everyone to make decisions that make objective scientific sense. The resurgence in environmental consciousness is fantastic, but it's important it is directed on the basis of objective truth; for example, reducing plastic packaging is great, but not if it results in food waste.

Where would you like to be in five years' time?

Reading that the Keeling Curve has turned down for the first time.

What advice would you give to someone entering the profession?

The more you learn, the more desperate the situation will appear – but you can console yourself that you are doing all you can.

How do you use the IEMA Skills Map?

I find it a useful indicator of competence and experience.

What motivates you?

Doing everything I can to save the planet, working with motivated, dedicated and professional colleagues, clients and contractors.

What would be your personal motto?

If you're not doing everything you can to make the world a better place, you're not doing anything at all.

Greatest risk you have ever taken?

Taking a crew of enthusiastic novices to **St Kilda**. On the way back, they were experienced sailors.

If you could go back in history, who would you like to meet?

Alexander von Humboldt. ➦



IEMA Sustainability Impact Awards 2020

Inspiration | Innovation | Transformation

18 September 2020

Register your interest now

The entries are in and the judging has begun. One way or another, we will recognise innovation in sustainability at the IEMA Sustainability Impact Awards on Friday 18 September 2020.

During these extraordinary times it remains important to celebrate how individuals, teams and organisations take strides in transforming the world to sustainability. Showcasing the vital roles of environment and sustainability professionals will ensure that you are positioned at the heart of the societal and economic recovery.

We will continue to monitor the Government's advice on large events and will update you nearer the time on whether we will be celebrating digitally or face-to-face.

Register now

Email enquiries@iemaawards.net to register your interest in attending. We will keep you updated on the details of the 2020 awards ceremony as they become clearer.

www.iemaawards.net

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