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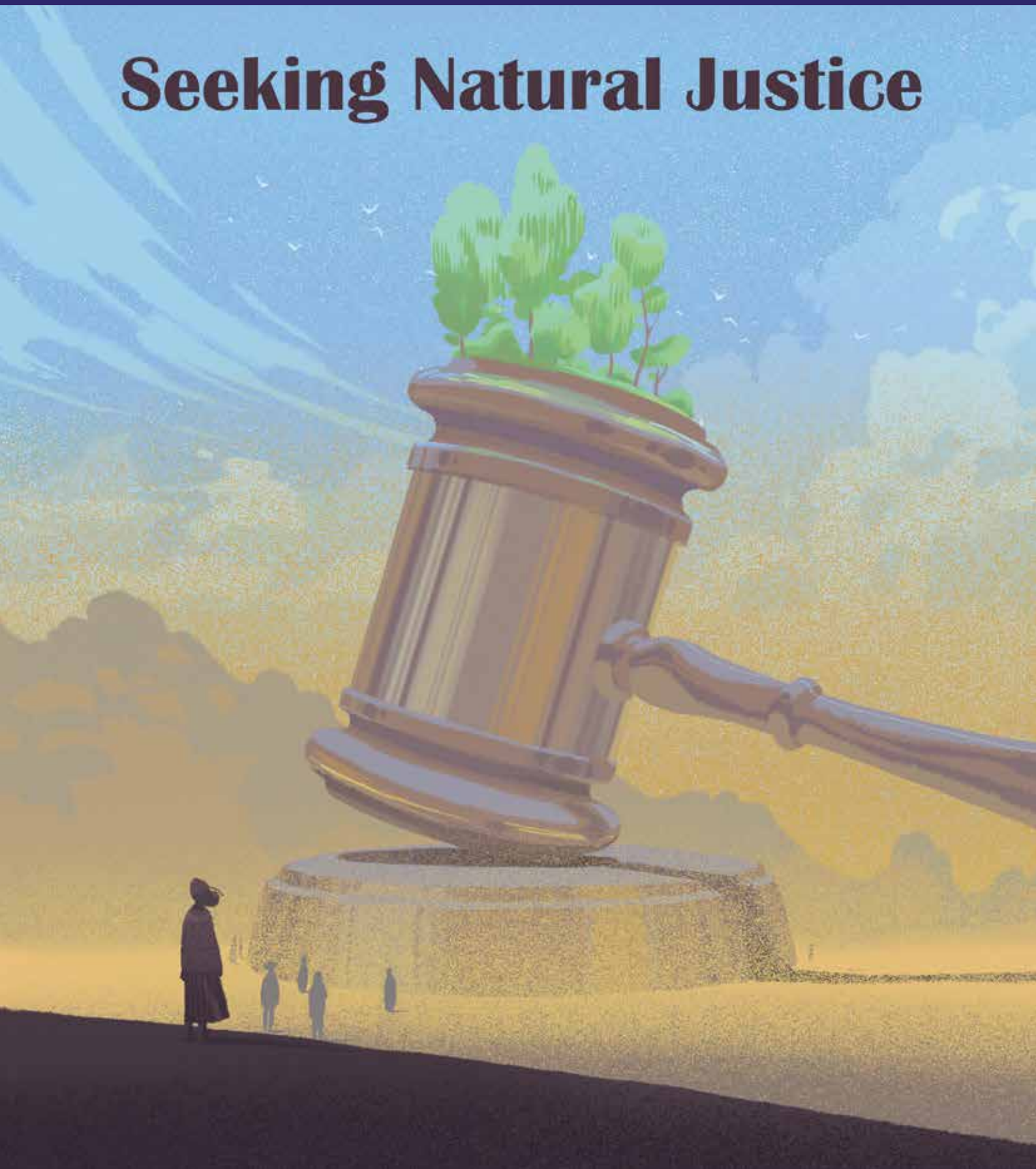
Seeking Natural Justice



EDITORIAL

The front lines of environmental injustice

Environmental injustice is everywhere. We see it in the world's most vulnerable communities who are on the front line of climate impacts, despite bearing the least responsibility. Facing rising sea levels, extreme heat, drought and food stress, they have no time for culture wars about climate change: for them, it is a day-to-day reality, an existential threat to their homes and ways of life.

We see it in developed countries too, with underprivileged and minority groups most affected. In the USA, access to drinkable water is heavily correlated with race and other sociodemographic characteristics, while in the UK young families and poorer households are disproportionately affected by high levels of air pollution. And we see it across generations, with the young and not-yet-born inheriting a crisis not of their making.

So equity and environmental justice must be at the heart of our response to the climate and nature crises. At ClientEarth, we use the power of the law to strive for greater environmental justice: strengthening laws, litigating and supporting local communities and Indigenous Peoples in using the justice system to defend their environment and their rights.

There is a growing trend of environmental justice cases being fought – and won. Last year, the United Nations Human Rights Committee decided that Australia's inaction on climate change was a violation of the human rights of the Indigenous Torres Strait Islanders. In January, Colombia and Chile asked the Inter-American Court of Human Rights to consider what the human rights obligations are for states to act on climate change. Meanwhile, the European Court of Human Rights is about to hear a landmark case from six young Portuguese people, alleging that 32 countries have violated human rights commitments by failing to adequately address the climate crisis.

But it is not only governments facing legal action. Corporations too need to be held accountable for the impacts of their activities. Attribution science – a new branch of science that investigates links between climate change and extreme weather events – can play a key role here in litigation cases to hold governments and corporations to account for their climate policies by providing irrefutable evidence of the huge risks that come with continuing to invest in fossil fuels.

To advance environmental justice, we need to ensure that the voices of those on the front line – climate-vulnerable communities, Indigenous Peoples, minority groups – are front and centre. We need to address historic inequities, with the big economies and polluters providing the finance for climate mitigation and adaptation in vulnerable countries. And we need to ensure a just transition: putting people's livelihoods and rights at the heart of our work.

The stakes are high, but the law, used in the right way and backed by science, can drive the change we need to tackle the climate and nature crises and to bring justice: for vulnerable communities around the world, for future generations and for us all.

Laura Clarke OBE is the CEO of ClientEarth. She is a determined optimist driven by the need for positive change in the world. A former diplomat, she has worked extensively on climate, environmental, and sustainability issues throughout her career, and has a deep understanding of global policy issues and international relations.

Cover design: Daniel Converio is an illustrator based in East London working in editorial, marketing and design, and is a background and concept artist for animation.

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INTRODUCTION

What is environmental justice?

Elizabeth Mullings-Smith
wonders what we must do to achieve the normalisation of environmental justice.

Environmental justice, or eco-justice, is a conscious movement that seeks to address environmental inequality as a new paradigm for achieving healthy and sustainable environments and communities.[1] It has generated a vast vault of multidisciplinary discourse covering the many layers of environmental and social inequalities across the globe, especially in the global south.[2] However, it is important to dispel the belief that such environmental inequalities are restricted or limited to poor or marginalised communities within such developing economies.

Environmental injustice, which manifests as environmental inequality, occurs in myriad forms across the world. Often, this is because of formulaic developmental decision-making through the established economic and political lenses of governments, without the benefit of the critical third lens of environment and community wellbeing, which often is sacrificed or blatantly disregarded.

Environmental inequality is well-known at an international level. Climate-related disaster losses, as a percentage of GDP, are 4.3 times greater in low-income countries than in the high-income countries responsible for a disproportionately high share of historic carbon dioxide emissions.[3] This inequality also occurs at more granular country, region and city levels. Here, communities have raised concerns over the distribution of environmental and human impacts and costs of development, leading to calls for environmental justice: the bringing together of environmental protection and social justice goals within governance frameworks at local and national levels.

As with most concepts and actions that invoke transformation at an international level, success has many parents. Many have claimed the genesis of the environmental injustice movement. However, it is important to understand what led to the transformation in awareness of inequalities, with respect to access to an environmental framework that enables and supports societal and ecosystem wellbeing (see **Box 1**).

BOX 1. THE HISTORY OF ENVIRONMENTAL JUSTICE

Research on environmental injustice began in the late 1970s, after residents of a Black middle-class neighbourhood in Houston, Texas, discovered that the state would permit the siting of a solid waste facility in their community. Sociologist Robert Bullard was tasked with collecting and analysing the data. He found that 14 of the city's 17 industrial waste sites, accounting for over 80 per cent of the city's waste, were situated in Black neighbourhoods, despite only 25 per cent of Houston's population being Black. This raised an important question in residents' minds: why was it being placed there and not in the white neighbourhoods nearby?

The findings from the Houston investigation were the first to systematically show that environmentally harmful infrastructure was more likely to end up where minority populations lived. However, there was a bigger concern that this was not only happening in Houston. Under civil rights legislation, cases of environmental racism were brought forward over the siting of hazardous waste disposal sites in communities of colour.[4]

In 1982, a high-profile case involving the disposal of soil contaminated with polychlorinated biphenyls (PCBs) in a predominantly African American community in Warren County, North Carolina, catalysed national protest. The community was designated by the state of North Carolina to host a hazardous waste landfill to store 60,000 tons of PCB-contaminated soil. In response, the National Association for the Advancement of Coloured People staged a protest of over 500 people. While the protest failed to prevent the siting of the disposal facility, it did provide a national start to the environmental justice movement.

In 1983, a federal report confirmed what Bullard's research had shown: Black communities in the South were home to a disproportionately high percentage of waste sites. In 1987, a study commissioned by Benjamin Chavis, a minister at the United Church of Christ who had been involved in the Warren County protest, took that conclusion nationwide. In almost every location examined, the best predictor of whether someone would live near a toxic waste site was race, even after applying controls for geography and income. The conclusion was that inequality with respect to dangerous environmental exposure was worse for poor and minority communities.[4] While at the outset environmental justice was prominently related to the inequitable distribution of waste and pollution, the term has come to address a broad number of substantive problems, struggles and aspirations.

In 1991, over a thousand people attended a conference in Washington DC, resulting in a draft of 17 Principles of Environmental Justice designed to guide the growing research, activism and policy transformation. These principles are still used today by many environmental justice groups around the world. The principles include a clarion call to build a national and international grassroots movement for environmental injustice and include considerations on environmental injustices facing current and future generations and the environment.[5]

THE RISE AND STALL OF THE SDGS

The 1992, the first Earth Summit considered environment and justice issues together through the development of the Rio Declaration. Fast forward to 2015, when the United Nations launched the 2030 Agenda for Sustainable Development. This outlined 17 Sustainable Development Goals (SDGs) that require international action on the global challenges of inequality with respect to environment, development, climate and justice by 2030. However, as a potential international driver of change regarding environmental injustice and social inequalities, the SDGs do not incorporate an explicit focus on environmental justice. This weakens the resolve of governments in their focus on the real disparities that exist regarding environmental and social inequalities and in their achievement of the broader aim of the SDGs: to leave no one behind.[6]

ENVIRONMENTAL JUSTICE IN EUROPE

While environmental injustice advocacy has been on the rise globally over the last few decades, corresponding research in European countries has remained sparse.[7] Not all nations see environmental justice as central to policy development, decision-making and governance.

Whereas the US environmental justice policy and ensuing legislation were a response to grassroots civil society action, European policy was developed almost two decades later. It was driven by the response to intergovernmental agreements on human rights to a clean and safe environment, to protect the environment, and to environmental information and participation in decisions affecting the environment.

These rights were established in the 1992 Rio Declaration and through the United Nations Economic Commission for Europe Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (the Aarhus Convention) – whose objective is to 'contribute to the protection of the right of every person of present and future generations to live in an environment adequate to his or her health and well-being'.[8]

ENVIRONMENTAL JUSTICE IN THE UK

Environmental inequalities in the UK have been actively researched since the late 1990s and the UK arguably has Europe's best-developed environmental inequality evidence base.[9] This research has focused on the level of

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deprivation as a prime driver for social exclusion. While environmental inequalities in the USA led to specific legislation and the creation of a national government body to champion environmental justice, the UK has not developed a comparable response despite the credible and robust evidence.

Progress towards environmental justice in the UK has been slower than hoped for. This cannot be attributed solely to changing political priorities and stakeholder conflict over objectives. However, the UK has devolved oversight of this issue though the Local Government Act 2000 and Localism Act 2011. The Equality Act 2010, introduced to tackle discrimination and disadvantage, identifies nine protected characteristics but does not include socio-economic status. As such, environmental justice in the UK is highly multifaceted and has been characterised as a messy challenge; one, that in the absence of clear leadership, resists the development of ready and sustainable solutions.[10]

THE DEADLY COUPLING

In more-developed economies, adverse impacts from development are more likely to affect communities of lower socio-economic status (measured by income and migration background), who are unable to deploy any form of environmental shielding, unlike higher-income households in the same city.[12] Often, oversight for this is devolved to local governments that do their best to ease pressure but have no firm support and national-level platform to alleviate and eliminate such inequalities.

Climate challenges across the globe exacerbate a widening spectrum of serious social concerns, particularly in lower-income, minority and marginalised communities that suffer from social inequity attributed to environmental inequalities, regardless of the country's development status. In such circumstances, people, the communities to which they belong, and the environmental paradigm in which they live and work are often treated as a collective, expendable commodity whose tangible losses can be monetarily compensated for.

This arises due to the lack of understanding and acknowledgement, and the incorrect quantification by governments of the real value of the environment and the ecosystem services it provides. There also is a lack of understanding that some important benefits

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are by nature unquantifiable but critical to community functionality and the integrity of space, place and economy. The environment is often compartmentalised by governments to demonstrate to the international arena that they acknowledge focal areas such as the SDGs, the requirement for national programmes to combat climate challenges, the need for gender equality, and the safeguarding of vulnerable sectors of the community.

Public speeches showcasing active programmes on environmental protection, climate challenge interventions and community safeguarding are often made by government leaders in isolation and often do not reflect the realities of 'home grown' environmental injustices being inflicted. This dislocation of thought, reality and responsibility leads to sectors of the community and the environment falling between the cracks. Decisions regarding major economic development investments and infrastructure programmes often do not employ cross-ministerial collaboration or debate in the decision-making process; nor do they seek to incorporate community safeguarding processes unless there is an overriding political benefit.

Infrastructure development projects and extractive industry activities approved by some governments, especially in developing economies, often focus on the ultimate financial and political gain at the expense of their communities and environmental integrity. In some cases, the consequences of such disregard have led to impacts and losses that are immediate, grave and life-changing for individuals and communities. For some governments, the economic drivers and perceived benefits are often calculated as a robust and tangible return on investment, acting as opportunity blinkers and preventing a more holistic approach to decision-making and good governance.

This frequently happens in developing economies with private, inward-investment development opportunities. National laws created to protect the environment and ecosystem services are circumvented using hastily crafted policy changes or special legislative instruments designed to woo and favour overseas investors at the expense of civic responsibilities and environmental safeguards.

However, even with myriad examples of the grave consequences of such blinkered decision-making processes, governments will override their own legislative instruments because of an overarching perception of the environment as a development and investment-limiting factor, that is lightly engaged with but not allowed to shape or influence inward-investment opportunities. When opposition arises through civic participation and organisations that advocate for governments to adopt a more holistic approach to the development decision-making process, it is often weaponised, demonised and criminalised as anti-development, anti-growth and anti-state action. Only when consequential environmental losses have grave economic and political impacts is the importance of environmental safeguarding seen as important and acknowledged as erroneously overlooked.

SO WHERE DO WE GO FROM HERE?

During the past three decades, environmental justice terminology has spread spatially and evolved temporally, embracing new political meanings, aspirations and dimensions in different contexts.[12] Debates on environmental justice have made productive contributions that have expounded the dimensions and knowledge base of justice and equality; by extension, they have created interconnections and access conduits between institutions, communities and individuals, highlighting the plurality of environmental justice across diverse cultural, social and environmental contexts.[11]

Can there be some consensus or movement of the needle regarding holistic decision-making within governments with respect to investment programmes for economic and social growth and development? While the SDGs as a potential international driver of change do not focus on environmental justice as a goal per se, they do raise the level of awareness and focus of governments and institutions. As such, we need to allow them to run their course to 2030 and galvanise the need for greater resolve regarding achievement of justice in the next global goal-setting cycle.

At a more local level, we need to reshape the language of government. The first level should be a concerted effort to reshape perception of environment and to decompartmentalise it within government. The environment is a governmental responsibility, and environmental science provides a critical grounding and reality check to the decision-making process. Environmental injustice is a cross-cutting theme, and every level of government has some contribution, responsibility and oversight for it.

It is also important for governments to meaningfully enable justice through policy; to reflect its importance and relevance in good governance and its role in maintaining the integrity and wellbeing of space, place, livelihood and lives.

Last, but by no means least, we can enable a change in perspective and understanding by incorporating environmental justice into the secondary school curriculum. Exposure to current and modern history examples, engagement in civics and the encouragement of good citizenship may enable transformation in understanding in the minds of future generations of the need for environmental equality, fair treatment and meaningful involvement of all – regardless of race, colour, heritage, income or livelihood. A pilot project is underway at the New York City Lab School for Collaborative Studies, a public school in Lower Manhattan.[12]

INTRODUCTION

By bringing environmental justice into the classroom alongside the ethos of critical thinking, it is possible to enable a more powerful model for civic engagement through knowledge enrichment of environment rights, the corelation of environmental and human health, conscious consumerism, the power of individual choice, and a realisation of our mutual dependence on an environmentally sustainable future.

With the rise in the importance and relevance of environmental justice, I am grateful to the IES for bringing it into focus in this issue. Hopefully, it will raise greater awareness, stimulate important conversations, impact decisions in education, policy making, design, development and governance, and enable a normalisation of environmental justice.

