INCLUSIVE ENVIRONMENTS: designing a framework for environmental justice

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Executive Summary

1. This research builds on the report and recommendations of the Cheshire and Warrington Sustainable and Inclusive Growth Commission (SIGC) (2022) (Sustainable and Inclusive Growth Commission, 2022) . It seeks to develop an inter-disciplinary Environmental Justice Framework (the Framework) for use by public and private sector decision makers. This aims to ensure inclusivity and environmental justice is mainstreamed throughout the development, implementation, and monitoring of environmental sustainability (ES) policy and actions introduced across the subregion of Cheshire and Warrington. This Framework will seek to reduce inequalities in ES development and implementation and ensure that ES measures are built on inclusive foundations of environmental justice to ensure equity, efficacy, and impact. This research builds upon existing strengths and sub-regional work and addresses identified challenges. It brings together partners from industry, local government, community and voluntary sector, academia, and communities (particularly, marginalised voices).

2. As we move on from COP28 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. This would require more particular focus on distribution, procedure and recognition of marginalised voices (Martin, et al., 2020; Menton, et al., 2020).The Intergovernmental Panel on Climate Change (IPCC) recently reported that urgent action is needed to deal with increasing climate risk. It also recognised that the impact of the crisis disproportionately impacts on already marginalised communities and that any steps to mitigate this crisis need to be implemented fairly and equitably to avoid exacerbating inequalities and to ensure implementation success (Intergovernmental Panel on Climate Change, 2022). This increased focus on environmental inequalities and environmental justice is much needed, both domestically and internationally. More broadly, (Cushing, et al., 2015) suggest that inequality is bad for both the economy and the environment as inequality erodes social cohesion and reduces the willingness to cooperate to protect common resources. However, more recently there is a growing recognition that sustainability policies themselves can increase inequality if not accompanied by broader policy measures to address inequalities (Neumayer, 2011). Proceeding ethically and inclusively means engaging with those concerns in ways that negate them, or at least ameliorate the most negative impacts. 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 (Birthwright, 2022). All possible efforts should be made to hear not only the widest range of voices, but also those voices that can speak from the intersection of different identities (Sultana, 2021). Environmental justice means thinking along extended time horizons, to consider the 'end of life' phase of projects to ensure communities are not left to clean up others' messes (Samarakoon, et al., 2022). In recent years the emergence of dialogue around 'Just Transitions' has emerged from the climate and environmental justice movements and indeed the terms are often used interchangeably and overlap (Grub & Wentworth, 2023). Whilst this research report uses the terminology around 'environmental justice', it is recognised that this inevitably overlaps with dialogue and policy considerations around the UK and global Just Transition agenda. This research has however been framed in terms of 'environmental justice' to provide breadth of focus. It is considered that environmental justice includes both 'climate justice' (focusing on addressing the inequalities resulting from the climate emergency) and 'Just Transitions' (still largely focusing on the decarbonization agenda).

3. A significant level of national work focusing on environmental justice is routed in governmental activity and from 1992, 'environmental equality' was one of the UK government's sustainable development indicators and is now mainstreamed through the SDG indicators. It is also seen by some as integral to the levelling up agenda (Gov.UK, 2021). 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 environmental sustainability conversations (Marino & Ribot, 2012). 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 inequalities depending on contextual factors, policy design and policy implementation. In particular, the risk of negative outcomes is greater in situations involving high levels of poverty and social inequalities and where little action is taken to identify and mitigate potentially adverse side-effects (Markkanen & Anger-Kraavi, 2019). Markkanen and Anger-Kraavi further argue that negative inequality 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. In addition, the best results are achieved when inequality impacts are taken into consideration in all stages of policy making, including policy planning, development and implementation (Markkanen & Anger-Kraavi, 2019).

4. Environmental justice is understood to have diverse meanings from the viewpoints of developed and developing countries (Ako & Olawuyi, 2018; Ekhator & Agbaitoro, 2024). For example, in Africa, environmental justice could be labelled as a concept or idea that mainly involves access to natural resources, while in countries like the US and the UK, it focuses on preserving

the planet's well-being, principally through public participation (Ako, 2009). In the UK, the environment justice concept is geared towards an understanding or appreciation of socio-economic parity (Ekhator & Agbaitoro, 2024; Ako, 2009). In essence, environmental justice has varied meanings, strategies of access, and implications in various contexts or countries (including regions) (Coolsaet, 2020).There have been numerous studies conducted showing the environmental injustices faced by UK citizens and residents, including the archetypical north-south divide and the plethora of injustices affecting the already vulnerable social groups in the country (Ogunbode, et al., 2023). However, 'UK EJ [environmental justice] has been driven top-down, by international agreements' (Mitchell, 2019, p. 8). According to Agyeman (2000, p. 7):

