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Building a bridge over turbulent waters: An equality impact assessment co-production approach to developing an environmental justice framework for the UK and beyond

Chantal Davies[1], Eghosa Ekhator[2], Kim Ross[1] and Holly White[1]

Abstract

There is increasing recognition that the environmental crisis places disproportionate burdens on already marginalised communities. It is also increasingly clear that environmental sustainability policies can increase inequality if not accompanied by broader policy measures to address inequalities. To seek to address these environmental inequalities, it is vital that the communities most impacted are at the centre of providing just environmental solutions that don't further disadvantage them. Thinking beyond the silos of disciplines and creating better nexus between inclusive approaches, equality legislation and the environment is key to addressing climate injustice and environmental inequalities. This paper details findings of research underpinned by an innovative interdisciplinary approach undertaken by the authors in 2023. This distinctive approach has provided an evidence base to develop a novel co-produced Environmental Justice Framework for the public and private sector across a sub-region of the UK. Underpinned by existing theory and practice around equality impact assessments (within the UK context), environmental justice and co-production principles, the authors present a Framework which encourages a new interdisciplinary justice centred approach to environmental sustainability decision making. It is argued that this approach (which encourages context based application)

[1]University of Chester, Chester, UK
[2]University of Derby, Derby, UK

Corresponding author:
Chantal Davies, University of Chester, School of Law and Social Justice, Parkgate Road, Chester CH1 4BJ, UK.
Email: chantal.davies@chester.ac.uk

could be usefully developed to provide a globally accessible framework for environmental justice.

Keywords
Equality, environmental justice, co-production, marginalisation, impact assessment

Introduction

As we move on from COP29 and the world seeks to demonstrate commitment to the Sustainable Development Goals in a meaningful way, there is a clear need to ensure that disproportionate burdens do not continue to fall on already marginalised groups within society. Whilst sustainable development provides an overarching framework for environmental governance, some argue that the need for environmental justice could be more explicitly built into the sustainable development goals and targets which would require more particular focus on recognition of marginalised voices[1].The Intergovernmental Panel on Climate Change (IPCC) recently reported that urgent action is needed to deal with increasing climate risk together with a recognition that the impact of the crisis disproportionately impacts on already disadvantaged communities. Similarly, any steps to mitigate this crisis need to be implemented fairly and equitably to avoid exacerbating inequalities and to ensure implementation success[2]. This increased focus on environmental inequalities and environmental justice is welcome and much needed on the world and domestic stage. There is also growing cautionary recognition that sustainability policies can increase inequality if not accompanied by broader policy measures to address inequalities[3]. Proceeding ethically and inclusively means engaging with those concerns in ways that negate them or at least ameliorate the most negative impacts through recognition of the importance of environmental justice. A critical part of this concerns formal processes of recognition - ensuring the visibility and accessibility of process by which those affected can have their say[4]. All possible efforts should be made to hear not only the widest range of voices, but those voices that can speak from the intersection of different identities[5].

In response to embedded and emerging environmental inequalities and building on recommendations of a Sustainable and Inclusive Growth Commission established by

[1] See Adrian Martin, Teresa Armijos, Brendan Coolsaet, Neil Dawson, Gareth Edwards and Roger Few, 'Environmental Justice and Transformations to Sustainability' (2020) 62(6) Environment: Science and Policy for Sustainable Development 19; Mary Menton, Carolos Larrea, Sara Latorre, Joan Martinez-Alier, Mika Peck, Leah Temper and Mariana Walter, 'Environmental justice and the SDGs: from synergies to gaps and contradictions' (2020) 15 Sustainability Science 1621.

[2] See Intergovernmental Panel on Climate Change, IPCC Sixth Assessment Report (IPCC 2022).

[3] See Eric Neumayer, Sustainability and inequality in human development (United Nations Development Programme Human Development Reports 2011).

[4] See Anne-Teresa Birthwright, 'Negotiating politics and power: Perspectives on environmental justice from Jamaica's speciality coffee industry' (2023) 189(4) The Geographical Journal 653.

[5] See Farhana Sultana, 'Critical Climate Justice' (2021) 188(1) The Geographical Journal 188.

local authorities, business stakeholders and academics in a subregion of England[6], the authors of this paper undertook a 12-month research project (the Inclusive Environments project). The aim of this project was to develop an innovative interdisciplinary environmental justice framework (the Environmental Justice Framework) for use by public and private sector decision makers to ensure inclusivity and environmental justice is mainstreamed throughout the development, implementation and monitoring of environmental sustainability policy and actions. This paper details the findings of the Inclusive Environments project and explores how this work builds upon existing strengths and work across a sub-region in England to seek to address identified environmental challenges by uniquely bringing together a diverse range of partners and disciplines from industry, local government, community and voluntary sector, academia, and communities (particularly marginalised voices).

For environmental justice to address environmental inequalities, it is argued throughout this paper that there is a need for a co-produced, interdisciplinary framework approach (such as that suggested by the Inclusive Environments project) towards seeking solutions that truly work. Such a framework should encourage a context driven sharing of power in relation to environmental sustainability to place marginalised voices at the centre of the decision-making process. In doing this, it is vital that the process of gaining and interpreting knowledge is democratised, and that better understanding of environmental impacts is developed through improved collaboration with community voices to fully understand the impact of policy development and implementation. Ensuring that marginalised communities are at the heart of such cross-disciplinary dialogues will enable people to participate actively in shaping environmental policies and practices that affect their lives.

In its 2022 Report, the Sustainable and Inclusive Growth Commission recommended that a toolkit be developed to assist the public and private sector to mainstream inclusivity throughout environmental sustainability decision making across the specific sub-region of Cheshire and Warrington in England[7]. Implementing this recommendation, the authors commenced the Inclusive Environments project[8] using previously developed principles of co-production[9] in community and stakeholder engagement to seek to develop an environmental justice framework for environmental sustainability decision making (based on existing equality impact assessment approaches) for use by public and private sector organisations across the sub-region of Cheshire and Warrington. This Inclusive Environments research explored existing learning and understanding around the Public Sector Equality Duty under the UK Equality Act 2010 and underpinning equality impact assessment approaches as a means of achieving environmental justice. This paper

[6] See Sustainable and Inclusive Growth Commission, Towards a Sustainable and Inclusive Cheshire and Warrington: Final Report (Cheshire and Warrington Local Enterprise Partnership 2022).

[7] See Sustainable and Inclusive Growth Commission, Towards a Sustainable and Inclusive Cheshire and Warrington: Final Report (Cheshire and Warrington Local Enterprise Partnership 2022).

[8] See Chantal Davies, Holly White, Kim Ross and Eghosa Ekhator, Inclusive Environments: Designing a Framework for Environmental Justice (Sustainable and Inclusive Growth Commission 2024).

[9] See Holly White and Kim Ross, Local Voice Framework Co-production definition and Principles (Cheshire West Voluntary Action and University of Chester 2024).

explores how this research and the consequent framework can provide a just approach to mitigating environmental inequalities for use across the UK and beyond.

This paper will commence with consideration of the background context around environmental inequalities and environmental justice. It will then consider how an approach influenced by equality impact assessment methodology and underpinned by principles of co-production can support environmentally just decision making. This context will then be triangulated with the findings from the Inclusive Environments research[10]. Finally, this evidence base will be explored as a foundation to support a robust and potentially globally accessible Environmental Justice Framework[11] for public and private sector use. Whilst environmentally just approaches towards decision-making are not unique, the Inclusive Environments project pushes the boundaries in two ways. Firstly, it suggests an approach to environmental sustainability decision-making which draws from a range of interlinking disciplines previously largely unexplored (legal, social and environmental). Secondly, the suggested Environmental Justice Framework has itself been developed in line with the principles of co-production which it seeks to promote and with the voices of diverse stakeholders and marginalised communities central to the development process. This research and consequent framework suggest a new potentially highly impactful approach to addressing major social and environmental challenges.

Background to environmental justice as a response to environmental inequalities

Whilst the climate and broader environmental crisis are an issue of international, national, and local equity, at a global level countries clearly differ in their experience of the impacts of and contribution to this crisis[12]. Countries with more equal distributions of income, better rights and higher literacy rates tend to have higher environmental quality than those who do not, and environmental issues tend to affect the poor disproportionately[13]. Equally whilst the wealthy can protect themselves from the negative impacts of environmental degradation, those who are poorer lack the resource to mitigate the impact[14].

The environmental justice ('EJ') movement was a response to a growing awareness of this concept of environmental inequalities and originally emerged from the US civil rights movement in the 1980s. EJ was born from the recognition that communities from poor and minority ethnic backgrounds were being disproportionately impacted by

[10] See Chantal Davies, Holly White, Kim Ross and Eghosa Ekhator, Inclusive Environments: Designing a Framework for Environmental Justice (Sustainable and Inclusive Growth Commission 2024).

[11] See Chantal Davies, Holly White, Kim Ross and Eghosa Ekhator, Environmental Justice Framework (Sustainable and Inclusive Growth Commission 2024).

[12] See Environmental Justice Commission, Environmental Justice Commission Report. Report (IPPR 2021).

[13] See Sumudu Atapattu, Carmen Gonzalez and Sara Seck, 'Intersections of environmental justice and sustainable development: framing the issues' in Sumudu Atapattu, Carmen Gonzalez and Sara Seck (eds), The Cambridge Handbook of Environmental Justice and Sustainable Development (Cambridge University Press 2021).

[14] See Julian Agyeman, Robert Bullard and Bob Evans, Just Sustainabilities: Development in an Unequal World (Boston: MIT Press 2003).

environmental issues and excluded from environmental decision making[15]. EJ has developed into a globally accepted approach to addressing broader environmental inequalities and within the US, the Biden administration has recently launched the Environmental Justice Office[16]. Furthermore, in April 2023, President Biden issued an Executive Order[17] on Revitalizing Environmental Justice for All which updated the definition of EJ to include *'the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability, in agency decision-making and other Federal activities that affect human health and the environment …'*

In the US, EJ has largely emerged as a response to environmental racism and therefore the two concepts are inextricably linked[18]. Broader literature in this area focuses on socioeconomic deprivation, and there have also been analyses by gender[19], age[20] and disability[21]. There is also an increasing plea to acknowledge the large variety of inequalities along different dimensions including intersectionality when considering climate justice[22].