ES

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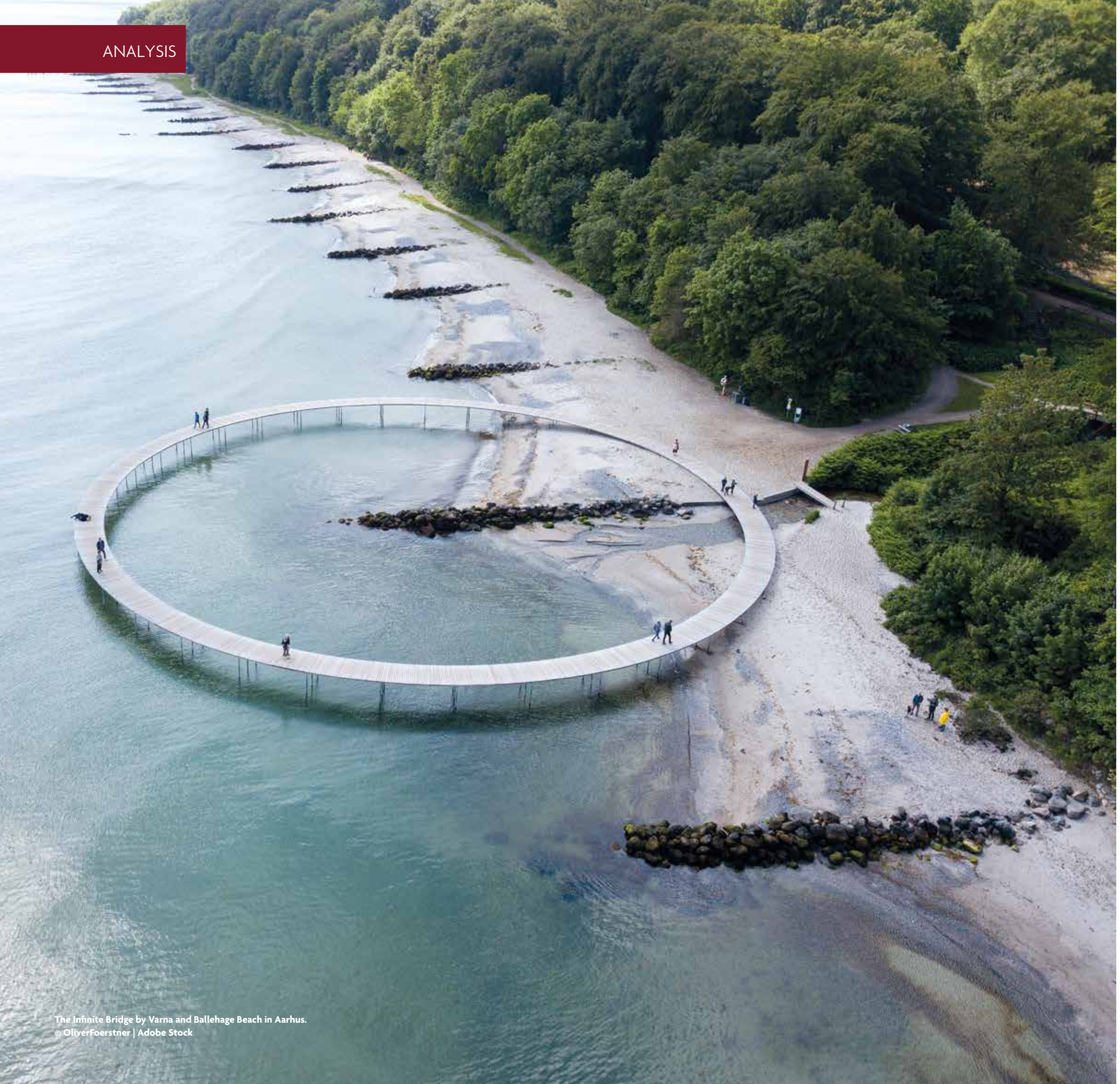

The Infinite Bridge by Varna and Ballehage Beach in Aarhus.
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ANALYSIS

The Aarhus Convention's new frontiers

Anna Berti Suman evaluates these new areas that range from democratising environmental information to the use of civic evidence in law enforcement.

Increasingly, ordinary people are entering spaces traditionally allocated to appointed environmental authorities and claiming the entitlement and capacity to gather environmental information. This particularly occurs when people perceive that the competent institutions tasked with these roles are not addressing a certain environmental matter sufficiently, or at all. These engaged 'civic sentinels' – people who alert authorities of unspotted environmental issues – take care of public spaces and environmental resources voluntarily. In contexts of environmental distress, organised civil society can turn into a source of (counter)information for fellow citizens.[1] In the UK, for example, the work of such citizens plays an important role in exposing the release of raw sewage to rivers.[2]

Person performing civic environmental monitoring
© Andrea Marinelli, Photographer for Sensjus

BUILDING ALLIANCES

Often citizens build alliances with scientists and experts, who in turn see the collaboration with communities and citizens as a way of putting their knowledge into the service of the common good, showing greater flexibility compared to the traditional 'ivory tower' of the expert world. These experts are often ready to mediate communications between citizens and competent institutions, such as environmental protection authorities. By discussing their methods and results, scientists and experts help to ensure the credibility and rigour of citizens' monitoring activities, bringing ordinary people to the decision-makers' table. In the UK, for instance, there are numerous examples of public authorities and even private companies making use of citizen science and considering it a complementary information source to better manage environmental matters such as river water quality.[3]

Civic sentinels know that environmental conflicts ask for alliances with the technical and scientific world to gather rigorous and credible evidence of environmental problems that will complement or at times even substitute the official data. Civic evidence on environmental matters can be both scientifically sound and oriented to advocacy when the stakes are high, but the two drivers are not necessarily in conflict if scientific rigour is preserved.

CHALLENGING THE STATUS QUO

This trend of people recapturing the ability to monitor their environment is challenging environmental law and governance structures.[4,5] A particularly valuable instrument to legitimise the contribution of civic sentinels is the Aarhus Convention – the United Nations Economic Commission for Europe (UNECE)'s Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters of 1998 – which came into effect in 2001.[6] The Aarhus Convention grants every citizen and environmental organisation a set of procedural environmental rights, which aim to increase public access to the environmental information held by public authorities (Articles 4–5); enable public participation in environmental decision-making (Articles 6–8); and allow the public to review procedures to challenge public decisions before the courts, thus accessing environmental justice (pursuant to Article 9).

Recently, the Aarhus Convention recognised the role of civic contributions through scientific data (in particular, citizen science) as a legitimate source of environmental information. Specifically, in 2020, the UNECE issued a call for a *Consultation on the Recommendations on Electronic Information Tools*, a document within the Aarhus Convention system.[7] Thanks to the advocacy of experts from the European Citizen Science Association (ECSA), the recommendations were revised to include citizen science within the range of information sources that can and should be used in environmental monitoring and management (for details on the recommendations, see **Further Reading**).[8] This demonstrates a growing recognition within the Aarhus Convention system of an active role by civil society, not only as a passive receiver of environmental information but as a source of information as well. It is argued – based on a broad interpretation of the Convention – that a civic 'right to contribute environmental information' might even be defended.[5]

EXPLORING CONVENTIONS IN ACTION

The recognition of ordinary people as a legitimate information source for authorities and other citizens may question the traditional allocation of roles and responsibilities between the public and institutions and between concerned people and experts. This can eventually create social turmoil and even challenge representative democracy.

During the ECSA's 2022 conference, participants were asked to reflect on this matter in an interactive session titled *The wickedness of citizen science, law and planetary health: grappling with trust, democracy and representation*.[9] Participants were asked to defend pre-assigned arguments that they had to develop in smaller groups and then expose against opposing parties, similar to a court setting. The aim was to address questions including: what are the implications for democracy of bringing citizen science into the courts; is using law and international conventions to exclude the role of national public authorities when conflicts about environmental management arise; and is citizen science improving the system by opening up institutional informational monopolies, or rather weakening trust in science and institutions? The participants applied these questions to actual cases, drawing on the results of the Sensing for Justice research project, which explores the use of citizen-gathered evidence to support environmental law enforcement.[10]

One set of participants was asked to advocate in favour of environmental groups taking their governments to court for inaction on protecting the environment, using civic evidence as an effective way of coping with governmental failures and offering institutions resources that they lacked. This group contested the fact that governments were not allocating resources to monitor what mattered to people. They also argued that bringing governments to court based on citizen science was a way of forcing them to comply with existing laws (such as those implementing the Aarhus Convention) and ensuring that governmental monitoring was not cowed by corporate interests.

Your Rainbow Panorama, Aarhus. © Frankix | Adobe Stock

The group advocating against the use of civic evidence argued that the action of civic sentinels bringing the government to court was damaging the government's attempt to balance interests and allocate resources. Furthermore, they argued that it could risk further polarising the debate and spread fake news. Lastly, they noted that all this might create a precedent that would stimulate a loop of civic contention, hampering the smooth identification and deployment of governmental priorities and agendas.

The session hinted at but could not address in depth the complexity of the matter(s) at issue. There are other aspects to be considered, such as local nuances, the role of appointed experts, and the disparities between citizens from different social and economic backgrounds, their scientific literacy and their ability to access digital resources (see **Further Reading**).

CONCLUSIONS

Over the more than two decades that mark the existence of the Convention, the legal text has been praised by academics and civil society, including environmental defenders, as a potential revolution in terms of democratising environmental decision-making. Some have qualified the Aarhus Convention as a fully fledged human rights treaty, rather than a mere multilateral environmental agreement, being the only legally binding treaty to date that mentions the right to a healthy environment.[11,12] Others have defined the Convention as the driving force for environmental democracy.[13]

Despite these promises, numerous expert observers of the Convention's application have pointed to challenges and dilemmas in its ability to foster the inclusion of civil society in the environmental debate in terms of accessing environmental information and access to justice.[14,15] In 2018, an initiative was launched to evaluate the current application of the Convention by the EU after the Aarhus Convention Compliance Committee found that the EU did not comply with the Convention because of insufficient administrative or judicial redress at the EU level.[16,17]

Recent reflections in academic literature, which also mirror ongoing discussions in the civil society realm, ask for an update and extension of the Convention's interpretation to align with social and technological developments. For example, in academic discourses, we find the argument that the 'contributions from the public' under the Convention (Article 6, n.7) could take manifold forms, including citizen science, and that this may be interpreted as calling for recognition of a civic 'right to contribute environmental information' to make explicit what is currently implicitly contained in the text of the law.[5,18]

Grounding civic contribution in terms of feeding environmental information on the Aarhus Convention can both foster the use of this evidence by authorities and legitimise the actions of the monitoring citizens, protecting them from possible adverse (legal) consequences of their actions.[19] However, the illustrated concerns in the application of the Convention suggest that in practice, legitimate on-paper environmental data provided by the public could still be disregarded and civic participation in environmental decision-making may still be undermined by an unsatisfactory implementation of the letter of the Aarhus Convention. ES

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FURTHER READING

For more details on the themes raised, please see:

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Pursuing environmental justice through the courts

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Bea Gilbert talks to Wild Justice's **Chris Packham** and to **Carol Day** about the legal mechanisms for achieving justice for nature. Wild Justice campaigns and advocates for better wildlife and nature conservation laws in the UK.

What is the biggest threat to achieving environmental justice through legal mechanisms in the UK, and how do barriers here compare to those of other countries?

CHRIS PACKHAM:
We are fortunate that we can use the Aarhus Convention, which is celebrating 25 years. Firstly, this means there are some cost-capping rules in play, so we can afford to take legal action within reasonable means. Without that, citizens or NGOs [non-governmental organisations] such as ours wouldn't be able to afford to act. Up until its instigation, there were notorious cases where individuals and NGOs were taken to the cleaners on costs, whether they won or lost. It's not perfect in the UK, and the Convention's implementation is different across Europe in probably every country. There are some things the UK has not signed up to but, nevertheless, Wild Justice has been able to operate under the terms of the Aarhus Convention. And so was I when I took on my HS2 case; it would have been impossible otherwise.

There are a couple of handicaps that are unaddressed under that Convention, and one is time. When we explore potential litigation against the statutory bodies of government, they don't stick to the proper time conventions at all, kicking the ball into the long grass and asking for extensions. This makes life difficult, especially if we have a deadline by which we must send in our pre-action protocol letter. There is more flexibility to instigate actions in other European countries. Here it can be quite prohibitive. We're really fortunate at Wild Justice to have Leigh Day; their staff are on the ball when it comes to environmental cases. But if you don't have access to a team of environmental lawyers of that calibre and experience, then you will probably be in trouble because you won't meet the deadlines.

OPINION

The other thing I would say is about freedom of information requests (FOIs). It's infuriating that we have to ask statutory bodies for their findings or policies, when they are funded by UK taxpayers. They should be a lot more forthcoming. FOI processes can take months, even though there's meant to be a 20-day limit. So when it comes to exploring potential injustices or the law not being upheld, we need more data, and sometimes it is the people we will be challenging who have it. Sometimes, they have the capacity to withhold that data, and this goes against the Convention. Part of Aarhus is that we as citizens should have access to information – it's the first tenet. But we still have to ask for it and sometimes they will go to extreme lengths to not give it to us, or to give it to us over a time period after which we can't do anything with it.

Nevertheless, you learn to work within what you've got. This is what we have done at Wild Justice; we understand those constraints and the likely hurdles we must overcome. Sometimes these hurdles will shape what we do, but we are still busy. We've been exploring a niche that wasn't being explored by other NGOs. Other NGOs have potentially been put off because they haven't got used to what the Aarhus Convention dictates and how to use it positively, and they don't want to spend large amounts of their money on litigations they might lose when they have other responsibilities to their supporters.

Wild Justice found this gap. What we concentrated on initially was looking in more detail at the potential efficacy of the legislation surrounding shooting. We started with general licences and have moved on to the UK's notorious badger cull and other things. We're still learning, and the people we take on are still learning too. Before Wild Justice, these sorts of debates didn't happen. When we initiated it, what I certainly imagined was taking people to court and essentially winning in order to overcome obstacles where laws needed updating and changing. I've come to realise it's not all about that; it's about using that process, as long as it's genuine and valid. It provides an opportunity for us to give profile to the thing we're worried about and to make a noise about it. Sometimes, whether you win or not, the opportunity to make a noise and promote discussion and conversation can be equally valuable, because you change public perception. Certainly, the progress we made over general licencing in England and Wales meant that we didn't have to go to Scotland. They volunteered to review their licencing policy because they probably thought we would be chasing them to build on our success, so they jumped before they were pushed.

CAROL DAY:

I'm fortunate that, in addition to my role with Leigh Day, the Royal Society for the Protection of Birds (RSPB) funds me to work on access to environmental justice one day a week. In that capacity, I co-chair a group of NGOs that use the law to hold public bodies to account. This might be by obtaining environmental information or by challenging those public bodies in court, where they sometimes respond like hard-nosed city law firms, not organs of the state with a responsibility for protecting the environment in the public interest.

As Chris has said, we're fortunate to have the Aarhus Convention. However, the UK's implementation of it is patchy, and that is perhaps most acute in the Convention's access to justice pillar. The UK was found to be in non-compliance with the requirement that legal action be 'not prohibitively expensive' in 2010 and, in response, introduced bespoke costs rules for environmental cases in 2013. But since then, the regime has been subject to death by a thousand cuts with a government seeking to characterise JR [judicial review] as a campaigning tactic. The main difficulty is that where a claimant's cap on adverse costs liability was fixed under the original 2013 regime, the cap can now be varied on application from defendants and interested parties. This removes advance certainty for claimants about costs, and research demonstrates this change is preventing good, arguable cases from coming to court.[1] The UK is under an obligation to address the issue of costs by October 2024, so hopefully we will see the damaging changes of the last decade reversed in the next 12 months.

Another access to justice issue is the current parameters of judicial review. The Aarhus Convention requires parties to provide a review of procedural *and* substantive legality, but the current JR process is almost wholly focused on procedural legality. Perhaps the most perverse aspect is the more significant (i.e. political) the issue (take the HS2 case Chris mentions), the more the court will exert a light-touch review. A number of NGOs, including the RSPB, have complained to the Aarhus Convention Compliance Committee about the scope of JR in the UK. The outcome of that


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complaint is awaited. If, as one hopes, the committee finds the UK wanting, the courts will hopefully have to grapple with the substance of cases much more than they currently do.

Do you think it's more effective to act as much as possible within the constraints of current laws or to change these laws altogether?

CHRIS PACKHAM:
A bit of both. We must be thankful that when we were in the EU we had pretty good legislation, such as the Habitats Directive and the Birds Directive. Without them, a lot of wildlife in Europe and the UK would be a lot worse off. But the laws were frequently contravened or abused. For example, the derogations taken in Malta under the Birds Directive that allowed the hunting of turtle doves in spring were improper, unethical, unsustainable, and therefore we campaigned against them. However, a framework provides something to complain about if laws are not being upheld. What worries us now in the UK is the EU reform bill in terms of redrafting; we fear that laws will be weakened rather than strengthened and potentially not updated and fit for purpose in 2023. The world is moving very rapidly when it comes to our climate and biodiversity crisis. At the same time, we have an opportunity during the redrafting and modification to input into these laws to make them better for contemporary purposes.

CAROL DAY:
Definitely both. Much of our current environmental legislation is not enforced. We don't know the current state of most of our sites of special scientific interest because Natural England doesn't have the resources to monitor them properly. For the same reason, the Environment Agency is not enforcing minor pollution breaches. We need to ensure our current laws are effectively enforced, but we also need new laws to ensure the UK is in step with EU and international thinking. The EU has just passed a nature restoration law to place recovery measures on 20 per cent of the EU's land and sea by 2030, rising to cover all degraded ecosystems by 2050. If these targets are not met, Member States will be held accountable in the Court of Justice of the European Union (CJEU). The UK has just failed to meet every nature target in the Environment Act 2021, but unfortunately we no longer have the CJEU to fall back on.

The UK also needs to keep step with international thinking. Wildlife and Countryside Link is currently calling on political parties to include a manifesto commitment on the introduction of an Environmental Rights Bill to put the Aarhus Convention into domestic law.[2] This would include the requirements of the three pillars – access to information, public participation in decision-making and access to justice in environmental matters – but also the central objective of a right to a clean, healthy and sustainable environment for current and future generations. To achieve this, public bodies would be under a duty to act compatibly with that right and, in the exercise of their statutory functions, they would need to give due regard to that right and to recognised environmental principles, such as the precautionary principle and the principle of non-regression. Such a bill is urgently needed in the wake of a climate and biodiversity crisis and a situation in which people are disillusioned by public body inaction.

What trends or divergences have you seen in the forms of injustice you've come across, either within the work of Wild Justice or in the wider natural world?

CHRIS PACKHAM:
Sewage and pollution in waterways due to poor regulation. It impacts all sections of society, from naturalists and conservationists to anglers, wild swimmers and water companies. It's the result of an injustice due to the privatisation of those companies and the lack of investment in infrastructure that would have prevented leaks or sewage dumping. What's been going on with the regulator? Wild Justice's exploration at the moment is with some of the water companies, with the regulator and with the Environment Agency. It goes round in circles of passing responsibility, but there will be (whether from Wild Justice or elsewhere) a flurry of cases in the near future, where people are held to account legally.

Outside of that: tree-felling and the impact on breeding birds. Badger culling in Northern Ireland – we haven't reached anywhere near our interest in that being resolved. And on a weekly basis we open the emails we're fortunate to receive from our followers and subscribers and see so many other cases of environmental injustice. The thing for me is to know that winning is [about] not giving up. We're not going to ever be in a position where we think we've achieved what we needed to achieve, and we don't pick our fights necessarily because we think we might obviously win them. Often it's because we think there is a legal opportunity for us to prove that it's the right thing to do.