> *'To many people in the UK, environmental justice is quite simply someone else's problem. To them, the terms "environment" and "justice" do not sit easily together. At best, their combination evokes a memory of some distant news report or documentary of how communities of colour and poor communities in the US face a disproportionate toxic risk when compared to the white middle-class communities'.*

5. Hence Agyeman and Evans (Agyeman & Evans, 2004) argue that there is an 'environmental justice paradox' in the UK. This trend has, however, changed in recent times as gradually environmental injustice has been shown to exist in the UK more deeply and frequently than previously presumed. Hence Agyeman (2000) argues that it happens in many ways from disproportionate pollution loadings to fuel poverty, from transportation inequalities to lack of access to countryside because of rural racism, in response to this, calls for greater environmental justice have become louder. This has led to greater policy awareness for environmental justice in the UK.

6. Unlike in the USA, very few laws and institutions specifically tackle environmental injustice in the UK. Some regulatory mechanisms on environmental justice, especially relating to access to environmental justice and public participation in environmental decision-making, are in the UK's environmental legislative framework, including These include the Environment Act 2021 and the Aarhus Convention. The Aarhus Convention came into force on 30 October 2001 and the UK ratified it on 23 February 2005. Public *'participation has long been a central feature of English environmental law, reinforced in recent decades by the Aarhus Convention, and perhaps even more by EU law's insistence on consultation in the implementation of EU environmental law'* (Armeni & Lee, 2021, p. 550). 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'* (ClientEarth, 2022). Even though the UK is a party to the Aarhus Convention, the Convention has not been fully transposed into UK law. This impacts negatively on access to environmental justice.

7. Furthermore, Lee (2023) has argued that the UK Environment Act 2021 has reduced public participation in environmental issues. It is argued that the environmental law and recent changes in this area will have a detrimental impact on progress towards environmental justice. Environmental impact assessments (EIAs) have served as tools to protect the environment in the UK. On the other hand, the recent developments (especially in England) might have negative implications for the environmental impact assessment process. In England, a major post Brexit environmental law development 'concerns the environmental assessments that are required of certain categories of development projects and new infrastructure. There has been an unambiguous decision in England to move away from EU-derived regulations on Environmental Impact Assessment (EIA, mainly for individual projects) and Strategic Environmental Assessment (SEA, for larger developments)' (Baldrock, 2022, p. 7). This is now reflected in the Levelling-up and Regeneration Act (LURA) which became law on 26 October 2023.The LURA 2023 entails the 'replacement of environmental impact assessment (EIA) and strategic environmental assessment (SEA) with a new procedure called environmental outcome reports (EORs)' (Caine, 2023, p. 537). It is too early to assess what impact the LURA will have on the utility of environmental impact assessment particularly as a means of ensuring environmental justice.

8. However, during the LURA's development, many relevant stakeholders criticised its potential negative effects on environmental impact assessment. For example, many environmental groups have argued that the move could significantly damage environmental protection and environmental justice. There was dissatisfaction that the Bill as then drafted would give the secretary of state so-called 'Henry VIII' powers which would allow them to amend or repeal provisions of an Act of Parliament using secondary legislation. This was highly controversial because it could mean that any environmental law could be removed without Parliamentary approval (Caine, 2023, p. 537).

9. Some commentators argue that existing impact assessment tools could and should be better used to mitigate environmental inequalities and promote environmental justice (Connelly & Richardson, 2005; Walker, 2010). They could offer a dual pronged approach to enable greater community and stakeholder participation, thus promoting procedural justice and ensuring the robust and systematic analysis of negative impacts and benefits of environmental policy and measures aimed at achieving distributive justice. However (as above), environmental impact assessments via environmental legislation are arguably an unsatisfactory means to achieve environmental justice. Walker (2010) noted that Equality Impact Assessments (EqIA) could potentially be used in England and Wales to assess the distributive impacts of environmental sustainability measures and policy on marginalised communities. He concluded that there was little evidence of the systematic use of EqIAs to assess impact in environmental decision making. The use of EqIAs is no longer mandatory in England (but still are in Wales and Scotland). The Public Sector Equality Duty (PSED) provides the legislative framework under the Equality Act 2010 for application of EqIAs in relation to the 'protected characteristics' under the EA 2010. However, based on the case law and Equality and Human Rights Commission guidance on the PSED, a robust and

effective approach to environmental justice could be formulated, using robust application of EqIAs in line with emerging co-production methodologies. Importantly an EqIA will usually require an assessment of impact on protected groups as well as consultation. Therefore, this approach could rectify the limitations of the environmental legislation and meet the needs of both distributive and procedural environmental justice.