Emerging largely from US research in this area, at its most basic, academics and theorists tend to break down the concept of EJ into concepts of distributive and procedural

[15] See David Schlosberg, Defining Environmental Justice: Theories, Movements and Nature. (Oxford University Press 2007).

[16] See The Independent, Biden administration launches environmental justice office (The Independent 24 September 2022).

[17] See The White House, Executive Order on Revitalizing Our Nation's Commitment to Environmental Justice for All (The White House 2023).

[18] See Kieren Rudge, 'Leveraging critical race theory to produce equitable climate change adaptation' (2023) 13 Nature Climate Change 623; Eric Mann, 'Climate justice for black New Orleans' (2006) 13(1) Race, Poverty & the Environment 18.

[19] See Sherilyn MacGregor, 'Gender and climate change: from impacts to discourses' (2010) 6(2) Journal of the Indian Ocean Region 223; Fatma Denton, 'Climate change vulnerability, impacts, and adaptation: Why does gender matter?' (2002) 10(2) Gender & Development 10; Geraldine Terry, 'No climate justice without gender justice: an overview of the issues' (2009) 17(1) Gender & Development 5; Eghosa Ekhator and Pedi Obani, 'Women and Environmental Justice Issues in Nigeria: An Evaluation' in Jadua Dawuni (ed.) Intersectionality and Women's Access to Justice (Lexington Books 2022); Eghosa Ekhator, Women and Access to Environmental Justice in Nigeria (Institute for African Women in Law 2020).

[20] See Yyuk Yang, Taedong Lee and Sirkku Juhola, 'The old and the climate adaptation: Climate justice, risks, and urban adaptation plan' (2021) 67 Sustainable Cities and Society; Charles Ogunbode, Nick Anim, Jeremy Kidwell, Amiera Sawas and Serayna Solanki, Spotlight - How people of colour experience and engage with climate change in Britain (University of Birmingham and University of Nottingham 2023).

[21] See Penelope Stein and Michael Stein, 'Disability, Human Rights, and Climate Justice' (2022) 44(1) Human Rights Quarterly 81; Molly King and Maria Gregg, 'Disability and climate change: A critical realist model of climate justice' (2022) 16(1) Sociology Compass.

[22] See Dirk Arne Heyen, 'Social justice in the context of climate policy: systematizing the variety of inequality dimensions, social impacts, and justice principles' (2022) 23(5) Climate Policy 539; Michael Mikulewicz, Martina Caretta, Farhana Sultana and Neil Crawford, 'Intersectionality & Climate Justice: A call for synergy in climate change scholarship' (2023) 32(7) Environmental Politics 1275.

justice. For the purposes of this paper a basic dual framework will be utilised. Distributive justice focuses on the equitable distribution of environmental risks and benefits[23]. Procedural justice focuses on who gets to engage in fair and meaningful environmental decision making[24]. Although critical conceptualisation of EJ is beyond the scope of this paper, more recently the concept has been broadened to include distributive, procedural and recognition elements[25]; sometimes referred to as the 'three concepts of justice'[26]. For some, procedural justice also includes access to justice and the ability to seek legal redress if environmental laws are breached[27]. Indeed, there is a broader (still mooted) EJ framework suggested which includes 'distributive justice' (fair and equitable distribution of environmental harms and benefits); 'recognitional justice' (recognition of and respect for marginalised groups, perspectives, and ways of knowing); and 'representational justice' (procedures to ensure representation of diverse perspectives in decision making)[28].

Much of the existing focus has been on distributive justice and the disparate impact of the environmental crisis on marginalised communities[29]. However, over the last decade there has been an expansion of dialogue in relation to procedural elements of EJ, not just focusing on who participates but how they participate in environmental planning and decision making. Similarly, the importance of engaging the community voice in response to the environmental and climate crisis is becoming more central to EJ considerations[30].

Discourse has moved beyond consideration of environmentally just responses to environmental inequalities, indeed there is growing recognition that environmental sustainability measures may themselves further exacerbate inequalities if implemented without engaging with distributive and procedural justice. Studies have suggested that vulnerable and marginalised communities may be at risk of material injury following climate change interventions and be further impacted by a lack of representation, recognition and by misrecognition as stereotyped victims in local, national, and international

[23] See Adrian Martin, Teresa Armijos, Brendan Coolsaet, Neil Dawson, Gareth Edwards and Roger Few, 'Environmental Justice and Transformations to Sustainability' (2020) 62(6) Environment: Science and Policy for Sustainable Development 19.

[24] See Natural England, The Messy Challenge of Environmental Justice in the UK: Evolution, Status and Prospects (Natural England 2019).

[25] See Eghosa Ekhator and Edward Okumagba, 'Climate Change, and Multinationals in Nigeria: A Case for Climate Justice' in Kim Bouwer, Uzuazo Etemire, Tracy-Lynn Field and Ademola Oluborode Jegede (eds) Climate Litigation and Justice in Africa (Bristol University Press 2024).

[26] See Gordon Walker, Environmental Justice Concepts, Evidence and Politics (Routledge 2012).

[27] See Natural England, The Messy Challenge of Environmental Justice in the UK: Evolution, Status and Prospects (Natural England 2019).

[28] See David Schlosberg, Defining Environmental Justice: Theories, Movements and Nature. (Oxford University Press 2007); Gwendolyn Blue, Kelly Bronson and Alana Lajoie-O'Malley, 'Beyond distribution and participation: A scoping review to advance a comprehensive environmental justice framework for impact assessment' (2021) 90 Environmental Impact Assessment Review.

[29] See Morey Burnham, Claudia Radel, Zhao Ma and Ann Laudati, 'Extending a Geographic Lens Towards Climate Justice, Part 1: Climate Change Characterization and Impacts' (2013) 7(3) Geography Compass 239.

[30] See David Schlosberg and Lisette Collins, 'From environmental to climate justice: climate change and the discourse of environmental justice' (2014) May/June WIREs Climate Change 359.

environmental sustainability conversations[31]. Indeed, studies synthesising evidence from existing literature suggest that many environmental sustainability policies are linked to both co-benefits and adverse side-effects and can either heighten or reduce socio economic inequalities depending on contextual factors, policy design and policy implementation[32].

It is further argued that negative impacts of environmental sustainability policies and measures can be mitigated by a focus on procedural justice involving conscious effort, careful planning and multi-stakeholder engagement and the best results are achieved when inequality impacts are taken into consideration in all stages of policy making[33].

The emerging dialogue around environmental justice in the UK

Environmental justice is understood to have diverse meanings across developed and developing countries[34]. Whilst Europe has not had an EJ movement comparable to the US, there is a steadily increasing body of UK work[35]. In the UK in particular, the focus is on issues of poverty, health, and social exclusion but with some intersectional considerations in relation to racial impact[36]. Indeed, whilst environmental inequalities in the UK have only been actively researched in the last three decades, it is now considered to have one of the best developed evidence bases in Europe although much of the research has focussed on small scale localised datasets[37].

[31] See Elizabeth Marino and Jesse Ribot, 'Adding insult to injury: Climate change and the inequities of climate intervention' (2012) 22(2) Global Environmental Change 323.

[32] See Sanna Markkanen and Annela Anger-Kraavi, 'Social impacts of climate change mitigation policies and their implications for inequality' (2019) 19(7) Climate Policy 827.

[33] See Sanna Markkanen and Annela Anger-Kraavi, 'Social impacts of climate change mitigation policies and their implications for inequality' (2019) 19(7) Climate Policy 827.

[34] See Rhuks Ako and Damilola Olawuyi, 'Environmental Injustice in Nigeria: Divergent Tales, Paradoxes and Future Prospects' in Ryan Holifield, Jayajit Chakraborty and Gordon Walker (eds), The Routledge Handbook of Environmental Justice (Routledge 2018); Eghosa Ekhator and Godswill Agbaitoro, 'Placing the Rule of Law and Environmental Justice in the Resource-Conflict Nexus in Nigeria' in Ogasesam Okoi and Victoria Nalule (eds) Governing Natural Resources for Sustainable Peace in Africa Environmental Justice and Conflict Resolution (Routledge 2024).

[35] See Nick Banks, Climate Change and Social Justice: An Evidence Review (Joseph Rowntree Foundation 2014); Malcolm Eames, Reconciling Environmental and Social Concerns: findings from the JRF research programme (Joseph Rowntree Foundation 2006); Karen Lucas, Gordon Walker and Malcolm Eames, Environment and Social Justice. Report (Sustainable Development Research Network 2004); Gordon Walker, 'Environmental justice, impact assessment and the politics of knowledge: The implications of assessing the social distribution of environmental outcomes' (2010) 30(5) Environmental Impact Assessment Review 312.

[36] See Eghosa Ekhator and Godswill Agbaitoro, 'Placing the Rule of Law and Environmental Justice in the Resource-Conflict Nexus in Nigeria' in Obasesam Okoi and Victoria Nalule (eds) Governing Natural Resources for Sustainable Peace in Africa Environmental Justice and Conflict Resolution (Routledge 2024); Rhuks Ako, 'Nigeria's Land Use Act: an anti-thesis to environmental justice' (2009) 53(2) Journal of African Law 289.

[37] See Natural England, The Messy Challenge of Environmental Justice in the UK: Evolution, Status and Prospects (Natural England 2019).

At a European level, the EJ movement has emerged in response to intergovernmental international agreements largely focusing on human rights including the right to a clean and safe environment; right to environmental information and participation in decisions affecting the environment. Internationally, these rights have been established through the UN Economic Commission for Europe (UNECE) and the Aarhus Convention on Access to Information, Public Participation in Decision making and Access to Justice in Environmental Matters. EU Directives have implemented the Aarhus convention giving citizens greater access to environmental information (2003/4/EC) and enhanced participation in decisions affecting the environment (2003/35/EC).