CAROL DAY:
As Chris says, the chickens are coming home to roost. Water and air pollution are obvious contenders and climate litigation is pivotal. I don't think our courts have grasped the gravity of the environmental crises we face yet. Wild Justice's case against Ofwat [the water regulator for England and Wales] was unsuccessful because it could show, at that time, that it had initiated one enforcement action, when it's screamingly obvious that Ofwat's failure to ensure sewage treatment works have been fit for purpose for the last 25 years is largely why our rivers and seas are in such a dreadful state.

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How do you know when justice has been achieved? Can it be achieved, or does it work on a scale?

CHRIS PACKHAM:
I think the justice we see implemented comes from the profile and support our cases achieve. Beyond Wild Justice, we see a wider awareness of injustices entering the public debate in media or social media. If we've been part of raising the profile of injustice, then that's really important; it's only through creative conversation that we can see meaningful changes. I can't deny that it's good to get a direct change in policy, but that is still incremental because the changes are complex and we're working in a system which is largely risk averse and constantly barracked and lobbied by those with vested interests. It's quite difficult to get an organisation like the Department for Environment, Food and Rural Affairs to take a U-turn. They don't only have to satisfy Wild Justice, but also the British Association for Shooting & Conservation, the Moorland Association and the Wildlife Trusts. They need to try to find a line to keep everyone quiet. My clear message is it's not going to keep us quiet. We won't be placated by a bit of shuffling in the right direction and decisions not being made or prolonged consultation. All these techniques, which seek to undermine our venture, will be robustly resisted, and we will work hard to make sure we get justice.

Aside from direct persecution, our wildlife faces injustice in the forms of habitat encroachment, pollution, etc. How and where does Wild Justice draw its battle lines?

CHRIS PACKHAM:
We're a team of three people and we need to know our limitations. We can't take on all cases. We have to think about how we fundraise and guarantee we will put this money to good use, and [that it] is a cause supported by our supporters. We equally have to liaise very closely with lawyers to make sure certain cases can get off the ground; there might not be legislation in place for us to even challenge. We can't do everything and would like to do a lot more.

But one of the key things we *have* done is inspired more people to do what we do. A case taken up by Trees for Life in Scotland used the Wild Justice model. We helped them put their case together and we gave them some money. We want people to entirely copy what we're doing and apply it elsewhere. If we set a blueprint for how citizens can empower themselves to challenge environmental injustice, then that's part and parcel of Wild Justice's job as well. We willingly share information because we're interested in getting a result.

There's a fund called the Forensics Fund. If a bird of prey is killed in the UK and the killing is under investigation by the police, the bird goes to a lab to determine what happened to it. Some of these investigations can be quite expensive, so we contribute to a fund that can be used by police to cover the costs. We may never be involved in those cases, but we've contributed to those who are to potentially facilitate them going to court.

CAROL DAY:
It's really heartening to see other groups adopting the Wild Justice model. River Action is a dynamic new organisation using the law as one mechanism for change, and I know of at least one other group waiting in the wings. That's not to say the larger NGOs are redundant, but groups like Wild Justice can be fleet of foot and willing to take (calculated) risks, which is refreshing and exciting!

Your work hasn't been free of retaliation. What do you think determines who 'wins' these disagreements in a legal context?

CHRIS PACKHAM:
There has been expected retaliation legally because of vested interests. These people can go down proper avenues of resisting and we've had robust reprisals from various groups. We're seeing that at the moment: general licencing with regard to releasing game birds near Special Areas of Conservation and Special Protection Areas has changed, and there's a threat now from one of the shooting lobbies to contest it legally. That's fine – we would end up doing the same if the licencing hadn't been modified.

We campaign for reform with things like general licences. We said there were certain practices and species within general licences that didn't need to be there. There is ongoing conversation about how licences are granted and how they should be used.

Where it isn't tolerable is when individuals or groups step outside of the law and retaliate in an undemocratic and irrational way. Personally I expected this, and I don't expect it to decline; I expect it to escalate. The problem is because of the climate and ecological emergency we are asking people to change their minds more quickly than they want to, and we have run out of time for diplomacy.

In other cases, we have tried for many years to debate pros and cons – for example, in raptor persecution. For a long time – for 30 or 40 years – stakeholders sat around a table and debated the end of bird of prey persecution, but we now see more raptor persecution than in the last 30 or 40 years. We've run out of time and patience, and we've run out of birds. It's obvious, therefore, that we are going to lobby for mandatory change since conversation didn't work; there is a whole industry (driven grouse shooting) underpinned by criminal activity. There is no ambiguity – we have the data and have been able to satellite track birds with contemporary technology we previously didn't have. Retaliation is inevitable.

OPINION

I am encountering the same thing from the fossil fuel industry at the moment because of protest about new oil and gas exploration. It's not a surprise, and it's bad business as usual.

We now know that since 2018 we've lost nearly 100 hen harriers, which have disappeared on or near driven grouse moors under mysterious circumstances. We equally know that that's the tip of an iceberg. If that many have gone missing and those are just the ones with the satellite tags on, what about all the ones that are hidden because they were not satellite tracked? What we're looking at is a systematic slaughter of these harriers and other species to underpin an unsustainable and environmentally intolerable industry: driven grouse shooting. What's galling in a very small way is we're campaigning against illegal activity, and there's no ambiguity about that. It's not like we're saying there is a difference of opinion. It's illegal – and it has been since 1954 – to kill birds of prey, and it's still going on.

CAROL DAY:
As Chris says, winning isn't always obvious. And we have to be sanguine about what JR can achieve. Environmental JRs are twice as likely to succeed as non-environmental JRs, but the success rate is still only 10 per cent. Clarifying the law can be a win. You can lose the legal case but win the overall campaign – it's rarely just about the law. But the law can be a lever for change, and it continues to be an honour to play a part in what Wild Justice is achieving. ES

Chris Packham CBE is one of three directors of Wild Justice. The others are Dr Mark Avery and Dr Ruth Tingay. Chris is a broadcaster and environmental campaigner whose public-facing campaigns focus upon illegal or unsustainable shooting practices in the UK and Europe, and broader issues of biodiversity loss and climate breakdown. **@ChrisGPackham**

Carol Day has worked in the environmental sector for over 30 years, with NGOs including the Wildlife Trusts and World Wide Fund for Nature UK. She now works as a senior environmental solicitor at Leigh Day and also works part time on access to environmental justice for the RSPB. Carol was listed in the 2022 inaugural ENDS Power List and The Lawyer's Hot 100 Lawyers for 2023.

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CASE STUDY

Empowering Indigenous organisations through the ForestLink monitoring system in Madre de Dios, Peru

Ernesto F. Ráez Luna, **Víctor Milla Quesada**, **Ana Osuna Orozco** and **Joe Eisen** reveal how technology is helping communities pinpoint illegal logging and mining activities in the Amazon.

Amid modern destructive pressures the preservation of contiguous forests, woodlands, lakes and rivers in the Peruvian Amazon has been made possible by the efforts of Indigenous Peoples who live in these areas. Thanks to the botanical knowledge, traditional medicine and sustainable practices of Indigenous communities, there is growing recognition that they are the primary guardians of the forest. However, this protection also rests on the communities' ongoing resilience: their defence of territories and persistence over invasions, kidnappings, torture and killings linked to resource extraction exploitation and plundering projects has played a central role in conserving the Amazon biome. The Amazon remains a hotbed of illicit activities committed by individuals and criminal organisations, many of which act with impunity due to the complicity, negligence or inadequate resources of authorities.

▲ **One of the instructors from the ForestLink system conducting a field training visit for Indigenous communities. (© Rainforest Foundation UK)**

LOGGING AND MINING IN MADRE DE DIOS

In Peru's Madre de Dios, one of the most biodiverse regions on Earth, the two main environmental crimes are illegal logging and mining. Both are constant sources of threats and violence against Indigenous environmental defenders. In terms of logging, it is estimated that two-thirds of timber traded domestically and exported by Peru comes from illegal activities.[1,2,3] This is largely due to a concession system that grants large tracts of the national territory to logging companies without a corresponding state mechanism to monitor and enforce the law in these areas. The legal framework for logging within Indigenous territories is also culturally complex and inaccessible due to its reliance on a distorted interpretation of Indigenous collective rights. This complexity arises from native communities having to access this resource solely through contracts granted by the state, even though the resource is integral to their ancestral lands, making the process challenging to navigate and understand.

Confronted with this, communities can only monitor their boundaries – incurring costs and risks that should be borne by law enforcement – and report illegal activities and timber theft to the authorities. Officials include the Specialised Environmental Prosecutors of the Public Ministry, the national police, and Environmental Oversight Entities at national, regional and local level, such as the Supervisory Agency for Forestry Wildlife Resources and regional governments.

During enforcement processes, however, such communities are at a greater risk of fines and penalties, as they are often disproportionately targeted by enforcement actions. In other words, it is easier to fine Indigenous communities for minor offences than to pursue illegal loggers. To make matters worse, intimidation and murder of community members and local authorities who oppose illegal loggers are commonplace in Peru. Estimates show that between 2012 and 2021, at least 51 environmental defenders were murdered in Peru, half of whom were Indigenous.[4]

Mining activities also represent one of the greatest threats to the environment and Indigenous people in the Madre de Dios department. Permanent extractive enclaves along the Madre de Dios River and its Andean tributaries have gradually expanded, encroaching upon forest and aquatic ecosystems, as well as Indigenous territories. Between 2010 and 2017, this activity led to the deforestation of around 65,000 ha in Madre de Dios, becoming the primary cause of forest cover loss in the region. In a shorter period, between 2017 and 2018, it is estimated that illegal mining camps emitted 1.12 million metric tons of carbon dioxide, equivalent to nearly 24,000 ha of forest affected by deforestation or degradation, surpassing national metallurgical industry emissions by 64 per cent.[5,6] Currently, illegal mining has also led to Madre de Dios becoming the most deforested region nationally.[7]

ENVIRONMENTAL AND HEALTH EFFECTS

This mining activity also has enduring negative effects on the health of the population and the future of Indigenous children. Significant amounts of mercury and other heavy metals have seeped into the surrounding waters. This is particularly harmful to riverside Indigenous communities that rely on water from lakes and natural streams and who consider fish a significant protein source. Recent studies reveal that local populations have significantly higher mercury levels than non-Indigenous people, far exceeding the World Health Organization's exposure limit, with grave health and developmental consequences.[8,9]

In this context, communities and their representative Indigenous organisations face a triple challenge: efficiently monitoring their territories and repelling illegal activities; obtaining timely and effective responses from the state, exercising their obligation to prosecute crime and protect fundamental rights and environmental health; and sharing information and coordinating efficiently and securely between remote, resource-scarce communities and their regional organisation. In the case of Madre de Dios, this regional organisation is the Federación Nativa del Río Madre de Dios y Afluentes (FENAMAD), which represents 37 Indigenous communities and brings together several local organisations with the main objective of defending the rights of the people and the Amazon itself.[10]

FORESTLINK SATELLITE ALERT SYSTEM

The ForestLink project emerged as a collaborative effort between FENAMAD and the Rainforest Foundation UK (RFUK).[11] The initiative strives to amplify defensive and protective efforts while advocating for more effective state interventions in response to illegal activities.

The ForestLink system introduces accessible technology and empowers community observers to promptly report illegal activities within their territories, even from remote regions that lack mobile phone networks or internet connectivity. With a user-friendly app, observers gather geo-referenced data and transmit them via real-time communication satellites from isolated forest areas. FENAMAD receives and consolidates alerts onto a unified platform, facilitating case tracking and trend recognition.

Noteworthy system elements include immediate satellite connectivity, end-to-end case tracking, production of standardised and legally rigorous data through predetermined forms, and the ability to aggregate field-derived insights to identify trends and systemic territorial threats. This community-science approach significantly augments deforestation analyses in the Amazon, which predominantly depend on remote sensing. While remote sensing can detect deforestation locations, its capacity to comprehend the underlying causes or identify other concealed illegal activities not observable from space is limited. In addition, and perhaps most importantly, the digital system is embedded in FENAMAD's augmented capacity for advocacy and legal action, which has effectively prompted the authorities to respond to alerts.

Over the past seven years, FENAMAD, through the Forest Guardianship office, has translated Indigenous communities' strategic territorial vision into significant achievements. The Veeduría Forestal, or Forest Guardianship (or Observatory), is a formal office within FENAMAD focused on the surveillance and denouncement of forest-related crimes. These include identifying active illegal mining fronts beyond known areas, officially recognising and training 101 community forest observers, and conducting 20 operations involving forestry police and legal authorities, which have resulted in the dismantling of 23 illegal camps and confiscating over 195 prohibited pieces of equipment between 2016 and 2020. Since 2016, nearly 600 ForestLink alerts have

been dispatched by community observers, aiding in combatting illegal mining, logging and other forms of deforestation, and enhancing coordination with government bodies. Moreover, favourable verdicts in Indigenous communities like Masenawa and Nueva Oceania have supported community members to oppose illicit activities on their lands.

Additionally, the project has successfully aligned local surveillance efforts with swift state responses: opening an investigation, following up on the case and issuing a verdict, which highlight the potential to activate the justice system with concrete results in Peru. Here, ForestLink directly led to verdicts favouring the communities at risk, and police subsequently destroyed illegal logging equipment on site. This underscores the value of community-generated alerts, providing a more comprehensive understanding of illegal activities and enabling timely, targeted and relevant reactions. The alert-system process has also identified weaknesses and obstacles in environmental crime justice operations, such as law enforcement, legal proceedings and the judiciary, emphasising the crucial role of civic participation.

EMPOWERING INDIGENOUS COMMUNITIES

The ForestLink satellite alert system stands out for going beyond being a simple technological solution. It encompasses the local complexities through direct engagement with communities in the field, a connection that remote technologies not grounded in local Indigenous organisations cannot replicate. Although costs vary on a case-by-case basis, in general, expenses are limited to the price of several mobile phones, a training workshop, cloud storage, and one follow-up event every couple of years. The project's strength lies in crafting an affordable technology grounded in real-world evidence, unlike externally imposed one-sided solutions. Research carried out with the 18 communities participating in the ForestLink initiative concluded that:

'The fundamental impact of the project is that the participating communities, without exception, regained hope for obtaining justice within the law and renewed their willingness to guard and defend their territories, not only as a resource, but also as a factor of cultural and individual identity.'[12]

This renewed sense of empowerment has also led to a heightened appreciation of Indigenous organisation, notably embodied by FENAMAD's pivotal role. These achievements are especially promising given the need for effective forest protection strategies to tackle climate change, safeguard ecosystems and conserve biodiversity.

Realising the rights of Indigenous Peoples requires a comprehensive financial and institutional strategy, this calls for harnessing political and financial resources to empower guardianships, strengthen Indigenous organisations and transform state surveillance institutions. This imperative should be integral to global climate and biodiversity agendas.

Empowering communities with agency and decision-making authority while fostering ties with autonomously formed Indigenous organisations emerges as the most effective approach. Ensuring the robustness and sustainability of forest guardianships requires allocating budgets to key areas, such as surveillance systems, alert responses, legal territorial consolidation and Indigenous organisation functions. In terms of impact and effectiveness, such initiatives would yield substantial benefits in exchange for state and international climate funds.

While financial resources are crucial, they must be accompanied by political commitment from states and the international community to amplify the impact of Indigenous efforts. Urgent protection for environmental defenders is essential, as is addressing the economic drivers of territory destruction. Advocating for Indigenous rights must be matched by a genuine commitment to drive meaningful change. ES

Ernesto F. Ráez Luna is an independent consultant who also teaches ecology and natural resources at the Universidad Antonio Ruiz de Montoya in Lima, Peru. His work encompasses transdisciplinary research in areas such as political ecology, development narratives, public science, tropical conservation, agroecology, Indigenous Peoples and eco-health. His ongoing projects revolve around assessing the greenhouse gas emissions from extractive industries in South America, forecasting the potential impacts of a planned waterway in the Amazon headwaters, and advocating for Indigenous Peoples' rights in relation to conservation efforts.

Víctor Milla Quesada is Senior Coordinator for Latin America at RFUK. With experience of working at various international organisations in tropical regions, Víctor has dedicated his efforts to issues related to forest governance, environmental policy and tropical forest management. His work is primarily focused on empowering local forest producers and Indigenous communities through a wide range of governance initiatives. These include the creation of social organisations, safeguarding of tenure rights, equitable allocation of resource access, adoption of scientifically informed forest management practices and promotion of locally managed forest enterprises through inventive business models.

Ana Osuna Orozco started working with RFUK in 2011 when she interned for the programme in Peru. After taking on different positions focusing on policy and research and later coordinating RFUK's work in the Democratic Republic of the Congo, she assumed the role of Head of Programmes in 2020. Previously, Ana worked for the Mexican Foreign Ministry on issues related to international development. She studied international relations and holds an MSc in Environment and Development.

Joe Eisen is Executive Director of RFUK, where he has worked for over a decade in defence of community rights in tropical forests. Prior to joining RFUK, Joe studied social anthropology at the London School of Economics and worked on social justice campaigns and projects with several grassroots Indigenous, environmental and developmental non-governmental organisations in Guyana, Gabon and India. While at RFUK, Joe has been a leading force in its participatory research and mapping work and has headed up the research, policy and campaigns team before taking on the executive director role in early 2020.

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Marsha Jackson in front of Shingle Mountain. © Beatrice McBride on behalf of Denton Black Film Festival

CASE STUDY

Shingle Mountain: one community's fight against a giant

Marsha Jackson recounts her fight for environmental justice for her community and proves that grassroots activism can bring about change.

In the heart of the US city of Dallas, Texas, a story of resilience, activism and environmental justice unfolded within the community of Floral Farms. Along with a community of steadfast justice advocates, I spent five years as an activist leader fighting against a toxic waste dump and racist zoning policies on a journey traversing the landscape of adversity, systematic neglect and the transformative power of grassroots movement, My path intertwined with an ominous presence known as Shingle Mountain, a towering mound of roofing shingles symbolising not only environmental blight but also a rallying point of change and the emergence of a movement that demanded justice, accountability and a healthier, more equitable future. Beyond the shingles and pollutants, I continue to fight for equity, justice and the power of collective action.