10. If environmental justice is to evolve as a solution to environmental inequalities in the UK and beyond, then an interdisciplinary approach towards environmental justice solutions that truly work is required. The key is to understand how existing mechanisms can be utilised by the public and private sectors to ensure distributive and procedural justice in relation to environmental issues. 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 data hubs and better collaboration with marginalised communities. Calls for '*a stronger shift towards forms of research that engage with activists, communities, and other actors in ways that help to transform power relations, strengthen their capabilities, and overcome the increasing vulnerabilities to which they are subjected in the face of the current global climate and ecological crisis'* (Martin, et al., 2020, p. 29). Therefore, meaningful dialogue across disciplines, and between the public and private sectors, is required as well as the engagement of community voices to develop appropriate just frameworks for environmental decision making.

11. COP28 and the report of the Environmental Justice Commission (which placed procedural and distributive justice at the centre of a recommended shift in the UK approach to addressing the climate and nature crisis (Environmental Justice Commission, 2021)). Following this, there is a need to ensure that the opportunity to increase focus on environmental inequalities and environmental justice is not missed at a domestic level.

12. Following an extensive review of existing literature, research data was collected via f semi-structured interviews and focus groups that took place from April to July 2023. Most interview participants had some remit for developing and/or implementing environmental initiatives/policy within their organisation at a sub-regional level and indeed in some cases at a global level. Seven individuals were interviewed. They represented both private and public sector organisations as well as representative bodies. In addition, three focus groups were held between June and July 2023. Focus group participants were selected through purposive sampling to ensure that a range of community voices were included. Participants came from potentially marginalised communities across the subregion; they included asylum seekers and immigrants, people living in rural communities, and those with lived or living experience of living in poverty.

13. Interviewees and focus group participants were representative in terms of gender. Information on age, race and disability was not gathered from participants. The organisations represented by interview participants all had some remit and dedicated provision for ES. The participating public sector representatives described organisational sustainability activity around a range of topics, including planning, estate management, waste and recycling, staff

and user provision, education, wellbeing, biodiversity, green space, procurement, external liaison and networking, climate emergency, decarbonization and net zero strategy, transport, housing, local economic development, natural capital etc. Private sector participants similarly described organisational sustainability activity around planning, waste, and recycling, decarbonization, climate change and net zero, transport, distribution, raw materials, packaging, supply etc. All interviewees had experience of networking and collaboration on ES issues beyond their own organisation.

14. The findings of the full report point to several emerging themes that have implications for the development of an Environmental Justice Framework for use by environmental sustainability decision makers at a sub-regional level and beyond. The following summarises the key findings and recommendations for developing a robust Framework which can be piloted and assessed in follow up research.

15. ES is a broad and fluid term for which there is no standard accepted definition. Research participants noted this fluid terminology and most provided descriptions of activity they perceived to exemplify ES rather than seeking to define it as a concept. Some also focused on sustainability beyond the environmental focus and noted the need to apply an intersectional lens towards economic, social, and environmental sustainability. Some participants also sought to define ES in terms of finite resource and the need to develop and grow it within environmental limitations. Those whose role centred on ES activity were more likely to attempt to provide a conceptual definition but ultimately recognised that there was no single accepted approach to this.

16. Most participants expressed perceived challenges to ES, and many referenced the climate crisis linked to the biodiversity crisis as well as the need to transition to a low carbon economy and society. Climate change was perceived as a dominant personal and organisational challenge both globally and locally. 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, was recognised. However, the climate change challenge was also considered too big an issue for most people to address and equally was perceived by many as a distant issue resulting in personal detachment from accountability.