Unlike in the US, few laws and institutions specifically tackle environmental injustice in the UK. Some regulatory mechanisms on EJ, especially regarding access to EJ and public participation in environmental decision-making, are covered by the Environment Act 2021 and the UK ratification of the Aarhus Convention[38]. The Aarhus Convention came into force on 30 October 2001 with the UK ratifying it on 23 February 2005. In the UK, the Aarhus convention *'acknowledges the role that members of the public play in protecting the environment. The Convention gives individuals and civil society groups, including environmental charities, certain rights and imposes obligations on signatory Parties (such as the UK government) and public authorities regarding access to information, public participation and access to justice'*[39]. However, even though the UK is a party to the Aarhus Convention, it has not been fully transposed into UK law. Similarly, whilst Section 19 of the Environment Act 2021 was modelled on the Public Sector Equality Duty under the Equality Act 2010 and imposes a duty on the government to have due regard to five environmental principles when making policy decisions, Lee has argued that this negatively impacts on public participation in environmental issues in the country[40].

Despite the lack of a specific legislative framework, a significant level of national work focusing on EJ is routed in governmental activity and from 1992, 'environmental equality' was one of the UK government's sustainable development indicators. It was also seen by some as integral to the levelling up agenda[41]. The Environment Agency in England regularly publishes specific reports addressing environmental inequalities[42]. In

[38] See Chiara Armeni and Maria Lee, 'Participation in a time of crisis' (2021) 48(4) Journal of Law and Society 549.

[39] See ClientEarth, Public Participation in Environmental Matters in the UK/England & Wales (ClientEarth 2022).

[40] See Maria Lee 'The Aarhus Convention 1998 and the Environment Act 2021: Eroding Public Participation' (2023) 86(3) Modern Law Review 756.

[41] See Gov.UK, Environmental inequality must not be ignored (Gov.UK 2021).

[42] See Environment Agency, Using science to create a better place: addressing environmental inequalities: Flood Risk (Environment Agency 2006); Environment Agency, Using science to create a better place: addressing environmental inequalities: water quality (Environment Agency 2008); Environment Agency, State of the environment: health, people and the environment (Environment Agency 2023).

addition, there is an increasing corpus of secondary work in this area[43]. Several UK based NGOs have focused on the need to address environmental inequalities (e.g., Friends of the Earth, Friends of the Earth Scotland, Capacity Global, Groundwork UK, London Sustainability Exchange).

Notably in May 2019, the Institute for Public Policy Research established an Environmental Justice Commission building on its work on environmental breakdown and its Commission for Economic Justice. The Commission's central aim was *'to present an ambitious, positive vision shaped around people's experiences and needs and develop a plan of action that integrates policy both to address the climate and environmental emergencies and to deliver economic and social justice'*[44]. The Commission's 2021 report placed people at the centre of its recommendations and the necessary approach to developing them. The report recommended six major shifts in the UK's approach to addressing the climate and nature crisis to achieve distributive and procedural justice (see Figure 1).

Following COP28 in 2023, COP29 in 2024 and the report of the Environmental Justice Commission, there is a push to ensure that the opportunity to increase focus on environmental inequalities and EJ is not missed at a domestic level.

Utilising impact assessments to ensure environmental justice

Whilst this context demonstrates support for environmentally just decision making within the UK, the lack of a legal framework to support this presents difficulties. Although, the UK human rights and environmental legislative framework has played some role in promoting and protecting marginalised communities from environmental inequalities[45], this paper focuses on the less well explored link between UK equality legislation as a framework for environmental justice. This broader legislative context is considered further in the Inclusive Environments full report[46]. For EJ to truly evolve as a solution to environmental inequalities in the UK and beyond, a multi-disciplinary approach towards EJ solutions is required. Therefore, exploring how existing mechanisms can be utilised by the public and private sectors to ensure distributive and procedural justice in relation to environmental issues is key. This paper (and the Inclusive Environments research upon which it is based) argues that there is a need to explore means of potentially reframing existing impact assessment approaches to ensure EJ in developing, implementing, and evaluating environmental policy and decision making.

[43] See Nick Banks, Climate Change and Social Justice: An Evidence Review (Joseph Rowntree Foundation 2014); Sarah Lindley, John O'Neill, Joseph Kandeh, Nigel Lawson, Richard Christian and Martin O'Neill, Climate change, justice and vulnerability (Joseph Rowntree Foundation 2011); Anne-Michelle Slater and Ole Pedersen, 'Environmental justice: lessons on definition and delivery from Scotland' (2009) 52(6) Journal of Environmental Planning and Management 797.

[44] See Environmental Justice Commission, Environmental Justice Commission Report. Report (IPPR 2021: 1).

[45] See for example Ole Pederson, 'Environmental justice in the UK: uncertainty, ambiguity and the law' (2011) 31(2) Legal Studies 279.

[46] See Chantal Davies, Holly White, Kim Ross and Eghosa Ekhator, Inclusive Environments: Designing a Framework for Environmental Justice (Sustainable and Inclusive Growth Commission 2024: 37).

Figure 1. Six shifts in approach needed for a successful transition (Environmental Justice Commission, 2021, P11).

Others have argued that existing impact assessment tools could be better used to mitigate environmental inequalities and promote EJ[47]. Globally there are a range of potential impact assessment tools that are used in an environmental context[48]. In the US, use of impact assessments to ensure EJ is more advanced and environmental equity appraisal methods developed by the US Environmental Protection Agency have previously been applied by Executive Orders requiring all federal bodies to make EJ part of their working practices. However, even these focused methods have been criticised for

[47] See Steve Connelly and Tim Richardson, 'Value-driven SEA: time for an environmental justice perspective' (2005) 25(4) Environmental Impact Assessment Review 391; Gordon Walker, 'Environmental justice, impact assessment and the politics of knowledge: The implications of assessing the social distribution of environmental outcomes' (2010) 30(5) Environmental Impact Assessment Review 312.

[48] See Gordon Walker, 'Environmental justice, impact assessment and the politics of knowledge: The implications of assessing the social distribution of environmental outcomes' (2010) 30(5) Environmental Impact Assessment Review 312; Gwendolyn Blue, Kelly Bronson and Alana Lajoie-O'Malley, 'Beyond distribution and participation: A scoping review to advance a comprehensive environmental justice framework for impact assessment' (2021) 90 Environmental Impact Assessment Review.

concentrating on distributive justice concerns and then only in relation to a limited range of environmental concerns[49]. In comparison at a national level in the UK, there has been little consistent use of impact assessments to ensure procedural and/or distributive justice in the environmental decision-making process. Indeed, approaches have been at best piecemeal using existing tools which do not fully integrate social and environmental concerns.

This paper does not seek to provide a full scoping of impact assessments that are and could be used in an EJ context globally and/or nationally. Others have attempted to produce scoping summaries including Walker[50] and more recently Blue et al[51]. Walker described a wide range of impact assessment and policy appraisal tools used in the UK context[52]. A study originally completed for Friends of the Earth identified 16 different forms of impact assessment as potentially relevant to environmental justice concerns[53]. These were largely in relation to distributive rather than procedural justice (including environmental impact assessments (EIAs), strategic environmental assessments (SEAs), social impact assessments, health impact assessments, equality impact assessments (EqIAs), sustainability appraisal). Some of these assessments were statutory (such as EIAs, SEAs, sustainability appraisals, EqIAs in Scotland, and NI). However, others such as social impact assessments which consider the impact of a proposed action on the life of individuals and communities and explicitly analyse patterns of impact on people and communities, have no statutory status and are rarely used in the UK[54]. Further exploration of broader use of impact assessments within an EJ context can be found in the Inclusive Environment full research report[55].

[49] See Gwendolyn Blue, Kelly Bronson and Alana Lajoie-O'Malley, 'Beyond distribution and participation: A scoping review to advance a comprehensive environmental justice framework for impact assessment' (2021) 90 Environmental Impact Assessment Review; Ryan Holifield, 'Neoliberalism and environmental justice in the United States environmental protection agency: Translating policy into managerial practice in hazardous waste remediation' (2004) 35(3) Geoforum 285; Office of Inspector General EPA, EPA needs to consistently implement the intent of the Executive Order on Environmental Justice (Office of Inspector General Environmental Protection Agency 2004).

[50] See Gordon Walker, 'Environmental justice, impact assessment and the politics of knowledge: The implications of assessing the social distribution of environmental outcomes' (2010) 30(5) Environmental Impact Assessment Review 312.

[51] Gwendolyn Blue, Kelly Bronson and Alana Lajoie-O'Malley, 'Beyond distribution and participation: A scoping review to advance a comprehensive environmental justice framework for impact assessment' (2021) 90 Environmental Impact Assessment Review.

[52] See Gordon Walker, 'Environmental justice, impact assessment and the politics of knowledge: The implications of assessing the social distribution of environmental outcomes' (2010) 30(5) Environmental Impact Assessment Review 312.

[53] See Gordon Walker, 'Environmental justice and the distributional deficit in policy appraisal in the UK' (2007) 2(4) Environmental Research Letters.

[54] See Gordon Walker, 'Environmental justice, impact assessment and the politics of knowledge: The implications of assessing the social distribution of environmental outcomes' (2010) 30(5) Environmental Impact Assessment Review 312; Rabel Burdge, 'The practice of social impact assessment background' (2003) 21(2) Impact Assessment and Project Appraisal 84.

[55] See Chantal Davies, Holly White, Kim Ross and Eghosa Ekhator, Inclusive Environments: Designing a Framework for Environmental Justice (Sustainable and Inclusive Growth Commission 2024).

Underpinned by the Inclusive Environments research findings, this paper will particularly focus on the use of equality impact assessments (EqIAs) predominantly utilised by public sector bodies in England, Scotland and Wales as a means of meeting the Public Sector Equality Duty pursuant to the Equality Act 2010 (EA 2010). The Inclusive Environments research suggests EqIAs can be adapted as a foundational approach for ensuring procedural and distributive EJ by the public sector and beyond. Whilst Walker previously noted the potential for the use of EqIAs as a means of assessing the distributive impacts of ES measures and policy on marginalised communities, he concluded that there was little evidence of systematic use of EqIAs to assess impact in environmental decision making[56].

The use of EqIAs is no longer mandatory in England (but remains so in Wales and Scotland). Nevertheless, the Public Sector Equality Duty (PSED) provides the legislative framework prompting application of EqIAs in relation to the 'protected characteristics' under the EA 2010.