THE EMERGENCE OF SHINGLE MOUNTAIN

My story is deeply intertwined with the community of Floral Farms, a predominantly Black and Brown neighbourhood in Dallas. My community's experiences have laid bare the intricate web of neglect, health hazards and unequal treatment that marginalised groups often face when dealing with environmental crises, and how our action can evolve into a beacon of hope for other communities fighting against the insidious impacts of environmental racism.[1]

The tranquillity of the Floral Farms neighbourhood was interrupted in January 2018 when Blue Star Recycling, a company specialising in wood pallet recycling, set up a business there. Initially, the company's intentions seemed innocuous. Ostensibly, shingles were being received for grinding and reselling to fill road potholes, but they were never resold. Within weeks the landscape was transformed dramatically: the company began stockpiling roofing shingles just 100 feet (30 m) from my bedroom, forming what would come to be known as Shingle Mountain.

▲ Shingle Mountain, November 2020. © Google Earth 2020. Image: Landsat/Copernicus

The presence of Shingle Mountain was more than an eyesore. It became a pressing health hazard for my family and my neighbours, surpassing the height of some Floral Farms homes. The magnitude of the accumulation was staggering, exceeding 180,000 tons of shingle waste within a matter of weeks, with dumping occurring from as early as 5 a.m. to as late as 9 p.m.[2] Air quality rapidly deteriorated as the neighbourhood was filled with noxious fumes. Residents suffered from a putrid odour, while airborne pollutants including dust and fibreglass caused skin and throat irritation and even breathing difficulties.

Recognising the threat posed to my community's health, I decided to act and reported the issue to the City of Dallas through its 311 service, seeking assistance and intervention. However, calls for help went unanswered. Service requests were closed without any meaningful action, leaving us frustrated and vulnerable. Despite this lack of response from city officials, community determination only became stronger. I reached out to my city council representative in the hope of finding a resolution, only to find that all attempts to engage with local government proved futile. Shingle Mountain persisted, casting a long shadow over Floral Farms and its residents. It was only when a journalist, Robert Wilonsky, covered the story in the *Dallas Morning News* that the city finally acknowledged the problem, highlighting a disturbing pattern of unequal response to environmental issues based on the community's socio-economic status.[3]

MARGINALISED GROUPS AND RACIST ZONING

The violations committed by the recycling company included having no certificate of occupancy, no special use permit and no dust-prevention measures in place.

Special use permits relate to zoning. Economic zoning has existed in the USA since 1926 and continues to shape land use. Land is divided into residential, commercial, industrial and agricultural categories, among others, and these classifications determine what can be built in certain locations, and where waste can be deposited? Although economic zoning replaced outright racial zoning, little changed in the division and legacy under the 'new' rules, meaning this policy amounts to de facto racial segregation and discrimination.[4] Race is the biggest factor determining who lives near hazardous waste sites across the country, and polluting industries are often located in communities of colour.[5,6] No waste company or concrete batching plant would be – or is – placed near more affluent residents. It is common, however, for authorities to allow this to occur in Black and Brown communities, and my organisation is advocating against any other high-polluting businesses being placed in communities near residents, schools and churches.

▲ Shingle Mountain, October 2021. © Google Earth 2021. Image: Landsat/Copernicus

We had to educate the City of Dallas that even though the recycling company's business property was zoned as industrial research and industrial manufacturing, heavy industry is not to be placed near residential areas. My property is zoned as agricultural, which calls for a special use permit for such companies, for which there was none. The inspector acknowledged the permit violations committed by Blue Star Recycling but was powerless to do anything meaningful because the city council did not take enforcement action on such infringements at the time.

ENVIRONMENTAL AND HEALTH IMPACTS

The community faced an uphill battle against the health and quality-of-life ramifications posed by the massive accumulation of roofing shingles. The environmental and social impacts were evident. The sheer scale of Shingle Mountain's existence was, in and of itself, a visual representation of the City of Dallas's disregard for the environment and wellbeing of residents. The mounds of shingles dominated the landscape and posed a direct threat to the local ecosystem. The disruption had severe consequences, leading to loss of life, property damage, land value reduction and impact on wildlife. A local child was hospitalised due to the airborne particles affecting their asthma, and in September 2018, the neighbourhood flooded during heavy rain because the creek was filled with shingles and debris blocking its flow; neighbours lost two horses during the flood.

However, the most immediate and personal impacts were felt by Floral Farms' residents. The pungent odour emanating from the shingles was a constant reminder of the pollutants permeating the air. Airborne contaminants, including fibreglass particles, coated the neighbourhood, which led to a range of health issues: residents reported skin irritation, persistent coughing and worsened respiratory conditions. For those struggling with asthma, the situation was particularly bad. The polluted air forced my granddaughter and me to remain indoors and sacrifice our quality of life and sense of normalcy.

COMMUNITY COLLABORATION AND ADVOCACY

In the face of such dire circumstances, the Floral Farms community rallied together. Community mobilisation and advocacy emerged as powerful tools to counter the seemingly insurmountable challenges we faced. My unwavering dedication ignited a spark that resonated with my neighbours, which inspired them to join forces.[7] As the situation became more widely known, residents started sharing their own stories of suffering and adversity caused by Shingle Mountain's presence. Such a collective grassroots approach to change the situation transformed isolated struggles into a united front against environmental injustice, at a time when following the city's protocols had seen no result. The community's shared pain became the driving force behind a collective determination to effect change.


© Marsha Jackson

The advocacy efforts became a priority as residents organised meetings, town halls and protests to demand action from the local authorities. My ability to communicate the urgency of the situation and articulate the environmental and health impacts garnered attention beyond the community to reach media outlets and public figures, resonating with allies from different backgrounds who recognised the significance of fighting for the most vulnerable members of society.

My path converged with those of like-minded advocates, which included Temeckia Derrough and Jim Schermbeck. Derrough is an environmental activist in the Dallas neighbourhood of Joppa and founder of the Joppa Freedman's Town Association. Schermbeck is director of Downwinders at Risk, an environmental organisation aiming to reduce particulate matter pollution. Schermbeck wrote numerous bulletins regarding the particulate matter of Shingle Mountain, and Downwinders at Risk placed air monitors on surrounding properties with the results reviewed by scientists. Their combined efforts amplified the community's voice, calling people to campaigning action, raising awareness about Shingle Mountain's repercussions and the broader issue of environmental injustice. Documentaries, news articles and media coverage illuminated the intersection between racial inequality, environmental health and the critical importance of community-led activism.

LEGAL BATTLES AND ONGOING CHALLENGES

The pursuit of justice was marked by various legal challenges, with court battles between Blue Star Recycling and property owners. Regardless of court orders and contempt charges, the clean-up process faced persistent delays and evasion. The tangled web of legal jurisdiction, bankruptcy filings and regulatory intricacies underscored the uphill battle faced by the communities that demanded environmental justice in the face of systemic challenges.

THE REMOVAL OF SHINGLE MOUNTAIN

The turning point came when the City of Dallas reached a settlement with CCRA, the landowner of Shingle Mountain. It led to the long-awaited cleanup that began in December 2020. The removal of Shingle Mountain was a monumental victory, but the fight was far from over. After its full removal by February 2021, the underlying soil was found to be polluted with lead. The city council initially said the lead was present prior to Shingle Mountain, but later funded the remediation of the property and removal of 40,000 cubic tons of contaminated soil at a cost of US$2.5 million. This soil is shortly due to be remediated to meet residential standards. Lingering health risks necessitate ongoing monitoring and remediation efforts to ensure the community's safety, and monitors will be assessing air pollution levels around the property during remediation.

COMMUNITY RESILIENCE AND FUTURE HOPES

Despite the hardships endured, the dedication and unity of the Floral Farms community serves as a clear testament to the resilience required to combat environmental injustices. I envision a future where the former Shingle Mountain site is transformed into a park – a motion that Southern Sector Rising (my grassroots, BIPOC-led organisation) is advocating for as a form of environmental reparation, uplifting Black, Brown and Latinx cultures and setting a precedent for equitable neighbourhood-led planning across Dallas.[8] It is not only healing the land but symbolises the strength of the community's resolve and of positive change.

CONCLUSION

My evolution from concerned community member to unyielding advocate exemplifies the potential for individual action to drive systemic change. My story clearly shows the urgent need for equitable environmental policies, proactive community engagement, and amplification of marginalised voices to address environmental injustices effectively. My enduring fight for justice stands as an inspiration for communities worldwide, encouraging them to stand up against injustice and work towards a sustainable and just future. ES

Marsha Jackson is an environmental activist and community leader who spearheaded the successful campaign for the removal of Shingle Mountain, a hazardous waste site that posed severe risks to her Dallas neighbourhood. Her dedication to environmental justice and community advocacy has brought about positive change and inspired others to stand up against environmental injustice.

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ANALYSIS

Scientists to the rescue!

Alex McLaughlin explores the role scientists play in the fight for climate justice.

There is increasing concern in parts of the research community about the prospect of a climate catastrophe. Reports by the Intergovernmental Panel on Climate Change (IPCC), taking their lead from the content of international agreements, have focused disproportionately on the implications of warming by 1.5C and 2C, temperatures that many now believe are out of reach. As a result, knowledge about how bad climate change could get has fallen behind. But perhaps more striking is the claim that it is possible that temperature increases considerably below worst-case scenarios could lead to catastrophe: climate change could trigger other serious risks, including international conflict and disease outbreak, and will interact with such a range of interconnected vulnerabilities that it could lead to the collapse of social systems.[1] These research findings have coincided with an escalation in climate effects. Among much else, 2023 has seen record heatwaves in Europe and the USA and the continuation of drought in the Horn of Africa.[2,3] In August, global sea temperatures reached a record level.[4]

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In a climate emergency, political action could hardly be more urgent. Unfortunately, it remains seriously deficient. According to Climate Action Tracker, 'current policies presently in place around the world are projected to result in about 2.7C of warming'.[5] This gap between what is necessary and what is being done cannot be explained by a lack of knowledge, or the availability or price of renewable energy. Scientific knowledge around climate change has advanced rapidly over the past 30 years, but its core features have been well understood since before the first major IPCC report in 1990.[6] In current markets, renewables are at least as cheap as fossil fuels, and so the action gap is not a result of the brute material costs of mitigation.[7] Instead, the problems relate to political economy: to the way domestic and international institutions are structured, empowering some agents over others and preventing coordination and the fair distribution of costs.

That climate change is causing and will continue to cause serious harm would, on its own, be the source of considerable distress; that it is avoidable, the result of contingent political arrangements, will induce feelings of anger and indignation. Indeed, concerns about the grave impacts of climate change, and frustration with those who have obstructed the action that can and should be taken to prevent them, has led many to consider the kind of action they might take in protest at climate injustice.

"Whether they wanted to or not, scientists have been forced to confront questions about political activism."

SCIENTISTS AND CLIMATE DISOBEDIENCE

Whether they wanted to or not, scientists have been forced to confront questions about political activism. Climate change has thrown them into the mainstream and, as a result, they have been subject to slurs, derision and accusations of conspiracy. Overall, the scientific community has proven admirably reflective in confronting questions about how to engage with politics. But are scientists doing enough? In a prominent intervention, a group of environmental and social scientists has called for something of an escalation in the way that researchers should seek to influence climate politics. Specifically, in one recent article it is argued that scientists should engage in peaceful civil disobedience as a way of pressing the need for greater climate action.[8]

Unsurprisingly, what it means to engage in civil disobedience is a matter of debate.[9] The term generally has a positive connotation: civil disobedience has a celebrated history, and situating current protest within its tradition bestows a kind of legitimacy on political action. There is therefore a temptation to construe civil disobedience broadly, to vindicate worthy forms of protest, even when they would strain against ordinary linguistic usage of civility.

It is important, then, to be clear about what we mean when we refer to political action as civil disobedience. The article's authors invoke a standard liberal notion, according to which civil disobedience involves public and non-violent breaches of the law, aiming to communicate opposition to a particular practice or policy. They develop numerous points. A central claim in the argument is that civil disobedience is justified in the context of a climate emergency and is a promising way of affecting change. They also suggest that civil disobedience in this context needs scientists, whose position of trust affords them a respected standpoint from which to demand social change. Scientists can 'cut through the myriad complexities and confusion surrounding the climate crisis'.[8] Moreover, if scientists do not act stridently in protest against climate change, they risk damaging their credibility, which hinges on being seen to act for the public good.

This provocative intervention will, no doubt, meet with resistance from traditionalists who would like to see the boundary between science and politics repaired rather than eroded further. But these concerns are misplaced. The crude picture of scientists as neutral arbiters, providing value-free information for policy-makers to deliberate over, has been discredited. In any case, these inherited norms about disciplinary boundaries might be strained in current circumstances, failing to account for the stakes at play; a science untainted by politics, were that possible, would be of little consolation in the face of climate catastrophe. Although it might initially appear less controversial, the suggestion that scientists have something distinctively important to add to civilly disobedient protest warrants more attention.

EPISTEMIC PRIVILEGE AND CLIMATE INJUSTICE

The argument the authors make is that the epistemic authority of scientists – in other words, their status as experts in specific settings – positions them particularly well to engage in civil disobedience. Their authority gives them the ability to communicate certain facts about climate change that are not available to the population at large, and their status as 'producers of knowledge' underwrites their action with an urgency that has the potential to move others. The thought is that scientists engaging in civil disobedience will not only help people understand climate change but also to better appreciate how grave the situation is.[8]


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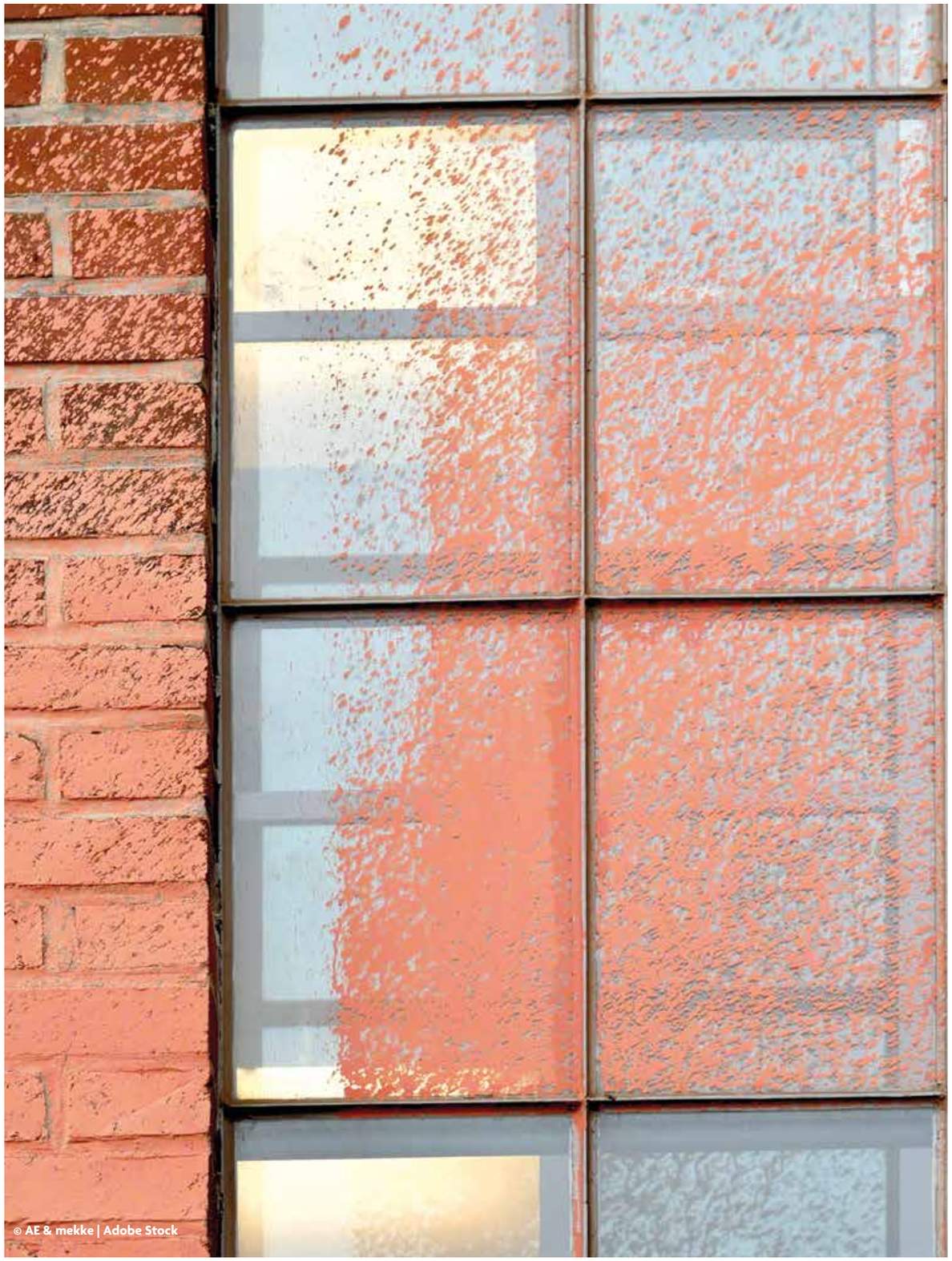
There is clearly something to this argument. The more technical aspects of climate change are not widely appreciated, and climate scientists have generally proven to be apt communicators, particularly in the media, where they have often had to share a platform with outright denial. Civil disobedience, insofar as it confronts public stakeholders with information about climate change, could provide another communicative outlet for scientists to press their point. It is also plausible that mass arrests of scientists would convey something important about the desperate nature of our current circumstances.

There are important differences, though, between the epistemic authority possessed by scientists and that which is taken to be especially important in political resistance. Scientists are experts within certain empirical domains. Put crudely, climate scientists aim to illuminate facts about the physical structure of climate change, the process that drives it, and the likelihood of certain climatic events occurring. In turn, social scientists aim to reveal how these physical facts about climate change lead to material costs as they are channelled through social sources of vulnerability.

The epistemic authority emphasised in the literature on political resistance, in contrast, is possessed by those who experience the effects of injustice. Those experiencing injustice can know things others cannot.[10] Black citizens will know things about racism in the USA and UK, for example, that white citizens do not, and this should count when they act together in opposition to racist practices. At stake here is not just the instrumental value of testimony in revealing more clearly the shape of injustice. Solidarity, too, is often thought to require deference to those epistemically privileged with respect to injustice; we should act with those experiencing injustice, accepting the terms with which they characterise the situation that must be confronted.[11] Being able to describe facts about climate change as a global and intergenerational phenomenon, though no doubt important, is not the same as being able to communicate climate change as an injustice, and it is the latter that is central to civil disobedience.

