


What transformation means for environmental professionals

Ahead of the COP26 climate conference in November 2021, the IES is setting out the perspectives of environmental professionals on transformative change and the contribution it can make to robust climate action.

 In November 2021, COP26 will bring together experts and world leaders to discuss progress towards combating climate change, set ambitious targets for climate action, and agree coordinated efforts to reduce carbon emissions. The outcomes of COP26 must support transformative change to achieve absolute decoupling of the global economy from unsustainable systems of growth, consumption, and production, whilst simultaneously achieving environmental, social, and economic goals.

To move forward with ambitious climate action, we should go beyond the rhetoric of the importance of transformative change to action based on systems-level thinking and tangible goals, which depends upon interdisciplinary working. This work should be led by environmental professionals, who hold the expertise needed to shift our systems of production and consumption.

It is with this in mind that the IES has collected perspectives from six environmental professionals, asking them for their personal opinions on what transformation means for them, their profession, and for the work of professional bodies like the IES. Each contribution provides valuable insights into the practical dimensions of transforming global economic and social structures and provides a starting point for discussing what must be done to catalyse transformative change, identifying key areas in which the IES can support the environmental professions in this change.

Scott 'Xavi' Gudrich

Founder and Director, the Plover Rovers



“To me, transformative change means first and foremost a re-imagining of our position within the world, a re-positioning of humanity to resonate once more with the nature around us. Transformation needs to happen in the mind: We need to free ourselves from millennia of philosophies and religions creating a false dichotomy between “humans” and “nature”, bringing with it the notion that nature is for us to “use”.

A concept I encounter a lot in my work is that of “ecosystem services” and “natural capital” and while both can be useful tools for conservation within the current thought-system, they are in my opinion firmly rooted in the faulty assumption that nature is a service provider rather than an integral part of ourselves. I want to see a transformation

from an anthropocentric worldview towards concepts of togetherness, like multi-species eco justice.

Once we start re-imagining ourselves as parts of a whole rather than apart from the whole, crucial transformations of our society, like degrowth, circular economy and permaculture, are much more likely to be implemented at speed. I see my role as an environmental scientist as a facilitator: I want to give people the tools they need to affect this necessary mind-shift.”

Robbie Epsom

EMEA Head of ESG, CBRE Global Investors



“The necessary transformation of the global economy towards sustainability is huge; we are going through an ESG revolution where new science fiction level technology must be invented at pace whilst the business models, industry and technology of the past must be re-invented and re-imagined.

Sustainability professionals now find themselves engaging with c-suite level executives and decision makers and being asked to help shape the direction of travel for the global economy. Everything must now consider the environmental, social and governance angle. To meet this demand new roles from Chief Sustainability Officers down to ESG Analysts are emerging in all corners of the global economy. There is clearly a shortage of experts in this field which needs to be addressed and there is also a skills gap for many scientists and engineers already in the field who suddenly find themselves needing to be high profile external communicators, decision makers, and influencers.

Professional bodies have a key role to help those already in our sector to fill these gaps, whether through media, communications or negotiations training, or by preparing professionals for how to handle major decision processes such as investments, supplier selections, project approvals and low carbon design. In the short term, professional bodies will also need to facilitate those looking to upskill or retrain from other sectors to make the shift into sustainability to help meet the increased demand, and will also need to work from the grass roots level to ensure there are enough early career professionals entering the market to ensure we have a skilled future workforce ready to make the full transition to a green and just economy.”

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Brigette Reid

Director, Green Arch Consulting



“The momentum behind transformational change presents an incredible opportunity for environmental professionals. The overwhelming majority of countries, communities, organisations, businesses and individuals are now realising that a healthy environment and sustainable practices are not an option, but a necessity for a viable future. We are now witnessing tidal waves of efforts and actions to become green and sustainable.

However, these efforts and actions can often be formulated and driven by entities that do not understand the complexities and the interconnected dependencies of our environment and world. Efforts to be greener or to ban certain practices or products can often lead to less sustainable outcomes. An example is the ‘reusable coffee cup’ movement, in which an effort to reduce waste has resulted in the mass production of plastic merchandise. With many ending up in the bin or stored for eternity in the back of a cupboard, it is difficult to know if the consumption of resources and generation of waste from disposable coffee cups would outweigh that of the long-lasting and durable reusable coffee cup.

To ensure organisations and entities are directing their valuable efforts and resources towards actions that have truly sustainable outcomes, environmental professionals are critical; they are best placed to drive the necessary change in the right direction and to optimise outcomes to ensure results are commensurate to effort. As transformational change is required across all aspects of life, environmental professionals should now expect, and have the confidence, to draw on their knowledge and experience to tackle issues and contribute to solutions well beyond what we originally considered ‘in scope’ of our expertise.”

Dr Mark Everard

Associate Professor of Ecosystem Services,
University of the West of England



“We need to recognise the vital ecosystem services that underpin – but are largely overlooked by – the achievement of policy objectives, influencing not just within policy areas, but across them. Natural systems buffer against flooding and drought, averting for example railway flooding, clean the air and water, provide spiritually

valued, aesthetic and noise- or visual-buffering contexts in both urban and rural spaces, and renew soil fertility. We currently seek solutions in narrowly framed and technocentric ways that have unanticipated externalities, whereas natural systems do these things 24/7 for free with multiple co-benefits. This is a paradigm shift, but a necessary one in this 2021-2030 UN Decade on Ecosystem Restoration.