In Britain, the Equality Act 2010 harmonised previous separate equality duties into a Public Sector Equality Duty (PSED) and extended this across the protected characteristics covered by the legislation. The general PSED under Section 149 of the Equality Act 2010 requires organisations to consider how they could positively contribute to the advancement of equality and good relations. As stated in the Equality and Human Rights Commission's Guide to the PSED: *'the broad purpose of the general equality duty is to integrate consideration of equality and good relations into the day-to-day business of public authorities'*[57].

Under the PSED, public authorities must, in the exercise of their functions, have due regard to the need to:

- eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the EA 2010
- advance equality of opportunity between people who share a protected characteristic and those who do not
- foster good relations between people who share a protected characteristic and those who do not

This general PSED is supported by specific duties implemented under secondary legislation and these differ between England, Scotland, and Wales. Neither Section 149 of the EA 2010 nor the specific regulations provide much detail or prescription about the approach a public body should take to comply with their legal obligations. Rather it has fallen to the national Courts to interpret and provide principles via case law on the PSED. Much of this case law has been around the meaning of 'due regard' in relation to the

[56] See Gordon Walker, 'Environmental justice, impact assessment and the politics of knowledge: The implications of assessing the social distribution of environmental outcomes' (2010) 30(5) Environmental Impact Assessment Review 312.

[57] See Equality and Human Rights Commission, Public Sector Equality Duty Guidance. Report (EHRC undated).

general equality duty aims (see inter alia: R (Brown) v Secretary of State for Work and Pensions (2008), Bracking v Secretary of State for Work and Pensions (2013)).

One of the main tools to help public bodies meet their obligations under the PSED are EqIAs. There are specific duties to assess equality impacts of policies in Scotland and Wales. However, while there is no legal obligation to carry out a process labelled as an EqIA in England, the steps that the courts have said public bodies need to take to demonstrate that they have had 'due regard' to equality under the PSED arguably include the main elements of an EqIA. Importantly, if public bodies don't keep some sort of record of this, it will be hard to prove they have had due regard to equality under the PSED. In essence, this approach amounts to an EqIA.

An EqIA is a practical process enabling organisations to systemically draw on available evidence, data monitoring and consultation to assess and record the likely impact of their work on individuals or groups before making a decision and take action to mitigate and/or minimize the impact of such decisions, where appropriate.

A key element of an EqIA is that an organisation take account of equality as they develop policy and plans. Therefore, engaging with the EqIA at the end will result in a lack of proper consultation and opportunities for picking up issues and adjusting as part of the policy development will be missed. The case law interpreting the PSED has also made it clear that the legal obligation is a continuing cyclical duty and as such a public body must consciously consider the need to comply with the PSED not only when the policy is developed and decided upon but also when it is being implemented.

Recent legal challenge by means of judicial review of public authorities in the UK for breach of the PSED in relation to environmental decision making under s149 has demonstrated potential application as a tool to ensure distributive and procedure EJ (see inter alia: Gathercole v Suffolk CC (2020) and McLean's (2024)).

The importance of co-production in developing an environmental justice framework

Whilst the jurisprudence and guidance in relation to the PSED suggest the need for consultation with marginalised communities to mitigate negative impacts, it is argued that often this does not go far enough in engaging community voices. It is argued that central to any EqIA process should be co-produced solutions for addressing inequalities. Similarly, at the heart of emerging EJ dialogue is the need for co-produced ES policy and decision making. Indeed, a robust equality impact assessment framework around ES arguably requires a co-production approach to understand distributional impacts and ensure procedural justice around decision making. White and Ross[58] led a systematic literature review, semi-structured interviews, and workshops with practitioners and experts by experiences to co-produce a working definition and set of principles for co-production:

[58] See Holly White and Kim Ross, Local Voice Framework Co-production definition and Principles (Cheshire West Voluntary Action and University of Chester 2023).

> 'Co-production is the building of respectful and empowering relationships alongside the sharing of ideas between those with lived experience and other stakeholders. Both contribute their knowledge, skills and experiences to cocreate actionable change'.

Djenontin and Meadow have recently focused on co-production of knowledge in climate and environmental management and considered co-production in this context to be the *'contribution of multiple knowledge sources and capacities from different stakeholders spanning the science-policy-society interface with the goal of co-creating knowledge and information to inform environmental decision making'* [59]. Therefore, this form of participatory and inclusive knowledge generation is a form of co-production which seeks to place marginalised groups in a position to develop responses to the environmental crisis.

Notably, many of the barriers to effective co-production lie in the *'asymmetry of power in environmental decision-making partnerships'* [60] and public involvement is often viewed as a battle against policy makers in the environmental arena[61].The Environmental Justice Commission clearly pointed to the need for communities to play a meaningful role in environmental decision-making[62]. Equally it is argued that deliberation on EJ matters still excludes the most disempowered groups and limits discussion to a narrow range of options pre-determined by those in power[63]. Similarly, co-production around EJ is criticised as failing to affect policy when it presents a challenge to existing political and economic interests[64].

Emerging dialogue also suggests that there is a need to work with communities on their own terms and Tubridy et al suggest that *'an ideal model might involve technical experts taking on a supporting rather than a leading role and helping communities to navigate what will inevitably be complex processes of decision-making and planning.'* [65]

It is worth noting that co-production places emphasis on fostering long-term, equal collaborations with stakeholders and communities working together as equal partners to design throughout the entirety of a project. It is through these means that co-production differs from other participatory approaches. For example, whilst multi-stakeholder consultation approaches do involve some participation through gathering input or feedback at specific points, the final decision-making is made by the lead organisation.

[59] See Ida Djenontin and Alison Meadow, 'The art of co-production of knowledge in environmental sciences and management: lessons from international practice' (2008) Environmental Management 885.
[60] See Karen Bell, 'Achieving Environmental Justice in the United Kingdom: A Case Study of Lockleaze, Bristol' (2008) 1(4) Environmental Justice 203.
[61] See Lorna Dargan, A new approach to regeneration? Reflections on the New Deal for Communities (Centre for Urban and Regional Development Studies 2002).
[62] See Environmental Justice Commission, Environmental Justice Commission Report. Report (IPPR 2021).
[63] See Chad Raphael, 'Engaged Communication Scholarship for Environmental Justice: A Research Agenda' (2019) 13(2) Environmental Communication 1.
[64] See Mohan Dutta, 'Decolonizing Communication for Social Change: A Culture-Centered Approach' (2015) 25(2) Communication Theory 123.
[65] See Fiadh Tubridy, Mick Lennon and Mark Scott, 'Managed retreat and coastal climate change adaptation: The environmental justice implications and value of a coproduction approach' (2022) 114(3) Land Use Policy.

Co-production emphasises equal partnerships where all parties actively shape decisions and outcomes throughout[66]. Compared to community-led impact assessments, where communities evaluate impacts and frame priorities independently, co-production involves communities and stakeholders collaboratively co-creating projects or solutions from the outset, as opposed to solely assessing their impacts. Similarly, while co-designed research approaches involve collaboratively developing goals, methods, and frameworks with input from non-academic stakeholders, co-production extends this collaboration to include shared responsibility for implementation, evaluation, and dissemination[67].

The Inclusive Environments research and development of an environmental justice framework

Considering this background context, a three-pronged multi-disciplinary approach based on a recognition of synergies around emerging dialogue on EJ, EqIAs and co-production has underpinned the research upon which this paper is based.

In November 2020, the Cheshire and Warrington Sustainable and Inclusive Growth Commission (SIGC) was established which aimed to contribute towards realising Cheshire and Warrington's ambition of becoming the most sustainable and inclusive sub-region in the UK. The SIGC is made up of elected representatives from each local authority across the sub-region and a local enterprise partnership board member, as well as representatives from carbon intensive industries and agriculture, finance and investment, energy, and experts from civil society including university, housing, and local nature sectors, and has also worked with expert advisers from beyond the Commission. The lead author sits on this Commission. The SIGC works across four themes: Inclusive Economy, Sustainable Transport, Sustainable Land Use, and Net Zero. For each of these themes the SIGC has developed an evidence base for Cheshire and Warrington's current position, a vision representing where the Commission believes the sub-region should aim to be and a set of recommended actions to achieve these visions in a report published in 2022[68].

Perhaps most importantly for the purposes of this paper, an inclusivity assessment (or Inclusivity Toolkit), was produced by the SIGC to ensure that all environmental sustainability actions in the 2022 report were assessed for impact on marginalised communities across the sub-region. This toolkit was expanded from existing EqIA templates broadening application beyond the public sector and the protected characteristics to include socio-economic status and other marginalised communities. This Inclusivity Toolkit was designed for internal use by the SIGC, and a process of action learning followed which clearly indicated a need for further research to provide an evidence base

[66] See Tony Bovaird, 'Beyond Engagement and Participation: User and Community Co-production of Public Services' (2007) 67(5) Public Administration Review 846.

[67] See Elizabeth Sanders and Pieter Stappers, 'Co-creation and the new landscapes of design' (2008) 4(1) CoDesign 5; Jakob Trischler, Timo Dietrich and Sharyn Rundle-Thiele, 'Co-design: from expert- to user-driven ideas in public service design' (2019) 21(11) Public Management Review 1595.

[68] See Sustainable and Inclusive Growth Commission, Towards a Sustainable and Inclusive Cheshire and Warrington: Final Report (Cheshire and Warrington Local Enterprise Partnership 2022).

for refinement and enable broader application beyond the specific context. The Inclusive Environments research upon which this paper is based is a direct consequence of the SIGC recommendations around the need for an evidence-based inclusivity assessment framework.

Against this background context and building upon the recommendations of the SIGC, the Inclusive Environments research provided an interdisciplinary multi-layered, qualitative exploration of existing work around EJ across the sub-region of Cheshire and Warrington in England. Data collected from relevant stakeholders and marginalised community voices on experiences of and challenges to mainstreaming inclusivity through environmental sustainability measures and policy was triangulated with the broader EJ context.

Methodology

A systematic and rigorous approach to data collection and analysis across five core phases underpinned the Inclusive Environments research. The methodology and methods were selected to ensure that the voices of marginalised groups were platformed and central to the research process.

Phase 1 involved desk-based landscaping and evidence collation to establish the literature, existing challenges, and good practice around approaches to EJ in environmental sustainability decision making (including across the sub-region). This review focused on analysis, synthesis and theoretical development of the issues with consideration given to publicly accessible information. It sought to identify existing theoretical and limited empirical research in addition to government documentation to, identify and build on connections and gaps and enable the development of the empirical data collection methods at Phase 2.