Of course, the argument need not be understood as claiming that scientists are the only stakeholders who could make an important contribution to climate disobedience. Surely this is not the idea. It could be agreed that the perspectives of those particularly affected by climate change are also vital for climate protest and so should be empowered by a climate movement. The point is that scientists could add something important through their civil disobedience, and that they should take up this opportunity.



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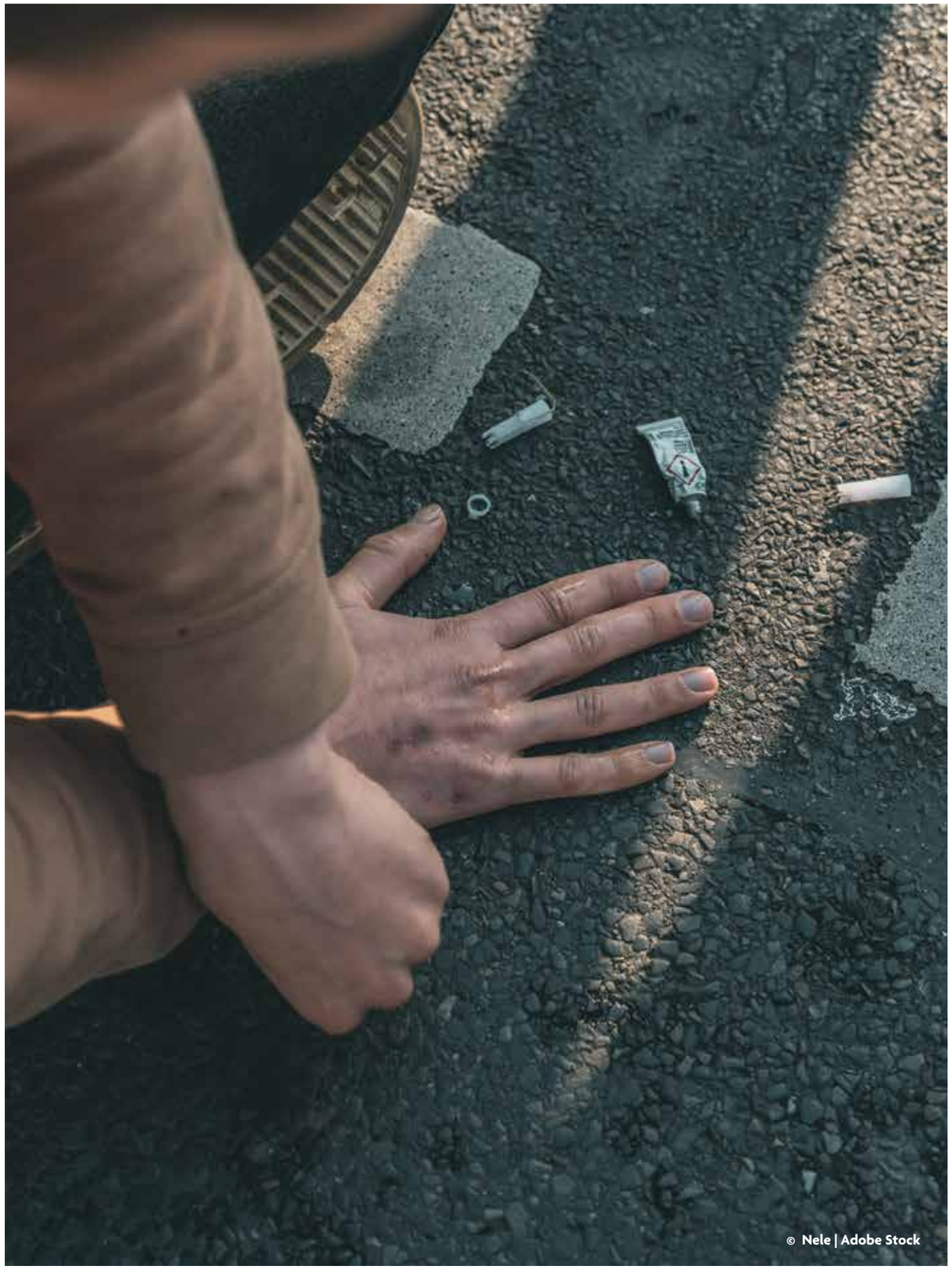
Unfortunately, climate protest has not always been inclusive of those on the front line. The Wretched of the Earth, a collective of Indigenous groups struggling for climate justice, have been vocal critics of a tendency in the mainstream climate movement to marginalise and often exclude Indigenous voices. In one notable instance they accuse the organisers of the People's March for Climate Justice and Jobs, a mass protest held in London in 2016, of asking Indigenous activists to sanitise their message and of replacing them at the front of the march with a group of people dressed as animals.[12] Criticisms of a similar nature have been directed at Extinction Rebellion, an organisation steadfastly committed to civil disobedience. Extinction Rebellion encourages mass arrest and has often attempted to foster a non-adversarial relationship with the police, a tactic and orientation that excludes minorities vulnerable to police brutality and subject to racial profiling.

That the climate movement often fails to be inclusive is clearly a problem, but this is not a fault of scientists in particular. Nothing said in the article under discussion is directly contradictory with the aspiration of a truly intersectional climate movement.[8] Perhaps we should conclude that civil disobedience in protest of climate change should aim to be both more inclusive and to afford a greater role for scientists.

TELL THE TRUTH

Climate science does not tell us what climate justice is, and a worry remains that a more central role for scientists in civil disobedience will obscure this important fact. Scientists, like other researchers, can overreach with their claims. The same epistemic authority that is supposed to motivate the idea that scientists can make a valuable contribution to climate disobedience has been misused in the past, when claims to neutrality and objectivity have legitimised practices of control and exploitation. These dangers might be less pronounced in this case. After all, when it comes to climate change, those in power have often situated themselves as being in opposition to a scientific mainstream rather than acting with its blessing. Still, the risk of epistemic overreach is real.

A dominant scientific narrative about climate change can leave little room for alternative ways of framing the problem, and this is true in protest as it is elsewhere. Indigenous peoples threatened by climate change do not tend to describe their predicament in metric terms with reference to average rainfall or sea-level rise; they are more likely to emphasise ongoing relations of colonial domination that disrupt traditional practices embedded in the natural world.[13] In an open letter to Extinction Rebellion, the Wretched of the Earth allude to these concerns:



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'You may not realize that when you focus on the science you often look past the fire and us – you look past our histories of struggle, dignity, victory and resilience. And you look past the vast intergenerational knowledge of unity with nature that our peoples have. Indigenous communities remind us that we are not separate from nature, and that protecting the environment is also protecting ourselves.'[14]

It should be acknowledged that the article's authors might seek to address only a specific political context. While no doubt regrettable, Indigenous protest has not been prominent in this setting, and climate resistance does tend to involve civil disobedience. It might be argued that civil disobedience must persuade those who will be unfamiliar with, and likely unresponsive to, narratives that seek to reimagine our relationship with nature but who might be more impressed by the relevance of hard facts about the consequences of climate change.

The problem with this suggestion is that it relies on a naive account of political change. From the scientific perspective, at the heart of the climate crisis is a lack of comprehension: how could action on climate change not follow a proper appreciation of its enormity? This is why it is crucial to cut through the complexity and lay out the relevant facts. On this view, protest has as much an educational as emancipatory function; if only politicians would 'tell the truth', to borrow a popular slogan, then the foundations for social change would be secured.

As many as observed, 'tell the truth' is not a political programme, and the problems of political economy that obstruct action on climate change will not yield merely to better explanations of cause and effect. The role of civil disobedience, along with many other forms of protest, must be to articulate broader social discontent, to reveal how climate injustice is connected to other forms of disadvantage. Such a movement will be concerned primarily with the social relations that produce climate injustice, and view misinformation as one dimension of the apparatus of power rather than as the one true obstacle to salvation. Scientists can surely contribute much to this project – indeed, they have already done much for climate justice. And perhaps they will contribute through their civil disobedience. But at the same time, we should be clear about whose voices are most needed in the struggle for climate justice. ES

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CASE STUDY

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The politics of environmental justice in Saint Lucia

Lavoutte Links Concerned Citizens Group delves into the world of tourism and residents' access rights.

Although tourist resorts constitute a small percentage of Saint Lucia's total land surface, they affect a significant proportion of the island's coastal land. With large areas of private and public beachfront property acquired for tourism in Saint Lucia in recent years, substantial areas of the coast have effectively become off limits to residents to access for leisure or as part of their livelihood.[1] One hotly debated example of this trend is the 375-acre newly developed Cabot Saint Lucia Golf Resort (owned by the Canadian company Cabot), which held a soft opening in June 2023. Situated on the north-east coast, the Cabot resort stretches from Cas en Bas to Pointe Hardy and has threatened public access to local beaches.

CASE STUDY

© Overview of the Cabot course © Finola Jennings Clark

ACCESS RIGHTS FOR ALL?

At the time of the last general election in July 2021, the then opposition stated that if elected they would 'preserve public access to our beaches and to the Queen's Chain' – the strip of land surrounding the island, reaching around 55 m inland from the high-water mark.[2,3,4] They won the election, and to their credit moved to reclaim some coastal lands that were at the centre of a public controversy and ongoing petition against the Cabot resort development.[4] This comprises the remnants of a Kalinago archaeological site that, although largely excavated or lost to coastal erosion, remains important to many Saint Lucians, including the growing number who claim Indigenous Kalinago (also known as Caribs) in their ancestry.

Access to beaches along the full length of the coastal Queen's Chain is already enshrined in law but users are often alienated by restrictions imposed by tourist resorts: this includes traditional fishers whose rights are protected in law, hikers (both residents and tourists), horse-riding tour operators, photographers and nature lovers. But when concerned citizens sought to obtain clarification from officials on exactly what 'taking back' the Queen's Chain meant for the Cabot development's coastal areas, they were met with silence – which remains to this day. No one can say for certain what access rights residents not associated with the resort will have, as the golf course extends to the cliff edge with no sign of an open-access path for others to use freely.

In February 2017 a local newspaper article was published, stating that:

'Access to justice provides the foundation of the "access rights" as it facilitates the public's ability to enforce their right to participate, to be informed, and to hold regulators and polluters accountable for environmental harm.'[5]

The article followed a meeting of 15 member states of the United Nations Economic Commission for Latin America and the Caribbean – ahead of the sixth negotiations on the Regional Agreement on Principle 10 in Latin America and the Caribbean – but where only two Caribbean countries were represented: Jamaica and Grenada. These negotiations led to the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean in 2018.[6] This became known as the Escazú Agreement, which enshrines in law the rights of the public to access information and to advocate safely for environmental rights and justice. Saint Lucia ratified the agreement on 2 December 2020 and published a roadmap in April 2023 to meet its obligations, which notes that:[7]

- While there is a constitutional right to freedom of expression (which includes the right to receive information), there is no specific law on access to information; and
- There are no specified procedures on how the right of access to information should be exercised. (Article 5 of the Agreement is largely not met.)

DEVELOPMENT CONTROL REGULATIONS

Development and planning applications come under the purview of the Ministry of Planning and its Development Control Authority (DCA) agency. The DCA is a quasi-governmental organisation run by a government-appointed board and has the legal authority to review applications for all levels of development – from individual home extensions to large-scale resorts.

While a 2012 press release on the previous government's appointment of the new DCA board stated the DCA's mission was 'to foster Sustainable Improvement in the quality of life of all Saint Lucians, through effective integrated planning, coordination, implementation and monitoring of physical, technological, economic, environmental and social development activities', there was no amendment to the legal instruments that mandates citizen engagement and social impacts in decision-making.[8]

In the years since the new DCA board was appointed, these amendments have still not been made, even when developers are required to undertake an environmental and social impact assessment (ESIA) that legally requires the assessment of social impacts.[9] That legislation also states that the developer chooses the ESIA team and the DCA board vets it, and that the developer pays for the ESIA, while the DCA appoints an independent consultant (known as the Check Consultant) to review the work.[9] However, the Check Consultant's reports are not routinely shared, even with those the DCA consults with, such as the Saint Lucia National Trust, Saint Lucia Archaeological and Historical Association, Crown Lands, or individuals and groups who have expressed concern.

To better understand this disconnect, Lavoutte Links Concerned Citizens posed the following questions to the DCA:

1. How can concerned parties request access to information held by the DCA about a proposed development?
2. Are there circumstances where information is considered confidential and not for public access? If yes, what would those circumstances be? What can a citizen easily access by making a request to the DCA, and what can they not?
3. Can the DCA offer any insights into citizens' access to information that relates to environmental issues and development?
4. Are there official DCA guidelines for anyone wishing to access information for a proposed development? What is, or is not, readily available to the public?

The DCA's response pointed to the same legislation, which states that certain registers are required to be kept and that anyone can apply for access to view them with specific queries, for a fee. Although the fee is nominal per query, there is a significant level of functional illiteracy in Saint Lucia, particularly when it comes to legal processes and technical documents written in English. This is compounded by the fact that there is little to no outreach or public service information provided by government agencies, making the information very challenging to access for the average citizen.

"Under current legislation, Saint Lucians are unlikely to be able to confidently procure legal services to take on an anti-development case."


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ACCESS TO LEGAL AID

It is also important to note that under current legislation, Saint Lucians are unlikely to be able to confidently procure legal services to take on an anti-development case, even if they were able to access the necessary information from the DCA. This is due to inevitable conflicts of interest: any lawyer in Saint Lucia skilled enough to fight an environmentally or socially harmful development would likely already be representing, or wish to represent, one of the developers, as this would be a major source of their revenue.

The inability of many in Saint Lucia to pay for legal help to access these services was frequently brought up in Lavoutte Links Concerned Citizens meetings, and this often involved brainstorming who knew which lawyer, and whether they would be able (or willing) to work pro bono. A Legal Aid Act has existed since 2008, offering financial aid to those who are unable to pay legal fees. The Legal Aid Authority board – a quasi-governmental body appointed by the government – has existed since 2011, when the current director joined, with a second attorney joining in 2021.[10]

The process for receiving legal aid involves meeting with the director, who determines financial need and whether the case has enough merit to be brought to the board that will then decide whether to proceed. The caseload is heavy; considering that in August 2022 approximately 61 per cent of the inmates at Saint Lucia's only prison, Bordelais Correctional Facility, were still on remand and awaiting trial (with many murder cases taking over a decade to be heard), determining the outcome of legal aid for an environmental matter will take some time.[11]

Although to date there has never been a case involving environmental justice in Saint Lucia, the Legal Aid office would consider it just as it would any other case brought before the board. But a catch-22 exists: if the board, as the decision-maker, is appointed by the government, would it ever approve a case against its own government?

SPEAKING UP ABOUT INJUSTICE

In Saint Lucia there is a palpable feeling of distrust in systems that, on paper, work for and protect residents. Saint Lucians all earn their living from a very politically influenced small pool of opportunities, so it is no surprise that many keep quiet. There is a perception that this structure will frustrate justice, and while there are people within government agencies who recognise the need for transparency and openness, as a country, the overwhelming impression is that those with the power and influence are not interested in an empowered populace.

A recent informal survey asked whether residents felt they had the power to take legal action against a development. It yielded the following top three responses:

- I should be able to, but lawyers cost too much;
- I should be able to, but I will never win because government does what they want; and

- I should be able to, but I will never win because the lawyers all earn their salaries from people with big money.[12]

Only one of the 14 respondents felt that they could speak openly and that decision-makers would listen. Four respondents felt that they could lose their job or be harassed if they spoke up and that it was dangerous to do so in Saint Lucia.

It is difficult to persuade many in Saint Lucia to take a stand against these large, apparently wealth-giving resort-based real estate projects: in 2022, unemployment officially stood at 17 per cent overall and at 27 per cent for young people, although the actual figure may be higher.[13] The cost of living continues to skyrocket. Tourism has been by far the largest employer and is a significant source of income for the country.[14] While things may have improved economically since the Covid-19 pandemic, unemployment is still very high; people need an income, and there is no social security or unemployment benefit system to fall back on.

Saint Lucia is listed as the seventh most dependent country on tourism, measured as a percentage of GDP. Yet only one large development, Bay Gardens Beach Resort, is locally owned and employs residents across all levels of management.[15] The question of what proportion of the room rates (used to calculate GDP) remains on the island has not been clarified. The better-paying jobs are largely filled by non-residents, while most available jobs pay very low wages on seasonal short-term contracts that offer no job security. The average tourism-related salary is around £530 per month, but most will earn less than the suggested minimum wage – at the lower end a mere £1.25 per hour.[16] In 2019, the proportion of tourism-related jobs was estimated at 78 per cent, putting Saint Lucia in third place among the world's most tourism-reliant countries (see **Figure 1**).[17]

So when 300-odd scruffy, dry coastal acres here and there are transformed into so-called world-class resorts that will offer the only jobs available to Saint Lucians, where does fighting for environmental justice fit in to the need to make a living – especially if it is at a wage of around £1 an hour? There are very few who can afford to see the bigger picture right now and fewer still who, it seems, have figured out just how to make this situation work to their advantage.

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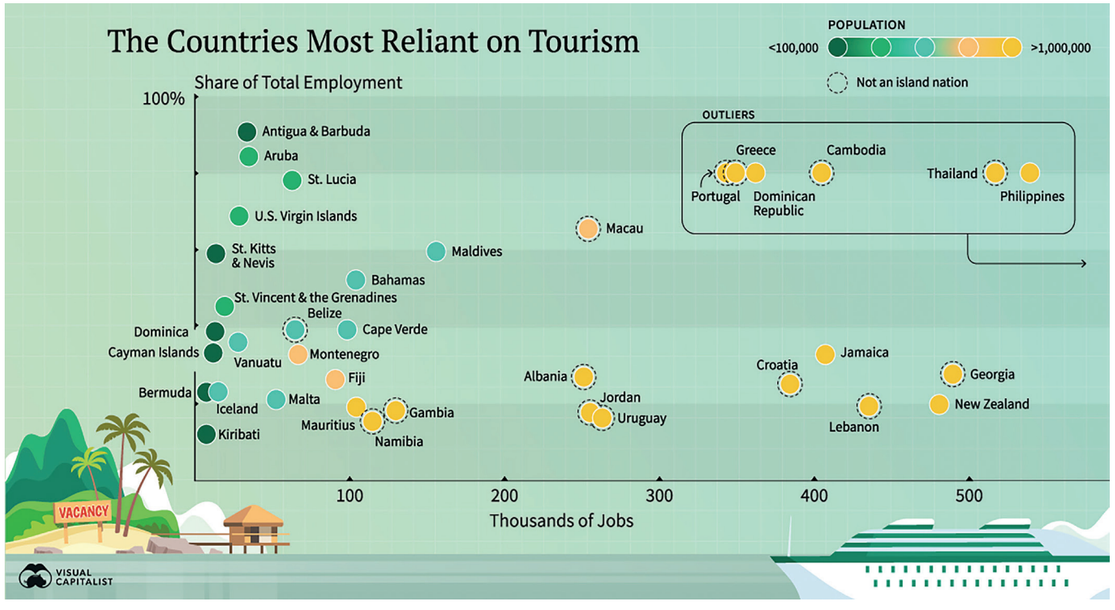
Lavoutte Links Concerned Citizens Group was formed in 2019 to advocate for the equitable rights of citizens and residents of Saint Lucia to traditional and contemporary access along the coastal areas and existing roads within the proposed Cabot Saint Lucia Golf Resort. The group now advocates for similar causes throughout Saint Lucia.