Natural processes are an undervalued contributor to specialist areas, but they also connect all other specialist areas, whether vectoring benefits or disbenefits. Professional bodies should champion the fact that ecosystems are foundational and vital resources underpinning future security and opportunity, not something external to us that we have to protect for altruistic reasons at net cost and constraint, which is the current misconception in the market of nature conservation and environmental protection.

Put simply, we will continue to undermine the fundamental resources underpinning future security and opportunity if we disregard the values that natural systems provide across all policy areas, from public health to conflict resolution.”

Jonathan Atkinson

Environmental Scientist and
IES Council member



“There is a view that unless we look at how we manage soils and increase soil health across the board, we have little chance of addressing climate change in any meaningful way that has any chance of mitigating its most significant likely effects. Only focusing on transport emissions or alternative energy supply won’t achieve what is needed. Soil health improvements via regenerative agricultural practices need addressing rapidly and for other land, habitat protection or enhancement and rewilding needs to be considered to address species loss and biodiversity generally.

Look out for the upcoming soils report from Society for the Environment. All professionals should seek opportunities at every level to discuss greening policy in agriculture, infrastructure development, waste management and sustainable living, with green grants for relevant projects. Current thinking on the new environmental land management schemes continues to evolve, it’s not just about new hedgerow; it’s about total catchment and land management.”

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David Kerr

*Principal Environmental Consultant,
WYG Belfast*



“As a science-driven sector, the contaminated land specialism may require research-derived data and targets to implement transformative change, in itself providing an opportunity for continual improvement, which is a key factor of sustainable development.

Transformative change may require new sampling, assessment and remediation techniques that go beyond achieving a set standard, but instead seeking betterment for the environment. This may include low carbon emitting remediation techniques, or factoring in carbon footprint into the cost benefit analysis when deciding on the best remediation techniques or approaches.

Changing this approach presents scientific, legislative, professional and business challenges, whether through research and analysis to derive new assessment criteria that factor in carbon emissions and longer term environmental harm; amending overarching directives, national acts and regional regulations; professionals challenging the status quo often with time and cost constraints; or being willing to offer new business solutions to clients whose objectives may not fully align with the ethos of transformative change. My role in transformative change could be in challenging the current approach and offering different solutions that go beyond simply achieving the desired target.

The challenge will be in highlighting the benefits of new approaches often where there will be cost and time implications. Professionals already play a key role in providing a platform for those involved in transformative change to present their work to their specific sector and also the wider industry. This role could and is being expanded by offering incentives for professionals to attend these events and hear these messages, such as contribution to continual professional development (CPD) hours and networking opportunities.”

Quick thoughts from environmental professionals

On Tuesday 30th March, the IES held a panel discussion on transformative change with Dr Helen Harwatt, Dr Toni Velazquez, Jess Britton, and Dr Simon Hatherley. The event explored four key systems which will need to be transformed to realise net zero goals: energy, food, transport and housing.

At the end of the event, the audience of professionals gave their thoughts on what transformation means for them. Here are some of the highlights:

“Transformation to me is the need for people and systems to move from incremental thinking to radical actions in order to realise desired outcomes.”

“Transformation for me is looking outside the box and ensuring it is fully understood by the community you live in. The one size fits all approach should not restrict our move forward.”

“Acting in accordance with the size of the problem.”

“As environmental scientists we need to look at environmental impacts across the environment to enable transformation, whether we look at ecology or contamination on a project, there are opportunities to improve the environment and reduce carbon at the same time.”

“Transformation for me means the opportunity to change for the better.”

“Our challenge is to ensure we do all we can to address climate change but at the same time meet the aspirations of our residents and businesses.”

“Transformation in my view is shifting from where we are now, whatever we do in the industry, to a less harmful process to the environment.”

“A cleaner, fairer and greener future.”

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Conclusion

Transformative change is needed across many different systems, necessitating the involvement of a broad range of environmental and social perspectives. This reflects the extent of change required for transformation at these scales, as well as the breadth of environmental disciplines and specialisms which have crucial expertise for societal transformation.

The overriding message is the need for shifts in both the ways we work and the ways we think. The IES, and other professional bodies, hold a unique position in that they are connected to professionals, employers, academic institutions, policymakers and the public. To drive change, it is integral that the IES and other professional bodies use their facilitating power to champion the voices of environmental professionals and connect them with key decision-makers.

To successfully achieve transformative change – and to decouple global economic and societal structures from pressures on climate and sustainability – we will continue to advocate for a systems level approach which accounts for multiple perspectives, and which draws on the expertise of environmental scientists across disciplines.

The IES will serve as a platform for these vital conversations, drawing on the knowledge and creativity of IES members to shape the discussion. We will also act on recommendations from our members to ensure we are providing the best support we can to those at the forefront of realising transformative change.

This work highlights that transformation is not only necessary, but also within our power if we take the right actions. This provides a valuable opportunity for environmental professionals and expertise to be embedded within all levels of society and the economy, allowing for a cleaner and greener future.

The IES is committed to representing diverse voices from across the environmental sector. The perspectives in this document were collected from an open call to IES members and by direct mail to members from several relevant specialisms. Further perspectives were collected by invitation during our panel discussion on transformation. We recognise, however, that they do not reflect the full diversity of opinions and voices in the environmental sciences, and remain committed to improving this representation. [Read more about the IES's commitment to tackling the sector's diversity gap here.](#)

About the Institution of Environmental Sciences (IES)

The IES is a visionary organisation leading debate, dissemination and promotion of environmental science and sustainability. We promote an evidence-based approach to decision and policy making.

We are devoted to championing the crucial role of environmental science in ensuring the well-being of humanity now and in the future.

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