Phase 2 involved a series of focus groups ('the focus groups') with community groups together with a series of semi-structured interviews ('the interviews') with key stakeholders/decision makers involved with developing and implementing environmental sustainability measures and policy across the sub-region.

Three focus groups were held with community groups representing marginalised voices across the sub-region. Marginalised communities were broadly defined as those communities, people or groups that experience social, political or economic discrimination and/or exclusion. Crucial to the involvement of community groups within this project was the community partnership that has been developed between the researchers and Cheshire West Voluntary Action (CWVA). Together, the researchers and CWVA have developed the Principles for Co-Production[69] as part of the Local Voices project. As a result of the connections made through this project, the researchers worked with CWVA to identify interest groups that represented marginalised groups impacted upon by environmental policies. All those in the focus groups had experience of marginalisation or vulnerability because of a social issue. For the purposes of the Inclusive Environments

[69] See Holly White and Kim Ross, Local Voice Framework Co-production definition and Principles (Cheshire West Voluntary Action and University of Chester 2023).

research, groups who held lived experience of poverty, being a refugee or asylum seeker and living in a rural community were engaged. In addition to their lived experience, the inclusion criteria for focus group participants included their engagement in an interest group in addition to them volunteering to share their views on EJ. Recruitment for the focus groups was based on an opportunistic sample which means that the researchers lacked control over ensuring demographic representation.

Interview participants were largely those with some remit for developing and/or implementing environmental initiatives/policy within their organisation and where an individual had a specific role within that organisation in relation to environmental sustainability at a sub-regional level and indeed in some cases at a global level. Seven individuals engaged with an in-depth interview. These individuals represented both private and public sector organisations as well as representative bodies. Purposive and convenience sampling was used to engage interview participants and utilised the researcher's sub-regional network from the SIGC and beyond.

In Phase 3, a system of 'triangulation' was utilised to produce a more accurate and objective representation of the purpose of the study. Data from the landscaping and evidence collation (Phase 1) were triangulated with data collected from the focus groups and interviews (Phase 2). A system of theoretical sampling was utilised with concepts and themes being derived from the data and driving the next round of data collection[70]. To this end, the data collected from the focus groups were coded and categorised contemporaneously to determine emerging themes. This assisted the development of research questions for the interviews with stakeholders and vice versa. This meant that data collection was alternated with analysis after each focus group and interview. Using this developmental means of collecting data meant that triangulation of the important themes was attempted throughout. Data analysis was ongoing with themes emerging from the data rather than being imposed upon them.

At Phase 3, all data from the Phase 1 evidence collation and Phase 2 focus groups and interviews were triangulated and analysed and used to produce the Inclusive Environments research report[71] and develop a draft proposed framework for EJ for decision makers across the sub-region (the Environmental Justice Framework)[72].

A system of co-production was seen as central to developing the research methodology and that marginalised communities identified as potentially most impacted from the environmental crisis and decision making should inform the development of sub-regional solutions. Therefore, at Phase 4 a series of four workshops with community groups and stakeholders with academic, professional or public interest in EJ and equality were held across the sub-region of Cheshire, Warrington and Derbyshire in England. In the workshops, the learning from the previous phases was shared

[70] See Anselm Strauss and Juliet Corbin, Basics of qualitative research: techniques and procedures for developing grounded theory (3rd edition) (Sage 2008).

[71] See Chantal Davies, Holly White, Kim Ross and Eghosa Ekhator, Inclusive Environments: Designing a Framework for Environmental Justice (Sustainable and Inclusive Growth Commission 2024).

[72] See Chantal Davies, Holly White, Kim Ross and Eghosa Ekhator, Environmental Justice Framework (Sustainable and Inclusive Growth Commission 2024).

alongside the draft proposed Environmental Justice Framework. At Phase 5, data from Phase 4 was used to modify the draft Framework to ensure it reflected the knowledge generated in workshops.

Ethical approval was vital to ensure appropriate conduct of the research and since the research centred on:

- the challenges faced by those from marginalised and economically deprived communities in relation to environmental policy; and
- a lack of stakeholder understanding as to how to mitigate these challenges and establish a nexus with community voices to provide solutions to ensure inclusive environmental sustainability policy, human participation was necessary to ensure that this data could be collected.

All participants engaged voluntarily in the research and were provided with a participation information sheet with consent implied from involvement. It was recognised that the focus groups could involve discussing potentially sensitive topics surrounding the experiences of marginalised communities, and therefore it was made clear that participants could withdraw from the focus group at any time and their anonymity was guaranteed in any future publication.

Given the project's focus on collaboration with vulnerable marginalised groups, including those in poverty, it was necessary to consider how reflecting on their lived or living experience may cause distress and require sensitivity. The authors have extensive experience of co-production with vulnerable groups, and charities including data collection and management processes to promote and protect dignity. In addition, through the participant information sheet, participants were informed about potential risks, the right to take a break during events, the right to leave the focus group at any time, and with a list of organisations offering support with mental wellbeing. Personal reflections on exclusion and injustice were given on a voluntary basis, and the focus was on shared experience and perceptions.

Since focus group participants might feel inconvenienced by the project's demands on their time, data collection was designed to minimise additional requirements on community voices. Vouchers were provided to focus group participants as a recognition of their contribution.

The Inclusive Environments Research findings

Whilst the Inclusive Environments research explored broader issues around understanding and obstacles in relation to environmental sustainability, this paper focuses on the data collected as an evidence base to develop an EJ framework. Therefore, the following is a summary of findings specifically around this element of the research. Wider findings can be accessed via the full Inclusive Environments report[73].

[73] See Chantal Davies, Holly White, Kim Ross and Eghosa Ekhator, Inclusive Environments: Designing a Framework for Environmental Justice (Sustainable and Inclusive Growth Commission 2024).

The term 'environmental sustainability' is a broad and fluid term with no standard accepted definition[74]. Most research participants described activity they perceived to exemplify ES rather than seeking to define it as a concept. Providing examples of complex fluid terms in research is not unusual[75]. Indeed, the necessary lack of a definition may be one of the difficulties faced in bridging the gap in understanding around the ES agenda[76]. Some also focused on sustainability beyond the environmental focus and noted the need to apply an intersectional lens on economic, social, and environmental sustainability. This need to define sustainability more broadly by considering the SDGs is supported through the literature and global activity and policy. Whilst the SDGs were not referenced by participants in the response to a request to define ES, it was potentially in the minds of those recognising the need to consider sustainability more broadly[77]. Most perceived challenges to ES, and in line with the literature[78], climate change was considered a dominant personal and organisational challenge. It was recognised that the media had ensured focus on the climate crisis and that other challenges to ES were less well understood and therefore less likely to have mitigation responses in place. However, in line with the wider literature[79], the climate change challenge was also perceived to be too big and distant an issue for most people to address resulting in personal detachment from accountability.

Some participants felt that concern regarding the climate emergency was often transient and soon dissipated after extreme climate events with little focus on long-term

[74] See Carlos Ruggerio, Sustainability and sustainable development: A review of principles and definitions (2021) 786 Science of the Total Environment.

[75] See Chantal Davies, Equality at Work? Positive action in gender segregated apprenticeships (Young Women's Trust 2018); Chantal Davies, Exploring positive action as a tool to address under-representation in apprenticeships (Equality and Human Rights Commission 2019).

[76] See John Morelli, 'Environmental Sustainability: A definition for Environmental Professionals' (2011) 1(2) Journal of Environmental Sustainability; Carlos Ruggerio, Sustainability and sustainable development: A review of principles and definitions (2021) 786 Science of the Total Environment.

[77] See Sumudu Atapattu, Carmen Gonzalez and Sara Seck, 'Intersections of environmental justice and sustainable development: framing the issues' in Sumudu Atapattu, Carmen Gonzalez and Sara Seck (eds), The Cambridge Handbook of Environmental Justice and Sustainable Development (Cambridge University Press 2021); Adrian Martin, Teresa Armijos, Brendan Coolsaet, Neil Dawson, Gareth Edwards and Roger Few, 'Environmental Justice and Transformations to Sustainability' (2020) 62(6) Environment: Science and Policy for Sustainable Development 19; Mary Menton, Carolos Larrea, Sara Latorre, Joan Martinez-Alier, Mika Peck, Leah Temper and Mariana Walter, 'Environmental justice and the SDGs: from synergies to gaps and contradictions' (2020) 15 Sustainability Science 1621.

[78] See Katharine Knox, 'Climate justice in the UK: reconciling climate change and equity issues in policy and practice in a developed country context' in Tahseen Jafry Routledge Handbook of Climate Justice (Routledge 2018); Eurig Scandrett, 'Climate justice: contested discourse and social transformation' (2016) 8(4) International Journal of Climate Change Strategies and Management 477; Aleksandra Kazmierczak, 'Climate Injustice in a Post-industrial City: The Case of Greater Manchester, UK' in Walter Filho (ed.) Innovation in Climate Change Adaptation. Climate Change Management (Springer 2016).

[79] See Heather Campbell, 'Is the Issue of Climate Change too Big for Spatial Planning?' (2007) 7 Planning Theory & Practice 201; Christopher Aitken, Ralph Chapman and John McClure, 'Climate change, powerlessness and the commons dilemma: Assessing New Zealanders' preparedness to act (2011) 21(2) Global Environmental Change 752.

consequences. Whilst the literature[80] had previously largely supported the view that perceiving climate change in a 'psychologically distant' manner led to a lack of support for mitigation and adaptive action, in recent studies there is a suggestion that psychological proximity or distance does not always lead to more or less concern about climate change action[81]. Similarly, there was a perceived lack of understanding of the wider consequences of the climate crisis in relation to social, health and economic considerations. Consequently, this distancing, transient focus, and lack of understanding was considered to have led to an unwillingness or inability of society to adapt and make the changes necessary to address the environmental emergency at a global and local level. Added to this, and despite studies suggesting an increasing focus on the business case for implementing ES measures[82], was a perceived reticence or inability of the public and private sector to meet the additional financial cost of ES action.