▲ **Figure 1: The countries most reliant on tourism. (Source: Visual Capitalist[19])**

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ANALYSIS

Environmental justice and whistleblowing

Sybille Raphael examines the link between the two and the legal and policy changes that would strengthen the protection of people and the environment.

What does whistleblowing have to do with environmental justice? Rather a lot! The ability to speak up and report wrongdoing at work is essential to safeguarding our environment and ensuring justice. The public interest is at the core of both whistleblowing and environmental justice.


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The recent report of the United Nations (UN) Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression makes the link clear:

'Transparency, civic space and independent media – which thrive in contexts where freedom of expression is upheld – are powerful drivers in ensuring that much-needed public funds or natural resources for sustainable development are not destroyed or diverted for private use.'[1]

WHY IS WHISTLEBLOWING CRUCIAL?

Whether environmental justice is about implementation and enforcement of environmental laws, regulations and policies or more generally about protecting the natural environment and the people and wildlife that depend upon it, is impossible to achieve without effective ways to identify and highlight harmful behaviour and actions. Whistleblowing is the easiest and quickest way to detect wrongdoing. Workers are the eyes and ears of an organisation. They are likely to be the first to spot when climate and sustainability credentials are being misrepresented, climate funds are being spent incorrectly, laws are being breached or environmental harm is occurring. As the UN Special Rapporteur explained, access to information that is at the heart of freedom of expression is a vital tool to expose and counter activities such as corruption, illegal deforestation, illicit mining and trafficking of rare species.

But whistleblowing is not just about the ability to report and address wrongdoing. It is a fundamental prerequisite to the rule of law and democracy: just like a government that people cannot freely oppose is going to be a poor guarantor of its citizens' legal rights, so a company where workers cannot freely raise concerns is going to be a poor guarantor of any right or regulation that might erode its profits in the short term. Whistleblowing is also about empowering and giving a voice to individuals, communities and civil society. As the UN Special Rapporteur says:

'If development is to be meaningful, then the voices of those most disadvantaged in society must be heard and heeded, and civil society and the media must have the freedom and space to use information and voice to hold the powerful to account.'[1]

Whistleblowing is about individuals taking action. Like Joe the truck driver, who spotted and exposed one million tonnes of waste being secretly and illegally dumped near a drinking water supply in Northern Ireland, with dire environmental consequences for the local community.[2] It is about Desiree, who worked for an asset manager and realised her employer was greenwashing so-called sustainable investments.[3] It is about Jóhannes, who discovered large-scale corruption and theft in Namibia by his employer, an Icelandic fishing company.[4]

WHAT IS THE RISK? WHAT ARE THE BENEFITS?

Whistleblowing remains a risky business for too many. Desiree was fired. Jóhannes was blacklisted in his industry, defamed and even poisoned. No one likes having problems brought to them, and shooting the messenger often feels easier than dealing with the message. In 2020, 41 per cent of those contacting the UK's whistleblowing charity Protect's free and confidential legal Advice Line felt ignored when they raised their concerns, and 20 per cent were dismissed as a result.[5] But whistleblowing is good for business. Organisations need to be able to detect and address risks before they spiral out of control. They also need systems that demonstrate the transparency required by investors and regulators. A healthy speaking-up culture is one of the best guarantors of a company's compliance with its regulatory and ethical duties.

Encouragingly, the willingness to report environmental wrongdoing seems to be there. We know that the existential threat of the climate crisis is at the forefront of public policy and individual anxiety and that workers are increasingly adamant they expect their employers to play their part.[6] Over 93 per cent of employees said that acting on climate change at work was important to their personal sense of motivation and wellbeing.[7] Eight out of 10 employees are ready and willing to take action on climate change in their jobs.[8] A further study showed that 64 per cent of those aged 19–22 considered it important for employers to act on environmental issues.[9]

And yet, there is generally very little environmental whistleblowing occurring in the UK. In 2022, only six of the 2,500 calls received by Protect's Advice Line related to environmental concerns.[10] There seems to be a similar theme across the UK's environmental regulators: between April 2021 and March 2022, the Environment Agency, the regulator for England, received only eight qualifying whistleblowing disclosures, Natural Resources Wales received just four, and the Scottish Environment Protection Agency received 26 disclosures.[11,12,13]

There could be several reasons for this: a lack of knowledge among workers about rights and concern-raising processes; fear of reprisal for raising a concern; a sense that it is not their job; or not viewing whistleblowing as a tool for climate action. Relatively few workers know how to raise concerns. In 2021, only 31 per cent of workers reported that they knew how to raise a whistleblowing concern at work, while 46 per cent were unsure whether their employer had a whistleblowing policy.[14]

HOW CAN WE IMPROVE THE SYSTEM?

Protect is working on a toolkit on how to blow the whistle on environmental issues, which will be launched on 5 October 2023.[15] But much more is required. Employers and regulators encouraging and protecting whistleblowing in general is key. The UK Government was aware of the importance of whistleblowing for stopping harm, and in 1993 the UK became the second country in the world to adopt a law protecting whistleblowers. However, after 25 years, the law is now outdated and the Government has announced an independent review of the whistleblowing framework.[16]

Reform should start with adapting the law to apply to the 21st century's gig economy, where the differences and legal definitions between being self-employed and being a worker are increasingly less clear. The use of booking platforms for taxi and takeaway delivery services, for instance, has blurred the line, with workers able to decide when they want to work and whether


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they want to combine several jobs; and yet, they are still expected to follow precise requirements, wear a uniform and be closely monitored when at work. This is crucial because only workers currently come within the scope of the UK's whistleblowing protection. Self-employed contractors, volunteers or trustees, for instance, are not covered.

The UK would be wise to look to the EU for inspiration. The EU Whistleblowing Directive, which has now been implemented by 10 Member States, relates to all 'work-related activities', and expressly protects job applicants, the self-employed, shareholders, non-executive directors, volunteers (including trustees) and trainees – unlike our own UK whistleblowing law that is much more limited in scope.[17]

But more importantly, because of the power imbalance between an organisation and individuals, it is often extremely difficult for whistleblowers to obtain any kind of redress for retaliation suffered, let alone ensure the concern is addressed. This may be because UK law does not impose any minimum whistleblowing standards on employers. It is only concerned about 'after the event' retaliation and simply permits workers to bring claims to an employment tribunal. There is no positive requirement for organisations in the UK to have a set whistleblowing process (outside a few regulated sectors, such as financial services). In the EU, the directive requires employers with 50 or more workers to establish internal reporting channels and imposes strict deadlines to acknowledge and feed back on the concerns raised. Impartiality, confidentiality and clear details on how to report externally to a relevant regulator are all required. These are changes we should introduce in the UK.

Finally, we need to address the difficulties in winning a claim at an employment tribunal; whistleblowing claims are notoriously difficult for workers to win. The law is complicated, and without formal legal advice and representation, whistleblowers face an uphill struggle. The official tribunal statistics for 2020–21 show that only 3 per cent of whistleblowing claims issued were successful at hearing (and 33 per cent were resolved through conciliation by the Advisory, Conciliation and Arbitration Service).[18] This is particularly problematic, as legal aid is not available for such claims – which are complex and therefore costly when lawyers are involved. The directive requires EU Member States to provide sources of free and independent legal advice and assistance to whistleblowers, which the UK does not – a particular injustice for those who raise concerns that are in the public interest.

Protect's proposal is to simplify the UK's whistleblowing regime and harmonise it with discrimination rules under the Equality Act 2010, which are much better understood by both employers and workers.[19] There should not be different legal tests depending on whether there is a claim of whistleblowing dismissal or detriment, for instance.

Whistleblowing is good for workers, who should feel psychologically safe at work; it is good for businesses, for detecting and deterring wrongdoing and to foster productivity and loyalty; and it is good for society overall. The ability to raise concerns when things go wrong should not be controversial: freedom of speech is a cornerstone of democracy, and whistleblowers act in the public interest. In the words of the UN Special Rapporteur, whistleblowing:

'Allows Governments to be better informed and more responsive to the needs of their people. It enables civil society, the media and citizens to hold Governments and corporate power to account, making democracy meaningful. It also generates economic dividends'.[1]

ANALYSIS

Whistleblowing is especially important when it comes to environmental issues. The ability to speak up and report environmental concerns is crucial to our capacity to safeguard our limited resources, allocate them in the most just and effective way possible, change the status quo and prevent wrongdoing. ES

Sybille Raphael is Protect's legal director. She is a leading specialist whistleblowing lawyer working alongside employers, regulators and whistleblowers. She has a key role in Protect's legal reform campaign to improve the UK whistleblowing legal framework. She also has wide-ranging expertise in helping organisations improve their whistleblowing arrangements and 'speak up' culture.

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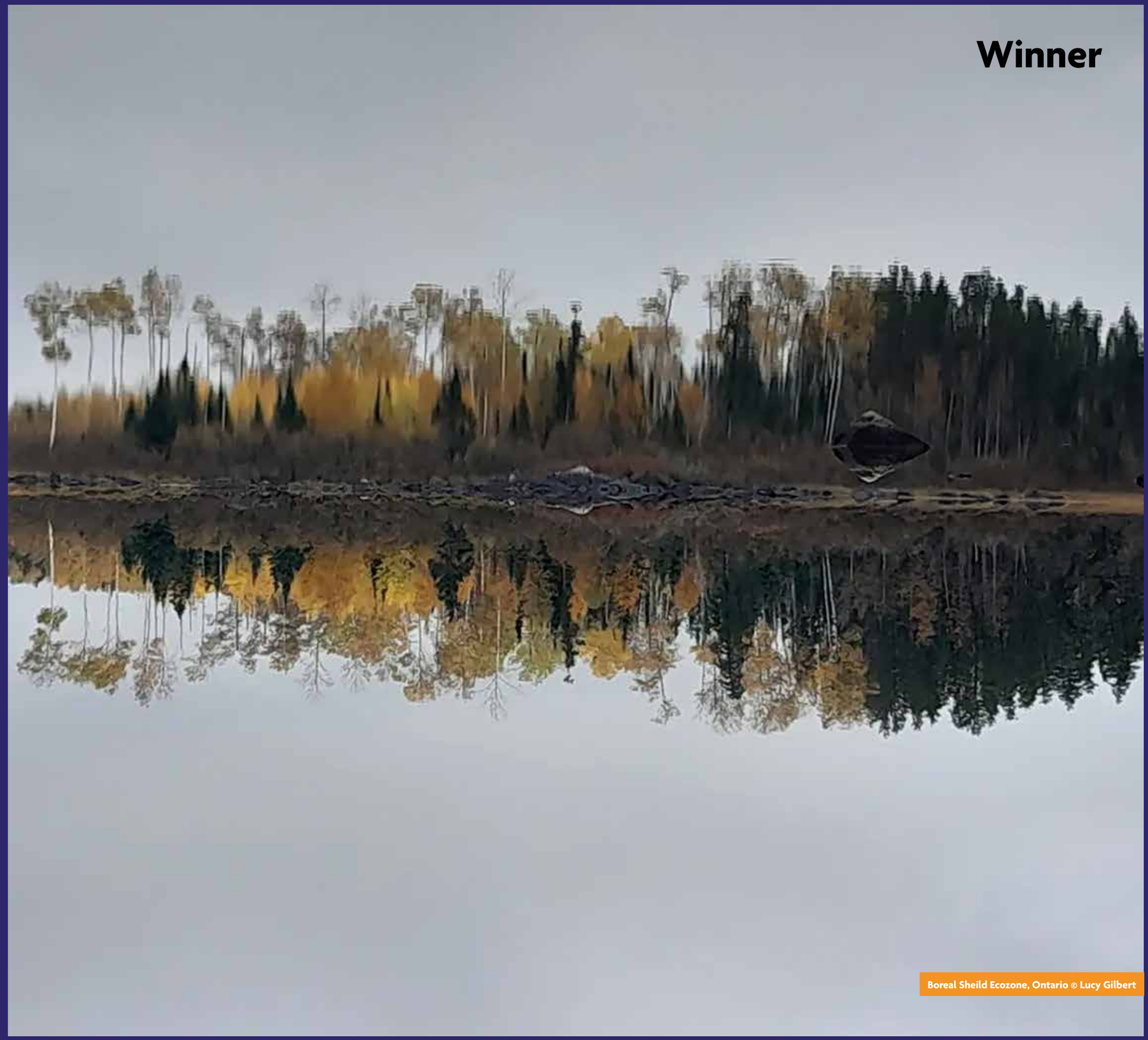
IES photography competition

This year's theme for the IES photography competition was 'Patterns', and we were not anticipating the striking contrasts in interpretation of this concept. We were particularly impressed by the attention given to everyday, often overlooked patterns in many of the photos submitted: rippled sand on the beach, dappled clouds over a sunset, the intricate feathered layers on a close-up shot of a butterfly's wing, and the geometric design of a dandelion's clock.

While many of the images were surprising and well-composed, the winning photograph struck our judges with its sense of tranquillity and stillness, its earthy colours, and its depiction of a quite unexpected pattern. This is reflected in winner Lucy Gilbert's description of her photograph:

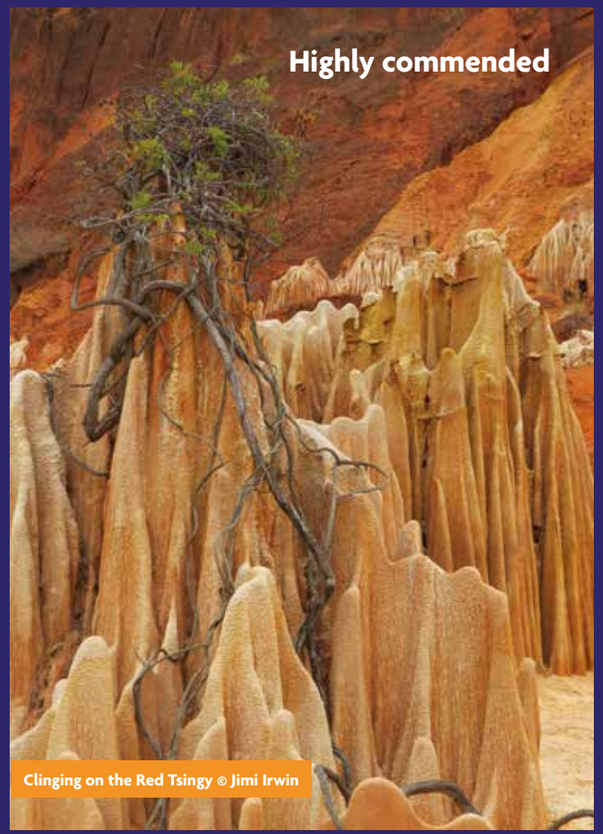
"The photo was taken in September 2022, across an unnamed lake in the Boreal Shield Ecozone, Ontario. I was over there from Alberta, for a week-long soil and terrain survey for soil classification and mapping. On morning, as I and another soil surveyor were flying out to a drop-off point, we hit a fog bank, and the pilot landed us on a small island as we waited for it to clear. At first, we thought it was possible that no one had set foot on the island before us, but after exploring a little (and taking photos) we observed some First Nation artefacts, including net sinks and carvings in some stones."

▶ **BOREAL SHIELD ECOZONE, ONTARIO**



Winner

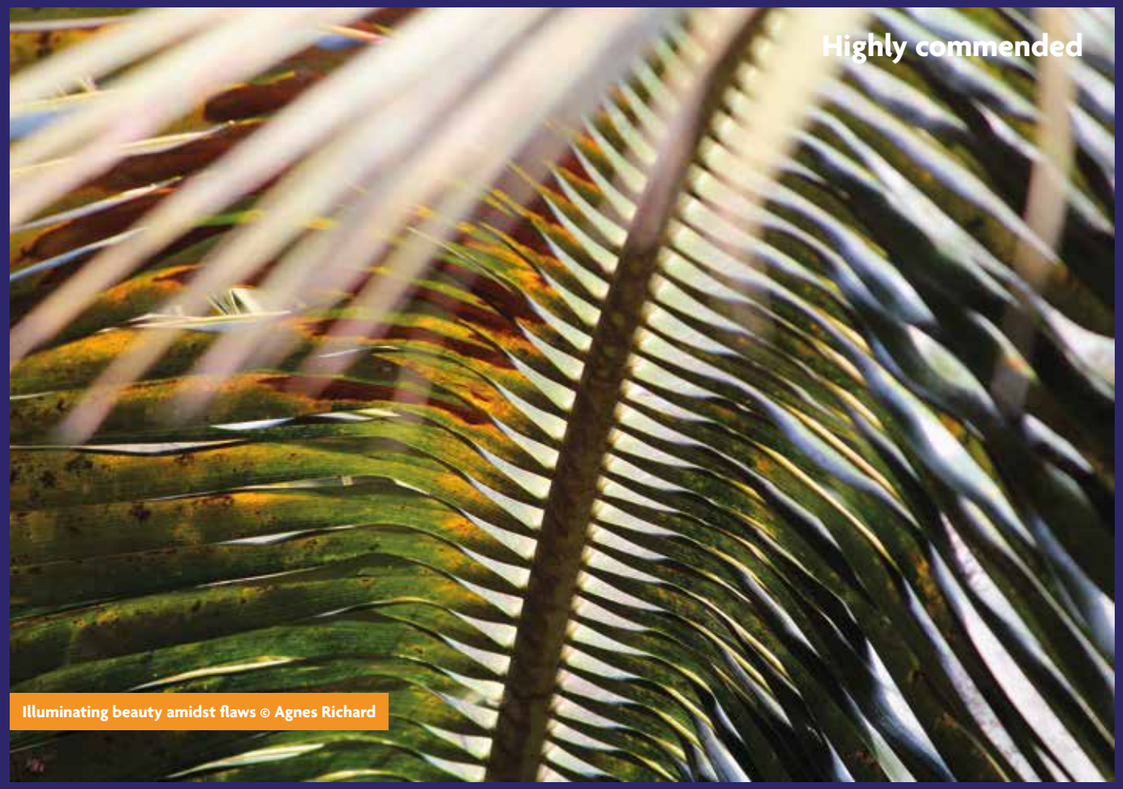
Boreal Sheild Ecozone, Ontario © Lucy Gilbert



Clinging on the Red Tsingy © Jimi Irwin

Woven Wing © Rhys Leighton

A stern warning © Douglas Tilbury



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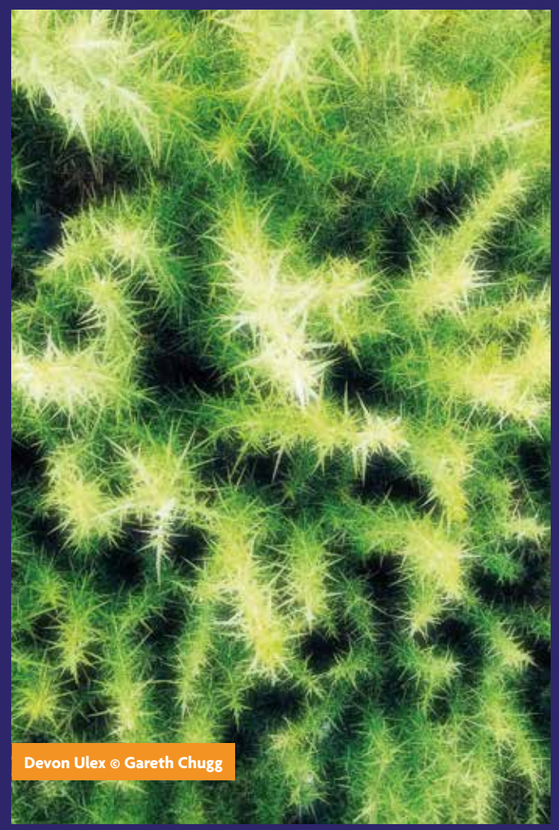

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Parasol mushroom in field © Leela O'Dea

New members and re-grades

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Xiaohui Chen – Associate Professor in Geotechnical Engineering
Robert Epsom – EMEA Head of ESG

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Philippa Bennett – Principal Engineer/Regional Manager
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Matthew Carr – Geo-environmental Technician
Daniel Carrol – Senior EIA Coordinator
Cho Yin Chan – Assistant Professor
Gina Cherry – Environmental & Sustainability Consultant
Wing Kar Cheung – Environmental Advisor
Thomas Clarke – Senior Geo-environmental Consultant
Samuel Connolley – Environmental & Sustainability Consultant
Richard Cook – Senior Geo-environmental Consultant
Aidan Crowl – Senior Ecologist
Ruth Crumpton – Environmental Consultant Level 2
Robert Davies – Geo-environmental Engineer
Stephanie Dodd – Geo-environmental Engineer
Robin Domeney – Technical Director
Sonya Dunbar – Strategic Planner
Amy-Louise Flynn – Environmental Coordinator
Julia Griffin – Senior Geo-environmental Consultant
Curtis Gubb – Senior Sustainability Consultant
Brittany Heap – Evidence Advisor (Data & Statistics)
Russell Hodgson – Environmental Consultant
Jem Iskender – Marine Consultant
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Olivia Jackson – Remediation Manager
Laura Jervis – Associate Director
Josh Jones – Senior Air Quality Consultant
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Rengasamy Kasinathan – President
Despoina Korai – Associate Geo-environmental Consultant
Klara Kovacic – Environmental Consultant – Associate Director
Tung Audrey Kwok – Principal Consultant – Environmental Management
Jane Lees – Environmental Manager
Georgina Lodge – Senior Geo-environmental Engineer
Jemma-Anne Lonsdale – Principal Consultant
Charles Malcolm – Principal Water Resource Consultant
Nicholas Marks – Pollution Control Officer
Matthew Marshall – Consultant Environmental Sciences
Rebecca Martin – Environmental Consultant
Cristobal Martinez Garcia – Technical Director Environment & Social
Shauna McLoughlin – Principal Geo-environmental Consultant
James Mendham – Environmental Consultant
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Brian O'Shaughnessy Environmental Scientist
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Rowan Buchanan – Senior Sustainability Advisor
Aimee Buck – Assistant Scientist
Megan Buckley – Graduate Project Engineer
Lucy Collins – Environmental Analyst
Paul Cronje – Senior Aquatic Ecologist
Marushka da Costa – Graduate Environmental Consultant
Jaime De La Torre Moreno – Assistant Environmental Consultant
Holly Diggins – Environmental Consultant
Jonny Dodkins – Graduate Air Quality Consultant
Sarah Doyle – Graduate Consultant
Vincent Egunjobi – Environmentalist
Aimee Ford – Principal Sustainability Advisor
Simone Hinzman – Sustainability Consultant
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Monika Jaskulska – Assistant Environmental Consultant
Kate Jefferd – Environmental Consultant
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What does the future hold for climate refugees?

Steve Trent looks at the humanitarian crisis that climate change is causing and its repercussions.

CLIMATE CHANGE IS A HUMANITARIAN CRISIS

Climate change is here in earnest. Globally, some climate models are increasingly outpaced by reality through extreme-weather events like last year's flooding in Pakistan, current fires in Canada and across Europe, and sooner-than-expected progress towards reaching tipping points in the Earth's system.[1,2] This is the issue of our time, jeopardising the most basic human rights of millions across the globe. New inequalities are created and existing ones are exacerbated.[3]

The world's richest countries have profited the most from carbon-based economic growth and emissions, yet the poorest nations experience the greatest impacts. Around 69 per cent of deaths reported due to climate-related disasters took place in the world's least developed countries in the last 50 years; this is despite these countries contributing less than 4 per cent of the world's total greenhouse gas emissions in 2019.[4] This injustice entrenches systemic inequality, with particular impacts for climate refugees.

FEATURE

WHAT IS A CLIMATE REFUGEE?

The Environmental Justice Foundation (EJF) defines climate refugees as:

'Persons or groups of persons who, for reasons of sudden or progressive climate-related change in the environment that adversely affects their lives or living conditions, are obliged to leave their homes either temporarily or permanently, and who move either within their country or abroad.'[5]

The overwhelming majority of the world's climate refugees come from lower-income countries.[6] According to the United Nations (UN) High Commissioner for Refugees, 21.5 million people have been forcibly displaced each year since 2008 because of weather-related events. This number is expected to rise and does not include those displaced by slow-onset climate change.[7] While all refugees face enormous challenges, climate refugees lack even the ostensible protections afforded to people forced to leave their homes for other reasons, such as persecution or war. The effects of this exclusion are made clear in the Horn of Africa.

CASE STUDY: THE HORN OF AFRICA

The Horn of Africa is one of the most climate-vulnerable regions in the world. Six rainy seasons have failed since 2020, with at least 43.3 million people requiring lifesaving assistance across Ethiopia, Kenya and Somalia as of May 2023.[8,9] The most recent estimates find that the current drought has internally displaced around 2.28 million people in this region; in Somalia alone, it was 1.4 million.[10]

Somalia's contribution to global carbon dioxide emissions is less than 0.002 per cent, disproportionately small compared to its share of climate impacts.[11] Somalia is largely an agro-pastoralist economy, where livestock accounts for 40 per cent of its GDP, and 69 per cent of its population lives below the poverty line.[12] Ongoing violence in Somalia and the global food shortage as a result of the Ukraine war have been compounded by the long-running drought. Increasing pressure on farming and nomadic lifestyles has made these ways of life unviable for many, resulting in an increase in the number of climate refugees.

STORIES FROM DADAAB

The Dadaab refugee complex in Kenya was established in 1991 to house Somali refugees fleeing civil war. Many also ended up there after the 2010–2011 failed rainy seasons and climate-induced drought.[13] Today it is also home to those seeking refuge from the region's sixth consecutive failed rainy season.

Between October and early December 2022, an estimated 24,000 new Somali refugees arrived in Dadaab, a large proportion of the approximately 80,000 to arrive in the past two years.[14] Dadaab was designed to accommodate 90,000 people but currently holds more than 200,000, and the number is rising.[15] The available resources, space and funding are all insufficient, and many new arrivals live unregistered without access to water, food or medical services. The UN has called for funding to rapidly scale up support to the Horn of Africa; however, by December 2022, less than half its funding call had been met.[8]

The story of Dadaab – a camp born of inequality, climate change and war – remains largely unknown. Many people who moved to Dadaab in 1991 have remained and have seen their children and grandchildren born and sometimes buried there. Others returned home to Somalia after spending time in the camp, only to be forced back to Dadaab by worsening climate impacts in their homeland.

WHO IS RESPONSIBLE?

Climate refugees like Hassan, Wiilo, Iasha and Halima (see **Boxes 1-3**) are not responsible for the climate impacts that have driven them from their homes. Wealthy nations that have long benefitted from a carbon-intensive economy continue to approve new fossil fuel projects and are failing to stop existing ones. According to the International Energy Agency, new fossil fuel projects are not compatible with limiting temperature rise to 1.5C; achieving this relies on a sharp decline in fossil fuel use.[18]

In July 2023, UK Prime Minister Rishi Sunak pledged to use up the country's oil and gas reserves, authorising more drilling in the North Sea.[19] The Norwegian Government approved investments worth over US$18 billion in June 2023 to develop 19 oil and gas fields, which support the country's long-term plan of extending fossil fuel production over the next few decades.[20] Germany, despite promises to phase out coal, allowed the destruction of the village of Lützerath for the mining of poor-quality coal. This coal is unnecessary because of other energy sources like wind power and is not compatible with Germany's carbon-abatement objectives. It is therefore not needed.[21,22] These are just three examples, but wealthy nations across the globe are delaying or backtracking on their pledges, despite warnings.

Environmental science allows us to draw a direct line between these new contracts, the heightened emissions they will bring, and the human effects of climate change in places like Dadaab. There are three key pillars to

FEATURE

BOX 1. HASSAN

Hassan is a father of 10. He has been displaced to Dadaab twice: first during the 2010 drought, opting for voluntary repatriation after five years, and more recently after the current drought destroyed the farmland and herd he and his family had developed in Somalia. Despite loving his country and wanting to stay, he told EJF he had no choice but to walk for 18 days back to Dadaab.

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BOX 2. WIILO AND IASHA

Wiilo and Iasha were new arrivals when EJF spoke to them. They are single mothers who fled to Dadaab but are unregistered, which means they live on the outskirts and can only access food, water, healthcare and toilets by taking dangerous individual journeys. They told EJF that when searching for firewood, men would stare at them and chase them away; some girls who were caught were badly beaten. At night, the women must stay alert because they are at risk of being robbed or sexually assaulted.

Displaced women are particularly vulnerable to human rights abuses and systemic discrimination. Violence and sexual assault are commonplace on the way to the camp and on arrival, with interviewees reporting experiencing them daily.

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BOX 3. HALIMA

Halima is a disabled single mother with seven children. She moved to Dadaab when the drought dried up her farm and killed all her livestock. Her disability prevents her from working, and her unregistered status closes off another avenue to provide for herself and her family. She told EJF that because she did not have money for school, she had to beg the teacher to enrol her children.

Education is also often inaccessible to climate refugees. Across the Horn of Africa, 15 million children are out of school, and there are fears the drought will add 4 million more.[16,17]

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climate action: recognising climate refugees, providing greater financing to combat climate change, and rapidly cutting emissions.

FILLING IN THE LEGAL GAPS

There are significant legal gaps in the available protections for climate refugees. Under the 1951 Convention Relating to the Status of Refugees, to qualify as a refugee one must have a 'well-founded fear of persecution'.[23] Climate-related impacts may therefore not fall under the legal definition of persecution, meaning legal recognition is absent.[24] The protections available under more recent international agreements are also piecemeal, insufficient and often geographically limited, where they exist at all.[5]

A new legal framework outside the scope of the 1951 Convention is necessary – one which clearly defines who is a climate refugee and addresses the complex nature of the issue. This includes acknowledging immediate, event-based displacement and gradual ecological degradation that force people to flee over longer periods of time.[25] Such a framework would be a vital first step towards ensuring climate refugees receive the support they need.

LOSS AND DAMAGE

Addressing loss and damage – the consequences of human-based climate breakdown and the resulting need for compensation for affected parties – is the second part of the puzzle. However, the nations with the greatest role in causing climate change are not contributing their fair share, proportionate to their historic and ongoing emissions.

As a result of the efforts by leaders and activists from the global south, COP27 saw loss and damage on the agenda for the first time, which was an important step.[26] However, it was not quite enough. While the final COP27 agreement contains a climate loss and damage fund, precise commitments of amounts and which states will finance the fund remain to be discussed at COP28, due to take place towards the end of 2023.

There is understandable distrust among states, as the US$100 billion per year by 2020 pledged by industrialised countries for climate protection and adaptation at COP15 in 2009 failed to appear.[27] The delivery and scaling up of international climate finance commitments is essential, strengthening countries' capacities to respond quickly to climate-induced disasters. Funding must be agreed and mobilised at a much larger scale, at climate talks and beyond.

HOW DO WE REACH 1.5C?

Countries must also fully commit to decarbonisation, aligned with the Paris Agreement's goal to reduce emissions and keep global temperatures below 1.5C relative to pre-industrial levels. However, according to a recent UN report, there is 'no credible pathway to 1.5°C in place'.[28] COP27 failed to include text calling for the phase-out of all fossil fuels and, since 2022, only 36 countries have submitted an update to their nationally determined contributions, while 159 have not updated their targets.[29,30]

Wealthy, high-emitting countries must do more to decarbonise, including no new fossil fuel projects and a rapid phase-out of existing ones. This means ending fossil fuel subsidies, which currently make up 7.1 per cent of global GDP – more than education – and represent a direct public investment in a less-sustainable planet.[31] Lastly, it is time to scale up investment in renewable energy. Global renewable energy capacity, particularly solar, is increasing rapidly and is often the cheapest power-generation option, making the green transition a progressively more affordable solution to decision-makers.[32,33] With every degree in temperature rise, disasters and long-term climate impacts worsen, displacing more and more people. Immediate action is required to avoid reaching the Earth's tipping points, increasingly revealed by environmental science, and to prevent the suffering our current pathway would cause.[34]

CONCLUSION

The stories from Dadaab are only a few examples of how climate change and inequality are driving people from their homes and violating their human rights; how global heating is exacerbating existing conflicts and harm while creating new ones. Across the globe there are people like Hassan, who are forced to make hard decisions for their families, Wiilo and Iasha, who face violence due to their gender, and Halima, who face barriers to their children's education. Failure to take climate action to keep to 1.5C, by making the emissions cuts climate science indicates we need, will roll back advances for many of the world's poorest and have devastating consequences for human rights around the world.

The fundamental human right to a clean, healthy and sustainable environment is critically jeopardised by our reliance on carbon. Yet the solutions already exist to allow our global economic systems to achieve a fairer, more secure and sustainable 'real zero' global carbon

economy.[35] But this will require far greater ambition, much deeper, better and more effective collaboration, and international action in every geographic region, in every jurisdiction and in every sector.

And there is no time to waste. ES

Steve Trent has over 30 years of experience campaigning for environmental and human rights, creating effective campaigns and field projects, as well as leading investigations in over 40 countries. He is CEO and founder of the EJF and co-founded WildAid, serving as its president for over a decade.

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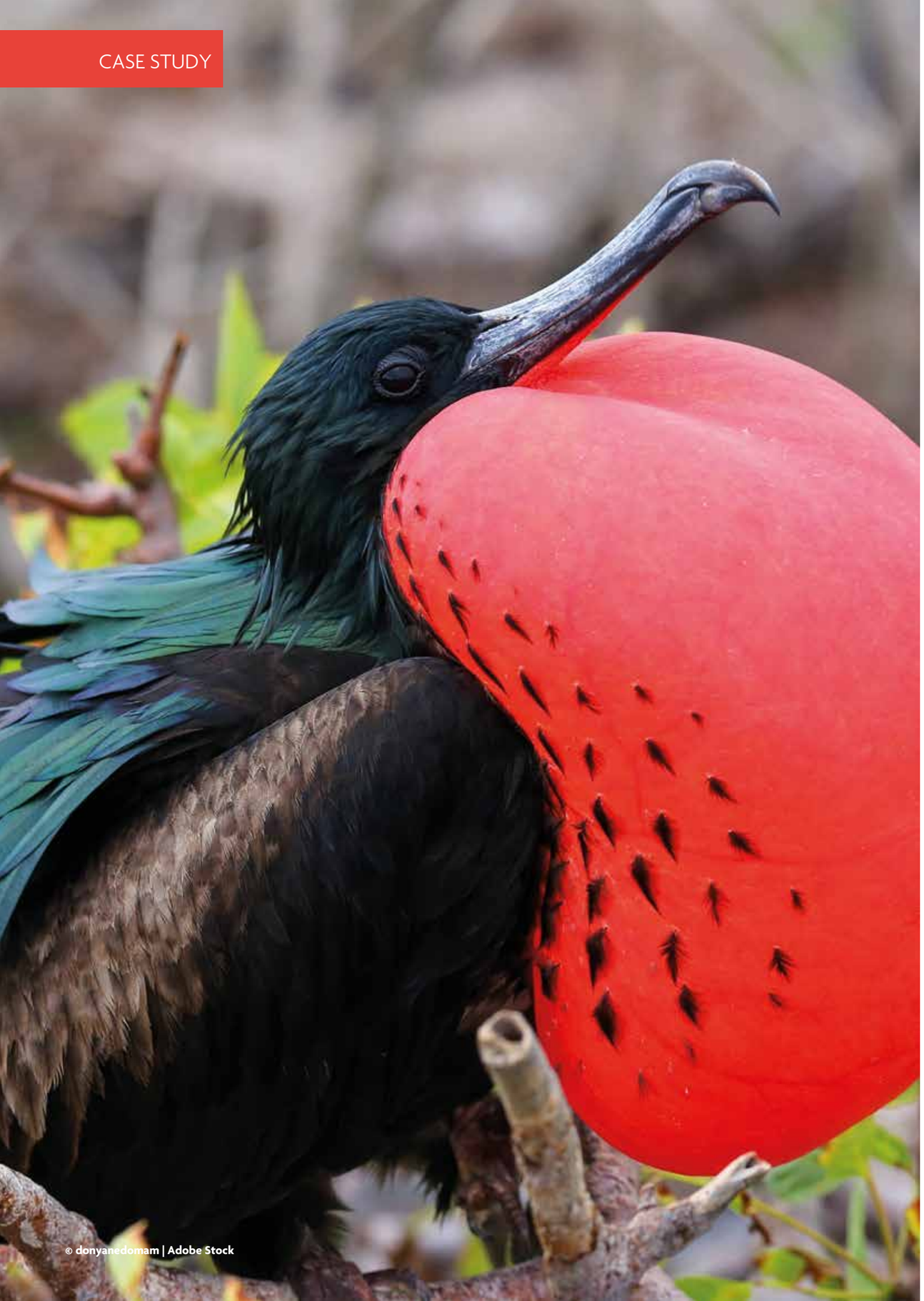

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CASE STUDY

Disaster capitalism and climate change: exploiting vulnerability in the wake of Hurricane Irma on Barbuda

Elesha George investigates the government's prioritisation of luxury developments over sustainable rebuilding and climate resilience measures.