Similarly, the socio-economic limitations on the ability of individuals to take personal responsibility was a concern and some suggested the need for financial or other incentivisation to support individual ES action. Scholarship highlights the need to incentivize people to mitigate environmental issues via an appropriate consideration of monetary incentives[83] and social incentives[84]. However, the literature does caution that monetary policies may not be sustainable in the long run[85] and may not change long term behaviour if the incentive is withdrawn[86]. It was also recognised in line with the literature[87], that there were limitations other than financial ones which could prevent individuals engaging with ES measures.

[80] See Ben Newell, Rachel McDonald, Marilynn Brewer and Brett Hayes, 'The psychology of environmental decisions' (2014) 39 Annual Review of Environment and Resources 443; Elke Weber, 'What shapes perceptions of climate change?' (2010) 1(3) Wiley Interdisciplinary Reviews: Climate Change 332; Yaacov Trope and Nira Liberman, 'Construal-level theory of psychological distance' (2010) 117 Psychological Review 440.

[81] See Rachel McDonald, Hui Yi Chai and Ben Newell, 'Personal experience and the 'psychological distance' of climate change: An integrative review' (2015) 44 Journal of Environmental Psychology 109; Anne van Valkengoed, Linda Steg and Goda Perlaviciute, 'The psychological distance of climate change is overestimated' (2023) 6(4) One Earth 362.

[82] See Andrea Revell and Robert Blackburn, 'The business case for sustainability? An examination of small firms in the UK's construction and restaurant sectors' (2015) 16(6) Business Strategy and the Environment 404; Jean-Marie Courrent and Waleed Omri, 'Closing the Gap Between Stakeholder Pressure and SME Owner-Managers' Commitment to Sustainability: Does the Business Case Logic Matter?' (2022) 30(4) Journal of Enterprising Culture 401.

[83] See Mikael Elinder, Sebastian Escobar and Ingel Petre, 'Consequences of a price incentive on free riding and electric energy consumption' (2017) 114(12) Proceedings of the National Academy of Sciences 3091.

[84] See Wokje Abrahamse and Linda Steg, 'Social influence approaches to encourage resource conservation: A meta-analysis' (2013) 23(6) Global Environmental Change 1173; Phu Nguyen-Van, Anne Stenger and Tuyen Tiet, 'Social incentive factors in interventions promoting sustainable behaviors: A meta-analysis' (2021) 16(12) PLoS One.

[85] See Mathieu Lefebvre and Anne Stenger, 'Short- & long-term effects of monetary and non-monetary incentives to cooperate in public good games: An experiment' (2020) 15(1) PLoS One.

[86] See Lisa Zaval, 'Behavioural Science: Culture and climate action' (2016) 6(12) Nature Climate Change 1061.

[87] See Jamiu Dauda and Saheed Ajayi, 'Understanding the impediments to sustainable structural retrofit of existing buildings in the UK' (2022) 60 Journal of Building Engineering.

A common theme was a perceived lack of local government action on environmental issues together with apparent failings in communication and engagement with impacted communities. This was considered to have led to decreased confidence in environmental decision making and community disengagement with environmental issues. This lack of confidence in the ability of decision makers to appropriately address the concerns of local communities regarding environmental issues alongside a perceived lack of communication between decision makers and the community is supported by emerging discourse[88].

Supported by wider studies in this area[89] was stakeholder awareness of the impact that specific marginalised communities face in relation to the environmental crisis and environmental sustainability measures. During a cost-of living crisis and other demands on public spending, it was perceived there is a difficult balance to make when investing in ES. This may involve further disadvantage for those already socioeconomically disadvantaged. Some groups were perceived to have greater 'adaptive capacity' to respond to the effects of the climate emergency and that there is a need to develop this capacity for vulnerable groups. This required not only a financial response but also a recognition of the need to develop social and cultural capacity for marginalised communities. This feeds into a rapidly growing body of research in this area around adaptation and building resilience[90]. It was suggested that decision makers need to work with communities to develop resilience to mitigate environmental impacts considering particular vulnerabilities. Participants referenced specific vulnerabilities in relation to ES measures including income-based inequities, isolated and older communities, disabled people and those from minority ethnic groups. Transport was a common theme, with participants expressing concern that EV policy had the potential to have disparate impacts on marginalised communities particularly where focus on such policy was at the cost of supporting environmentally sustainable accessible local transport. Studies support the concern that

[88] See Fiona Henderson, Artur Steiner, Jane Farmer and Geoff Whittam, 'Challenges of community engagement in a rural area: the impact of flood protection and policy' (2020) 73 Journal of Rural Studies 225; Sanna Markkanen and Annela Anger-Kraavi, 'Social impacts of climate change mitigation policies and their implications for inequality' (2019) 19(7) Climate Policy 827; David Schlosberg and Lisette Collins, 'From environmental to climate justice: climate change and the discourse of environmental justice' (2014) May/June WIREs Climate Change 359; Environmental Justice Commission, Environmental Justice Commission Report. Report (IPPR 2021).

[89] See Katharine Knox, 'Climate justice in the UK: reconciling climate change and equity issues in policy and practice in a developed country context' in Tahseen Jafry Routledge Handbook of Climate Justice (Routledge 2018); David Schlosberg and Lisette Collins, 'From environmental to climate justice: climate change and the discourse of environmental justice' (2014) May/June WIREs Climate Change 359; Eurig Scandrett, 'Climate justice: contested discourse and social transformation' (2016) 8(4) International Journal of Climate Change Strategies and Management 477; Aleksandra Kazmierczak, 'Climate Injustice in a Post-industrial City: The Case of Greater Manchester, UK' in Walter Filho (ed.) Innovation in Climate Change Adaptation. Climate Change Management (Springer 2016).

[90] See A.R.Siders, 'Adaptive capacity to climate change: A synthesis of concepts, methods, and findings in a fragmented field' (2019) 10(3) WIREs Climate Change; Michele Barnes, Peng Wang, Joshua Cinner, Nicholas Graham, Angela Guerrero, Lorien Jasny, Jaceueline Lau, Sarah Sutcliffe and Jessica Zamboarain-Mason, 'Social determinants of adaptive and transformative responses to climate change' (2020) 10 Nature Climate Change 823.

EV policy has disparate impacts on marginalised communities[91]. Equally, the literature supports a growing recognition that public transport availability is most likely to impact the opportunities and employment of low-income people[92].

Whilst participants were aware of, and could largely provide, examples if not definitions of environmental sustainability, the term 'environmental justice' was less well understood although, participants had recognised that societal inequalities exist around the impact of environmental challenges and environmental sustainability decision making. Supporting the literature[93], the few participants who had an awareness had only previously linked it to global rather than local activity and issues.

Importantly for the purposes of this paper, participants were encouraged to explore proposals for how to develop environmentally just approaches to ES decision making. Many participants recognised the need for greater community engagement by ES decision makers with one summarising *'you shouldn't do things to people…you should do things with people.'* [Derek]

A person-centred rather than a 'tick box' approach to developing ES measures was suggested with community engagement leading the decision-making process rather than being an afterthought. This people centred approach in response to the climate and nature crisis was also at the heart of the recommendations made by the Environmental Justice Commission report[94]. In line with the literature[95], it was also suggested that public and private sector organisations seek to develop a greater understanding of 'who' they need to talk to when developing ES measures rather than discussing in an 'echo chamber' lacking in diverse representation and in which marginalised voices were often drowned out.

[91] See Chenlei Xue, Huaguo Zhou, Qunqi Wu and Xueying Wu, 'Impact of Incentive Policies and Other Socio-Economic Factors on Electric Vehicle Market Share: A Panel Data Analysis from the 20 Countries' (2021) 13(5) Sustainability 2928; Scott Witchalls, (2018) How can we tackle the social and economic inequality in the UK when it comes to the cost of charging an electric vehicle [Online] Available at: https://www.stantec.com/uk/ideas/topic/mobility/power-poverty-the-new-paradigm-for-social-and-economic-inequality-of-electric-vehicles [Accessed 22 September 2023]; Gordon Bauer, Chih-Wei Hsu and Nic Lutsey, When might lower-income drivers benefit from electric vehicles? Quantifying the economic equity implications of electric vehicle adoption (International Council on Clean Transportation 2021); Green Alliance, Going electric: how everyone can benefit sooner (Green Alliance 2021).

[92] See Yingling Fan, Andrew Guthrie, and David Levinson, 'Impact of light rail implementation on labor market accessibility: A transportation equity perspective' (2012) 5(3) Journal of Transport and Land Use 28; Yeran Sun and Piyushimita Thakuriah 'Public transport availability inequalities and transport poverty risk across England' (2021) 48(9) Environment and Planning B: Urban Analytics and City Science 2775.

[93] See Katharine Knox, 'Climate justice in the UK: reconciling climate change and equity issues in policy and practice in a developed country context' in Tahseen Jafry Routledge Handbook of Climate Justice (Routledge 2018); Sumudu Atapattu, Carmen Gonzalez and Sara Seck, 'Intersections of environmental justice and sustainable development: framing the issues' in Sumudu Atapattu, Carmen Gonzalez and Sara Seck (eds), The Cambridge Handbook of Environmental Justice and Sustainable Development (Cambridge University Press 2021); Environmental Justice Commission, Environmental Justice Commission Report. Report (IPPR 2021).

[94] See Environmental Justice Commission, Environmental Justice Commission Report. Report (IPPR 2021).

[95] See Anne-Teresa Birthwright, 'Negotiating politics and power: Perspectives on environmental justice from Jamaica's speciality coffee industry' (2023) 189(4) The Geographical Journal 653; Farhana Sultana, 'Critical Climate Justice' (2021) 188(1) The Geographical Journal 188.