The destruction caused by Hurricane Irma in September 2017 provides a backdrop for analysing the concept of disaster capitalism, where crises become opportunities for those with profit-driven agendas, often at the expense of vulnerable populations and ecological systems.[1] The Government of Antigua and Barbuda's decisions, including the establishment of an international airport and luxury resorts, underscore the skewed priorities at play, displacing local communities and threatening vulnerable ecosystems. The erosion of communal land rights, the disregard for conservation efforts and the pursuit of profit-driven development contribute to the vulnerability of the island of Barbuda's inhabitants in the face of future climate-related disasters.

DISASTER CAPITALISM AND DEVELOPMENT

The government's response to Hurricane Irma on Barbuda has raised questions about its priorities. While it attempted to address the needs of its citizens in the aftermath of the hurricane, when Barbuda was deemed uninhabitable and with people still under mandatory state evacuation orders, the government cleared hundreds of acres of land to begin building an airstrip for a new international airport that would accommodate private jets.[2] This shift aligned with the government's pursuit of elite tourism development to attract wealthy visitors.

In September 2017, Hurricane Irma set waste to the small island of Barbuda – a 62-square-mile coastal island in the Caribbean and one part of the twin-island state of Antigua and Barbuda. There were people still living in tents, who had not had their electricity restored when the government moved ahead with development plans for the island.[3] Less than a week after Irma hit Barbuda, and days after Prime Minister Gaston Browne ordered the emergency evacuation of residents in response to threats of a subsequent hurricane, he offered Barbudans freehold ownership of the lands where they lived and worked, saying there were Barbudans who were 'elated' over the offer.[4] According to the prime minister, during a special parliamentary session, 'The intent was … that Barbuda would be able to generate some level of revenue and that Antigua would have provided a subsidy. But clearly it has become a totally dependent relationship'.[5]

So it was no surprise that once the wind and heavy rains that had pounded the homes of 1,800 Barbudans subsided, the government stood ready to establish legislation that would allow islanders to own their land for a peppercorn rate of EC$1. The deeds that Barbudans would receive in return for buying the land they occupied could be used as collateral for bank loans to rebuild their homes, most of which had been uninsured. But it also meant that the government would claim the remaining unclaimed land as state property.

On 28 July 2023, the prime minister said in parliament that his government's plans for Barbuda would make it 'a Jumby Bay on steroids'.[6] This would be deviating from the quieter, relatively untouched Barbuda, which had remained that way for nearly three centuries: Jumby Bay is a 300-acre private, luxury island two miles off the coast of Antigua that has suites, villas and private residences, and which is owned and leased by the very wealthy. Prime Minister Browne continued, stating that 'the earnings for those hotels that we'll be attracting will be significantly greater than all the other hotels in Antigua and perhaps only second to Jumby Bay'.[6]

EROSION OF COMMUNAL LAND RIGHTS

The Paradise Found Act of 2015, which specified terms between Antigua and Barbuda regarding a particular Barbudan tourism project, marked a significant shift in land ownership practices, enabling wealthy US investors to develop the luxury tourism resort on the island.[7,8] This bypassed communal land rights, granting developers extensive leases and control over hundreds of acres of land. The act served as a precedent to marginalise the rights of Barbudans and establish the government's authority over communal land, favouring profit-oriented development over the interests of the local population.

It helped Prime Minister Browne's position when the Judicial Committee of the Privy Council, the last court of appeal for the Commonwealth nation, ruled

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against two Barbudans on 13 June 2022, who argued that the government breached the Barbuda Land Act of 2007 when it gave planning permission to developers Paradise Found LLC without consulting Barbudans.[9] The developers were given a 99-year lease for approximately 390 acres of land with an option for a further 50 years on completion of construction. The Paradise Found developers also had the option of leasing any land in Barbuda with the approval of the Barbuda Council, if they wished to expand the project.[7]

The Council's decision upended a centuries-old practice that recognised communal land ownership by the people of Barbuda. While the ruling only spoke to the one case brought before the Council, its declaration that Barbudans were only custodians of the Crown's land was all the government needed to solidify its position.

ECOLOGY AND CLIMATE CHANGE

The government's focus on elite tourism and profit-driven development comes at the expense of ecological conservation and climate change adaptation. Developments like Peace, Love and Happiness (PLH) have already begun encroaching on wetlands, mangroves and nesting grounds for endangered species, disregarding international conservation conventions and threatening local ecosystems.[10] The potential erosion of natural defences like the Codrington Lagoon increases vulnerability to climate-related disasters, particularly in the context of rising sea levels and more frequent extreme weather events.

A Jumby Bay model of development on Barbuda would mean the displacement of residents to develop the island as a vacation spot for wealthy visitors. Barbuda's Council – the island's local government – has already had to push back against the privatisation of beaches and destruction of protected wetlands and vital mangroves by the PLH project developers, whose developmental intentions would impact wetlands of international significance under the Ramsar Convention.[11] Opponents also argue that it jeopardises native and highly endangered wildlife and intrudes upon one of the largest nesting areas globally of the country's national bird – the frigate bird.[10]

As part of its billion-dollar development plan, PLH's luxury homes on Barbuda have already been sold for US$6 million for each one-acre plot. While some are happy for the employment opportunities that building luxury homes and resorts brings, others, who feel their traditional way of life is under threat, are apprehensive of this type of development. Individuals opposed to the idea persist in their protests, backed by global champions that include the non-governmental organisation Global Legal Action Network and the human rights group Front Line Defenders, headquartered in Dublin.[12]

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THE NEED FOR SUSTAINABLE DEVELOPMENT

The case of Barbuda emphasises the importance of sustainable development, which prioritises community wellbeing, climate resilience and ecological preservation. The government's failure to prioritise climate adaptation, despite opportunities to do so, raises concerns about the island's long-term viability in the face of a changing climate. The erosion of traditional practices and the displacement of local communities highlight the ethical dilemmas arising from disaster capitalism.

In the Caribbean, there is a rare chance to build the islands differently – by making them more resilient and climate friendly. Now is the time for governments to rethink what development truly represents for islands like Barbuda. One of the most pressing questions posed by these events is whether a development model that displaces people and leaves them more exposed to the impacts of climate change should be re-evaluated. The irony of building an airstrip for private jets on an island that had just weathered a catastrophic hurricane underscores the skewed priorities at play. The focus on attracting foreign investors and elite tourism overshadows the urgent need to fortify the island against future climate-related disasters.

For example, successive hurricanes and storms have damaged the sea walls of the Codrington Lagoon; following Hurricane Irma, this has led to a widening of the lagoon's entrance by an estimated 400 m, inviting predatory species.[13] Species including the spiny lobster, hawksbill and leatherback turtles, and a nesting colony of frigate birds all use the lagoon as a nursery and feeding ground. In March 2023, marine biologist John Mussington warned that the inflow of ocean water would change the lagoon's salinity level, which can affect the ability of some species to thrive and have knock-on effects on other ecosystems such as the country's coral reefs.[14]

But the government has never spoken about ways to resolve the issue. In fact, only passing remarks about creating a green economy on Barbuda have been made – such as after Hurricane Irma, when the government said it intended to use a substantial donation of $5.7 million from the United Arab Emirates to build a green environment on Barbuda by purchasing solar power equipment.[15]

Yet when the government achieved land autonomy, changing historical land ownership practices by passing amendments to the Registered Land Act in July 2023, there was no talk of a green environment but rather of the building of 'a high-end community'.[6] The act gives the government the power to dispose and lease land on Barbuda, the same way as on Antigua.

Trevor Walker, leader of the Barbuda People's Movement and a member of parliament for Barbuda said the bill represents 'another push in the ongoing attempt to bypass the Barbuda Council and restrict the exercise of its powers under the Barbuda Local Government Act'.[16] He has vowed to reverse the amendment when the opposition, the United Progressive Party, gains political majority.[17]

The intersection of disaster capitalism, elite development and climate change impacts on Barbuda reveals a complex web of interests that prioritises short-term profit over long-term sustainability. The decisions made in the aftermath of Hurricane Irma demonstrate how disaster capitalism can exacerbate vulnerability, disrupt communal land rights and undermine ecological resilience. This case underscores the urgency of re-evaluating development models that displace communities and neglect climate adaptation measures, thereby ensuring a more equitable and resilient future for vulnerable regions like Barbuda.

The Codrington Lagoon, a Ramsar wetland of international significance, holds more than ecological value; it also has the potential to safeguard against future storms. However, the disregard for conservation in favour of profit-driven development threatens the very essence of Barbuda's existence. ES

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FEATURE

Reflections on environmental justice in Ukraine

Iryna Babanina looks at the potential for justice within the limits of devastation from the war and the likely recovery prospects.

The full-scale war launched by Russia against Ukraine in February 2022 caused massive environmental devastation and rolled back environmental rights. On 28 July 2022, the United Nations (UN) General Assembly recognised by 161 votes that living in a clean, healthy and sustainable environment is a human right. Ukraine's ratification of the UN Economic Commission for Europe's Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (known as the Aarhus Convention) in 1998 motivated various environmental groups that were building on this cornerstone to advocate for the adoption of civil participation instruments.[1] The three pillars of the Convention include access to information, public participation and access to justice.

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FAIR ACCESS TO INFORMATION

The right of access to environmental information was a hard-won victory in Ukraine. Yet since the start of the Russian invasion, numerous registers have been closed to the public by a Cabinet of Ministers decree.[2] People have been unable to access information on air, soil and water quality monitoring data, land ownership, environmental impact assessments, and other data on environmental health and natural resource use. While some of these restrictions were justifiable for security reasons, others, including mining and logging permits – especially in communities located far from the front line – were excessive and could lead to corruption and misuse. This led to a civil backlash, and in May 2023 the Ministry of Environment yielded and passed an order restoring access to specific open datasets.[3]

However, little to no information is available on the state of the environment and the dangers to human health in the temporarily occupied territories. This issue first became evident in 2014, when the declining industrial legacy of the Donbas region, already posing significant cleanup challenges, was further damaged by the war and remained in the hands of separatist administrations.[4] Industrial enterprises in the Donbas region have either been working at reduced capacity or closed and abandoned with little to no rehabilitation, increasing future pollution risks. Coalmine flooding may have spiralled out of control under the so-called Donetsk People's Republic administration, threatening to poison the region's already scarce water sources.[5,6]

Since 24 February 2022, heavy fighting has affected numerous metallurgical and chemical enterprises. The Severodonetsk–Lysychansk–Rubizhne chemical and heavy engineering cluster of cities, which was past the environmental disaster tipping point long before the full-scale invasion, was exposed to severe bombardment, and Rubizhne was almost razed to the ground. In Mariupol, several factories were turned into fortresses, including the Illyich and the Azovstal steel and iron works (the latter becoming an emblem of the siege of Mariupol), and the buildings crumbled under the barrage of Russian weaponry. To make matters worse, as well as the industrial pollution, water treatment and waste management in these occupied cities are almost non-existent.

The state systems for environmental data collection in these territories became inoperable, and the occupation administrations are not engaging in any environmental monitoring and safeguarding. For example, hydrological monitoring posts on Siverskyi Donets – which is often called the artery of Donbas because it provides the main source of drinking water across three regions – are not available in the Luhansk and most of the Donetsk region. Sampling in other locations is only possible in places without active warfare. While sampling from accessible locations in the Kharkiv and Donetsk regions since the start of hostilities shows oil and polyphenol contamination as well as an increased nutrient content – which may mean failure of the wastewater treatment systems – there are no data on what is happening further downstream, where hundreds of thousands of people depend on the river.[7]

There are three main issues at play: a governance gap, when no strategic and management actions are taken to protect the environment; a monitoring gap, when virtually no environmental data are collected; and an accountability gap, when all practicable mechanisms to make the authorities comply with their environmental obligations are gone, and any protest puts people at severe risk of repression. This combination of problems effectively deprives people in the occupied territories of any environmental rights.

FEATURE

FAIR ASSESSMENT AND RECOGNITION

Proper assessment of environmental harm, health and safety impacts, loss of livelihoods, and ecosystem services will become essential during the post-war recovery in light of the scope and complexity of the damage in a country with diverse ecosystems and industries.[8] The hostilities have affected various types of habitats – including pine and mixed forests, grasslands, wetlands, dry grasslands and steppes, coastal and marine habitats on the shores of the Sea of Azov and Black Sea – that are important for birds.[9]

Moreover, numerous metallurgical, chemical, food and utility infrastructure sites have been destroyed. Recognition of the damage and fair evaluation are important first steps for effective environmental justice in any context, but the war adds a whole new dimension. While authorities and civil society have been vocal about the war's environmental impacts, the technical capacity to investigate and assess the damage is limited: the State Environmental Inspectorate is understaffed and overwhelmed; its lab facilities are struggling to handle the complexity and scope of analysis; and many sites are inaccessible because of the ongoing war or presence of landmines.

Mariupol, May 2020. © Google Earth 2023. Image: Landsat/Copernicus

Mariupol, October 2023. © Google Earth 2023. Image: Landsat/Copernicus

▲ **Industrial facilities damaged or disrupted by conflict in Ukraine, February–August 2022. (© Zoï Environment Network)**

In many cases, the need for rapid cleanup and restoration of basic utilities in a community disrupts proper investigation. Under such conditions, evidence may be lost if it is not accessed and recorded in time. Remote analysis methods have proved invaluable in compiling large amounts of preliminary data on environmentally hazardous incidents.[10] On-site investigations, however, will require significant resources to record direct damage. Meanwhile, indirect consequences – including livelihood changes, access to natural resources and their (re)distribution, loss or alteration of ecosystem services and land-use pattern changes caused by explosive pollution – will persist for decades.

FAIR PARTICIPATION IN DECISION-MAKING

With limited public hearings, demonstration bans and data-access problems, the situation is a considerable rollback of civil society participation in environmental decision-making. Indeed, certain other government initiatives that restrict public engagement have been passed, such as amendments that give disproportionate influence to real estate developers over consultations on urban planning, and these limit public discussion to registered residents and property owners in a specific area.[11] Then again, the recently adopted concept of so-called comprehensive recovery plans to be developed and adopted for the affected locations contains a solid environmental component.

Many communities demonstrate resilience and self-reliance in restoring their social and residential infrastructure, taking it as an opportunity to address long-lasting environmental issues. Therefore, many grassroots initiatives may develop to address the pressing tasks of immediate cleanup and long-term greener rebuilding, moving ranging from low-cost community-level research to developing renewable solutions for critical local backup infrastructure. This may create promising opportunities for both citizen science and citizen ownership in a more environmentally friendly recovery. Local initiatives will address practical and much-needed matters of safety, knowledge and autonomy, making them more viable than imposed strategies from the top.

Engagement of internally displaced persons in environmental decision-making is another complicated issue. On the one hand, those who have temporarily left their communities cannot attend consultations: they may be not aware of ongoing processes or may not find out about remotely held consultations in time. On the other

▲ **Reported damage and disruption to water infrastructure, water supplies and waterbody-related industrial risks resulting from the conflict in Ukraine. (© Zoï Environment Network)**

hand, they may not yet be considered part of their new community, and therefore they may be effectively excluded.

Meanwhile, the demolition of cornerstone infrastructure sites may also affect the fair recovery prospects of the communities that had formed around them. The destruction of the Kakhovka Reservoir is more than an environmental and economic disaster whose consequences are just gaining momentum; it is an unprecedented environmental and water justice challenge for the country. And while damages are still being calculated, the case of the Kakhovka dam poignantly illustrates the issues of environmental data access, fair resource use and fair participation. Little to no information is available on the water safety and soil contamination on the occupied left bank of the Dnipro River, which was affected much more severely than the areas controlled by the Ukrainian Government.

Historically, fresh water availability had been a key development – or development-limiting – factor for the southern regions. The reservoir provided water for domestic and industrial use for several major cities, as well as for the irrigation of about 350,000 ha, many of which are on the left bank of the Dnipro River.[12] After the dam's destruction, groundwater tables dropped in many communities, and whatever groundwater sources were still available became overexploited as an emergency solution when the centralised water supply stopped. As the groundwater recharge will likely decrease because of the reservoir loss, the effects on the groundwater yield and quality may be disastrous in the medium term.

Moreover, before the full-scale war, the Western Group Aqueduct supplied fresh water from the Dnipro River to the southern part of the Zaporizhzhia region (which has been occupied since September 2023). Large territories south of the Sea of Azov are facing acute water shortages because the surface watercourses are characterised by water scarcity, pollution, and high levels of hardness and sulphate. Many groundwater tables are unusable because of salinity.

It would be wise to have defined recovery solutions in place before the liberation of these territories. However, public participation in planning is far from inclusive. There is an increasingly vehement discussion on whether the reservoir should be restored: environmental groups are campaigning against it but without offering any tangible alternatives, while businesses are pushing for


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its restoration. However, it is the affected communities that should have the final say, as they will bear the brunt of water shortages. The right-bank communities are still grappling with the disastrous consequences of the flood under regular shelling by Russian forces and must focus on immediate survival needs. The left-bank communities, which will be fully dependent on the water Dnipro for agriculture and rebuilding, are silenced under the occupation.

Therefore, unless the recovery process is conducted wisely and impartially, numerous water-justice problems may arise, including:

- The shortage of water for long-term economic recovery projects, eventually preventing local revival;
- Higher water costs affecting rural livelihoods, small businesses and farmers;
- Overexploitation of alternative sources such as groundwater;
- Upstream versus downstream and local water use conflicts; and
- Increased politicisation of the matter.

As these examples demonstrate, various aspects of environmental justice will become increasingly prominent and complex problems in the coming decades of post-war recovery. As Ukraine society and the government adjust to the catastrophic effects of the invasion and seek to rebuild damaged public services, infrastructure and ecosystems, it is critical that the worst-affected communities are placed at the centre of the recovery process. Environmental justice should be a key consideration to restoring Ukraine's functioning as a democratic nation. ES

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