> 'We need to make sure that we are talking to the right people.' [Focus Group Participant]
>
> 'The people that turn up are the ones that are already interested…it needs to be much broader.' [TARA]

Equally, it was felt that organisations not only need to develop understanding of 'who' to engage but also 'how' to engage community voices and that guidance and support was needed. It was reported that public sector engagement with community groups was already taking place in relation to some high-level programmes but there was a lack of a consistent approach in relation to ES decision making more generally. Where co-production was used by local government to develop general strategy and inform decision making, it was considered very effective. In line with the literature[96], this community liaison activity and co-production work had provided some clear and important lessons at a local level from which to build. It was perceived that there was far less attempt at community engagement and co-production in relation to ES decision making by the private sector. However, in situations (such as planning) which necessitated this and in relation to global activity, this had often been rolled out very effectively. The literature suggests that across the Global South, there is an emerging recognition that private sector community engagement through Corporate Social Responsibility measures has the potential to contribute to the attainment of several Social Development Goals[97]. Further, recently updated OECD (Organisation for Economic Co-operation and Development) guidelines encourage positive contributions multinational enterprises can make to economic, environmental and social progress[98]. Supported by the literature[99], it was considered that international organisations could use learning from community engagement work on ES in the Global South to inform activity at a localised UK level. Whilst participants perceived much of this private sector activity to lack consistency, it was considered that this could be easily adapted to provide for greater engagement on ES decision making. Participants felt that local government could usefully provide a supporting mechanism to

[96] See Holly White and Kim Ross, Local Voice Framework Co-production definition and Principles (Cheshire West Voluntary Action and University of Chester 2023).

[97] See Emmanuel Kumi and Thomas Yeboah, 'Private sector participation in advancing the Sustainable Development Goals (SDGs) in Ghana: Experiences from the mining and telecommunications sectors' (2020) 7(1) The Extractive Industries and Society 181.

[98] See OECD, OECD Guidelines for Multinational Enterprises on Responsible Business Conduct (The Organisation for Economic Co-operation and Development 2023).

[99] See Liza Griffin, Deena Khalil, Adriana Allen and Cassidy Johnson, 2017. 'Environmental Justice and Resilience in the Urban Global South: An Emerging Agenda' in Adriana Allen, Liza Griffin and Cassidy Johnson (eds) Environmental Justice and Urban Resilience in the Global South (Palgrave Macmillan 2017); Malini Ranganathan and Carolina Balazs, 'Water marginalization at the urban fringe: environmental justice and urban political ecology across the North–South divide' (2015) 36(3) Urban Geography 403.

encourage community engagement. This is supported by emerging studies (particularly from the Global South) which advocate for private/public partnerships in achieving integrated approaches towards community engagement[100]. Equally, it was considered that industry would be far more likely to engage with communities if provided with an easy means of collecting community views.

> 'If you come with the voice and the data…the voices are what really sell it.' [MICHAEL]

Much of the existing research in the UK has focused on frameworks for assessing the impacts of environmental decision making rather than process[101]. Therefore, whilst procedural justice via engagement with marginalised communities was considered by most participants as fundamental, it was also recognised that there needs to be a means of accessing accurate environmental impact data on communities. This would provide a solid evidence base to determine environmental impacts and the impact of proposed ES measures which would then assist in determining which communities need to be engaged in the decision-making process.

> '…there's a huge number of areas where I don't think we know what the impacts are.' [DEREK]

Some participants referenced existing mapping tools providing data in relation to core environmental issues such as flooding and heat vulnerability and felt that it would be possible to map data around disadvantage onto this. However, there was concern that such mapping tools were inconsistent and often lacked sustainable funding to ensure they were maintained and up to date. The use, benefits and pitfalls of such data mapping tools using Geographic Information Systems (GIS) are explored in emerging international and national dialogue[102]. However, much of this work focuses on major issues such as health, flood hazards and heat impacts[103].

Building on this perceived need for mechanisms to ensure procedural and distributive EJ, participants also explored substantive ideas for an EJ framework for ES decision making.

[100] See Bothwell Batidzirai, Philipp Trotter, Aoife Brophy, Susann Stritzke, Alfred Moyo, Peter Twesigye, Akaraseth Puranasamriddhi and Amos Madhlopa, 'Towards people-private-public partnerships: An integrated community engagement model for capturing energy access needs' (2021) 74 Energy Research & Social Science.

[101] See Gordon Walker, 'Environmental justice, impact assessment and the politics of knowledge: The implications of assessing the social distribution of environmental outcomes' (2010) 30(5) Environmental Impact Assessment Review 312; Ryan Holifield, 'Neoliberalism and environmental justice in the United States environmental protection agency: Translating policy into managerial practice in hazardous waste remediation' (2004) 35(3) Geoforum 285.

[102] See Lakshika Kuruppuarachchi, Ashok Kumar and Matthew Franchetti, 'A Comparison of Major Environmental Justice' (2017) 6(1) Environmental Management and Sustainable Development 59; Juliana Maantay, 'Mapping environmental injustices: pitfalls and potential of geographic information systems in assessing environmental health and equity' (2002) 110(2) Environmental Health Perspectives 161.

[103] See Leona Davis and Monica Ramirez-Andreotta, 'Participatory Research for Environmental Justice: A Critical Interpretive Synthesis' (2021) 129(2) Environmental Health Perspectives.

Existing focus on EJ approaches across the sub-region was referenced in relation to public sector activity and particularly use of equality impact assessments (EqIAs) as a means of developing an EJ approach to ES. In line with Walker's appraisal[104], it was considered that EqIAs (if used effectively) could support distributive and procedural justice in ES decision making. It was perceived that whilst EqIAs were already being used by local authorities in relation to high level public programmes, use beyond this was inconsistent. Often, EqIAs were perceived to be of little use in ensuring EJ beyond some limited consultation requirements. Whilst it was felt that EqIAs could be adapted as an effective tool of EJ, it was perceived that it could be too burdensome to engage in such assessment for all ES decision making.

> '…Sometimes….doing too many assessments of project level…I worry that it's a big burden and its' just the quality of them…it always ends up being something that people try and just get past and tick the box…' [DEREK]

Some felt that an EqIA approach could be adapted beyond public sector to private sector ES decision making but that a clear business case would be needed to ensure voluntary engagement and substantial guidance and support would be required.

> '…from a personal point of view [EqIAs in the private sector] makes sense…I think if I put my company hat on…they'd scream at that because of the regulatory burden we're already under' [MICHAEL]

Any such assessment tool should not be overly onerous and particularly for the private sector should be introduced in stages so that the benefits could be clearly seen to encourage compliance.

> 'Rather than be onerous, something that helps us just challenge ourselves I think…' [ALAN]

> 'You have to do it in stages…slow down a bit…talk to them…see what they can do in phases and drive it that way…' [MICHAEL]

Importantly, it was felt that an EJ framework should build on approaches already being taken in higher level decision-making at local authority level and then adapted for private sector use.

> 'I think it's having something embedded within an existing process or practice…' [TARA]

Supporting existing studies[105], a case study approach demonstrating how environmental impacts on marginalised communities had been successfully mitigated was

[104] See Gordon Walker, 'Environmental justice, impact assessment and the politics of knowledge: The implications of assessing the social distribution of environmental outcomes' (2010) 30(5) Environmental Impact Assessment Review 312.

[105] See Environmental Justice Commission, Environmental Justice Commission Report. Report (IPPR 2021).

suggested including demonstration of the benefits as well as negative impacts of ES measures being introduced.

> '…we spend so much time focusing on our negative impacts…but also what are the positive…. what are the positive impacts it's going to have on different groups.' [TARA]

Many participants also called for any such framework approach to be implemented at the design stage of the ES decision making process:

> '…having a kind of tool that will help in the design stage of projects where they're having to factor that in as part of the analysis' [MAEVE]

> 'They need to talk to the communities from the start and take the community with them' [Focus Group Participant]

Designing an environmental justice framework

Based on the findings explored above, the Inclusive Environments research sought to use reflections on EqIA guidance and practice, co-production principles, lessons from the Inclusivity Toolkit implemented by the SIGC, obligations under the PSED together with EJ theory to inform a justice centred approach to environmental sustainability decision making.

Although wider recommendations were made in the full Inclusive Environments report[106], importantly for the purposes of this paper it was recommended that there is a need to develop a public and private sector EJ framework to inform environmental sustainability decision making which could be nationally accessible and potentially adapted for global use. In line with the data collected and to ensure familiarity and coherence with existing public sector processes, it was recommended that this Framework should be underpinned by principles of co-production and existing approaches to EqIAs.

The Inclusive Environments research findings pointed to the need to centre community voices (and particularly marginalised communities) in the ES decision making process. Local government and business were perceived to have a core role to play in supporting socially sensitive ES activity. The data clearly supported the need for public and private sector organisations to develop greater understanding of who to engage and how to engage communities in developing ES measures. Whilst there was a perceived lack of consistency in public and private sector engagement with communities on ES, there was also a sense that where this had taken place it had been successful. Building upon this success and establishing greater trust between communities and the public/private sector was key to ensuring meaningful collaboration. The research findings also pointed to the need to empower marginalised communities through building of knowledge and understanding around ES. Existing community networks and liaison mechanisms such as schools, church groups and

[106] See Chantal Davies, Holly White, Kim Ross and Eghosa Ekhator, Inclusive Environments: Designing a Framework for Environmental Justice (Sustainable and Inclusive Growth Commission 2024).

charities were considered important community engagement resources and a link to accessing marginalised voices. Equally, a means of accessing sustained and accurate environmental impact data on communities is needed. The research findings supported the need for a framework to support environmentally just decision making based on existing mechanisms to promote public and private sector use. For the public sector the development of an adapted EqIA approach was seen as most appropriate to encourage use and build on familiar foundations.

Building upon these Inclusive Environments research findings and wider literature, an Environmental Justice Framework has been developed by the authors[107]. This Framework seeks to reduce inequalities in environmental sustainability development and implementation across the research sub-region and beyond.

In particular, the Framework will assist organisations in identifying the likely positive and negative impacts that ES measures may have on marginalised groups by ensuring that:

- ES measures are planned and developed through early engagement with community voices from the marginalised groups.
- inclusivity is mainstreamed through the planning and development of ES measures.
- wherever possible, consideration is given not just to alleviating detrimental impacts on disadvantaged communities but to advancing equality of opportunity and benefits for marginalised groups in the development, planning and implementation of ES measures.

The Inclusive Environments Research and consequent Environmental Justice Framework[108] is underpinned by principles of co-production and particularly those developed by White and Ross[109] and advocates an 'environmental justice cycle' approach as summarised in Figure 2. Increasingly, the EJ movement is calling for transformative forms of justice that seek to redress inequalities within environmental policy and facilitate marginalised communities to not only benefit from but also shape, implement and evaluate interventions[110]. Discussion of co-production in the context of EJ has not only

[107] See Chantal Davies, Holly White, Kim Ross and Eghosa Ekhator, Environmental Justice Framework (Sustainable and Inclusive Growth Commission 2024).

[108] See Chantal Davies, Holly White, Kim Ross and Eghosa Ekhator, Environmental Justice Framework (Sustainable and Inclusive Growth Commission 2024).

[109] See Holly White and Kim Ross, Local Voice Framework Co-production definition and Principles (Cheshire West Voluntary Action and University of Chester 2024).

[110] See Stuart Lane, N Odoni, Catharina Lanstrom and Neil Ward, 'Doing flood risk science differently: an experiment in radical scientific method' (2011) 36 Transactions of the Institute of British Geographers 15; Bruce Braun, 'From critique to experiment: rethinking political ecology for the anthropocene' in Tom Perreault, Gavin Bridge and James McCarthy (eds), The Routledge Handbook of Political Ecology. (Routledge 2015); Jennifer Rice, Brian Burke and Nik Heynen, 2015. 'Knowing Climate Change, Embodying Climate Praxis: Experiential Knowledge in Southern Appalachia' (2015) 105(2) Annals of the Association of American Geographers 253; Vanessa Watson, 'Co-production and collaboration in planning – The difference' (2014) 15(1) Planning Theory & Practice 62; Beth Perry and Mark Atherton, 'Beyond critique: the value of co-production in realising just cities?' (2017) 22(1) Local Environment 36; Tim Forsyth and Constance McDermott, 'When climate justice goes wrong: maladaptation and deep co-production in transformative environmental science and policy' (2022) 98(1) Political Geography.

sought to address issues of community partnerships in the production of knowledge but also to transform the role of communities in developing plans and achieving more equitable outcomes as well as being part of the governance process[111]. In the Environmental Justice Commission research, participants expressed dissatisfaction at a disconnect between themselves as community members and decision-makers feeling often that decisions had already been made before any consultation[112]. In response to this emerging scholarship and the research findings upon which this paper is based, the Inclusive Environments Environmental Justice Framework has been developed in collaboration with community voices and public/private sector stakeholders. As a means of bridging the nexus between communities and decision makers, it necessitates/ highly recommends the appointment of a person to carry out the role as a 'Lived Experience Lead'. As co-production initiatives develop in private, public and community sectors there is a growing number of people with expertise in co-production practice who can share learnings and advise others and their associated projects on how to co-produce ('a Lived Experience Lead'). A Lived Experience Lead is a person with lived experience of a social issue and experience of co-producing projects. To ensure a co-produced environmentally just approach to ES, this Lived Experience Lead is recommended to co-lead the delivery of each stage of the Framework as set out in Figure 2.

The detailed evidence-based Environmental Justice Framework is intended as a guide and organisations are encouraged to use this to develop their own context driven approaches towards collecting data, assessing and engaging. The Framework will be a dynamic tool, and organisational use will be evaluated to develop this further and provide case studies around good practice.

The Inclusive Environments research was a response to recommendations from the Cheshire and Warrington Sustainable and Inclusive Growth Commission[113]. Equally, the consequent research upon which the Environmental Justice Framework is based has been conducted with participants across this sub-region of England. With a large industrial cluster, Cheshire and Warrington has a high industrial carbon footprint, with CO2 emission per km2 of more than double that of the England and Northwest averages at 1.2 kg per kilometre[114]. Cheshire and Warrington has a strong economy worth £32 billion, but despite, the economic success of the sub-region, 5% of the population lived in the top 10% most deprived places in the country on the index of Multiple Deprivation areas[115]. Whilst the focus has been on the localised context, it is

[111] See Fiadh Tubridy, Mick Lennon and Mark Scott, 'Managed retreat and coastal climate change adaptation: The environmental justice implications and value of a coproduction approach' (2022) 114(3) Land Use Policy.

[112] See Environmental Justice Commission, Environmental Justice Commission Report. Report (IPPR 2021).

[113] See Sustainable and Inclusive Growth Commission, Towards a Sustainable and Inclusive Cheshire and Warrington: Final Report (Cheshire and Warrington Local Enterprise Partnership 2022).

[114] See Enterprise Cheshire & Warrington, Cheshire and Warrington Economic Evidence Base (Enterprise Cheshire & Warrington 2021).

[115] Cheshire and Warrington Local Enterprise Partnership, Building Back Better Together: Supporting Recovery in Cheshire and Warrington (Cheshier and Warrington Local Enterprise Partnership 2021).

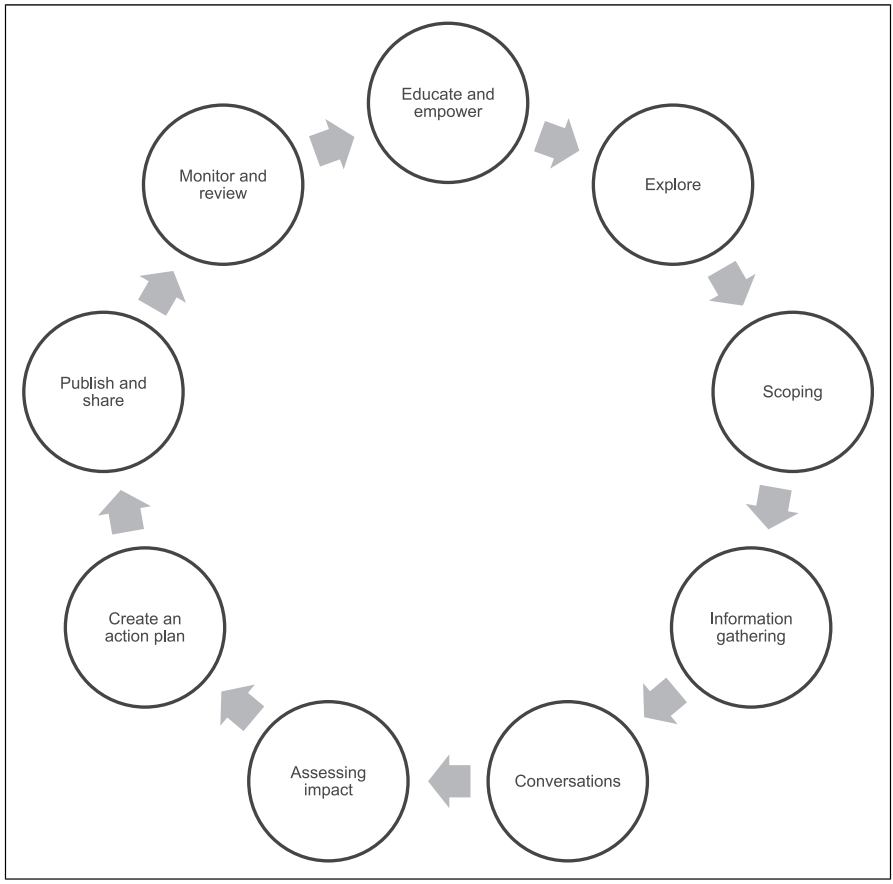

Figure 2. The environmental justice cycle (Davies et al., 2024b).

considered that through triangulation with wider scholarship and a deliberate context driven approach towards developing the Environmental Justice Framework, application is transferable beyond the sub-region and even UK context. Forthcoming work on developing the Framework further will focus on rolling out a series of Capacity Development Workshops aimed at piloting the suggested approach with community groups and stakeholders beyond the sub-regional and domestic context.

Conclusion

Global and national recognition of environmental limits mean that public and private organisations are increasingly aware of the need to act and develop policy in accordance with the Sustainable Development Goals. Environmental sustainability is a fluid and vague concept covering a broad range of activity from addressing flood risk,

to recycling and beyond. There is also an increasing recognition that whilst the climate and broader environmental crisis are an issue of international, national, and local equity, particular communities will differ in their experience of the impacts of and contribution to this crisis. Therefore, organisations not only need to be aware of the impact of the environmental crisis on marginalised groups but also of the impact of environmental sustainability decision making on already disadvantaged communities.

The research detailed in this paper points to a range of environmental challenges that are of concern to both organisations and communities. It has also pointed to some of the obstacles perceived by organisations and communities to addressing these challenges. A central obstacle is the lack of a clear and consistent approach towards assessing and addressing the unequal impact of the environmental crisis on marginalised communities and a lack of engagement by decision makers with community voices when developing environmental sustainability initiatives and policy.

Despite some evidence of ad hoc good practice, the data and wider evidence clearly suggests a need for guidance on environmentally just approaches toward decision making. This paper details an innovative Environmental Justice Framework developed from an equality impact assessment approach and adapted for public and private sector use which can be utilized to address both distributional and procedural justice in environmental decision-making. This builds on approaches already being taken in higher level decision-making at local authority level in England, Scotland and Wales and could be adapted for global use. It is argued that this Framework underpinned by rigorous research and developed from interdisciplinary consideration of EJ theory, the Public Sector Equality Duty under the Equality Act 2010 and principles of co-production provides a fresh accessible means of achieving EJ. It is recognised that this requires adaptation of existing approaches to recognise marginalised communities beyond the listed protected characteristics in UK legislation such as those from low socio-economic groups, asylum seekers and rural communities. It also necessitates adjustment for the private sector and a move away from public sector tokenistic use of EqIAs towards an approach which is underpinned by principles of co-production.

To seek to address environmental inequalities, it is vital that the communities most impacted are listened to by decision makers and are at the centre of providing just environmental solutions that don't further disadvantage them. In other words, decision makers must ensure that EJ is central to the development and implementation of environmental sustainability actions and policy. Thinking beyond the silos of disciplines and placing the community voice at the heart of the process and creating better nexus between inclusive approaches, equality legislation and the environment in a way which meaningfully implements the SDGs is key to addressing climate injustice and environmental inequalities. This paper has advocated such an interdisciplinary approach underpinned by systematic and rigorous research as a significant starting point to commence building an innovative globally accessible framework for environmental justice.

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ORCID iDs

Chantal Davies https://orcid.org/0000-0002-0532-7366
Eghosa Ekhator https://orcid.org/0000-0003-3419-2680
Kim Ross https://orcid.org/0000-0002-8048-2382
Holly White https://orcid.org/0000-0002-9807-8740