17. 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 consequences. Similarly, there was a lack of understanding of the wider social, health and economic consequences of the climate crisis. Consequently, this distancing, transient focus and lack of understanding had 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 was a perceived reticence or inability of individuals and/or the public and private sectors to meet the additional personal and organisational financial cost of ES action. Focus group participants from marginalised communities were more likely to express micro level challenges to ES (such as local pollution, recycling problems, lack of local green space, poor access

to environmentally sustainable public transport etc). In contrast, interviewees were more likely to focus on macro issues such as climate change and flooding. This disconnect between community and organisational concerns may well explain why ES policy focusing on global climate issues is difficult to implement and achieve local buy in.

18. Focus group participants also referenced the impact of anti-social behaviour as a challenge to ES and focused on the theme of the 'other' creating environmental problems with blame for environmental harm and a lack of action to address the climate emergency often being placed on local and national government and industry. The socio-economic limitations on the ability of individuals to take personal responsibility for environmental sustainability was a concern and some suggested the need for financial or other incentivisation to support individual ES action. 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 had led to decreased confidence in environmental decision making and community disengagement with environmental issues. There was also a perceived lack of communication across different local government departments in this regard.

19. Despite recognised and perceived challenges to ES, participants were also able and willing to provide some excellent exemplars of global, national, and local activity around ES. Some activity could be categorised as environmental justice focusing on ensuring both distributional and procedural justice for marginalised groups in relation to the development and implementation of ES measures.

20. Interviews with core stakeholders showed there was a clear awareness of the specific impact that marginalised communities face in relation to the environmental crisis and implementation of environmental sustainability measures. It was recognised by most interviewees that at a time when there is a cost-of living crisis and other demands on public spending, investing in ES may involve further disadvantage for those already socioeconomically disadvantaged. This was explored in relation to the emerging dialogue around 'adaptive capacity'. It was recognised that some groups have greater adaptive capacity to respond to the effects of the climate emergency and that there is a stronger need to develop this adaptive 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. 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 and the impact on isolated and older communities, disabled people and those from minority ethnic groups. Transport was a common theme with participants perceiving the need for greater focus on environmentally sustainable efficient public transport which had the potential to narrow the economic divide. Equally, there was concern that EV policy had the potential to have disparate impacts on marginalised communities particularly where its focus was at the cost of supporting

accessible transport. It was considered that local government has a core role to play in supporting socially sensitive environmental sustainability decision making but that caution should be exercised to avoid homogenising approaches towards marginalised communities.

21. Whilst participants were aware of and could provide examples (if not definitions) of environmental sustainability, the term ‘environmental justice’ was less well understood. Although, participants had (as above) recognised that societal inequalities exist around the impact of environmental challenges and environmental sustainability decision making, there was little recognition of the specific term environmental justice (EJ). The few participants who had an awareness had only previously linked it to global activity and issues rather than to local and regional activities. A few were able to frame their awareness of EJ in terms of distribution disparity. Only one participant explored EJ in terms of the need to ensure fair process in the design and implementation of ES measures.

22. Participants were encouraged to explore proposals for how to develop robust and effective EJ measures in relation to ES decision making. Many participants recognised the need for greater community engagement by ES decision makers. A person-centred method was suggested rather than a ‘tick box’ approach to developing ES measures with community engagement leading the decision-making process rather than being an afterthought. It was also suggested that public and private sector organisations seek to develop a greater understanding of ‘who’ they need to talk to when seeking to develop ES measures rather than discussing in an ‘echo chamber’ lacking in diverse representation and in which marginalised voices are often drowned out. Equally, organisations not only needed to develop understanding of ‘who’ to engage but also ‘how’ to engage community voices and that robust guidance and support was needed in this regard. There was some recognition that public sector engagement with community groups was already taking place in relation to some high-level public programmes but f a consistent approach in relation to ES decision making more generally was lacking. Where co-production was used by local government to develop strategy and inform decision making, it was considered very effective, but there was far less attempt at community engagement in relation to ES decision making by the private sector. However, in situations (such as planning) which required this and in relation to global activity, this had often been rolled out very effectively. Several examples of community engagement by industry in relation to charitable activities and the development of ‘liaison groups’ were provided. Whilst much of this private sector activity lacked consistency and was ad hoc, it was considered that this could be easily adapted to provide for greater community engagement on ES decision making.

23. Parish Councils were also referenced as a means of ensuring community engagement with local government and the private sector around environmental sustainability. Whilst Parish Councils are already being used by local government, it was recognised that the links and communication are not sufficiently developed around ES measures. Equally, it was felt that Parish Councils (as currently formulated) were not sufficiently representative of the

communities within which they exist and are under resourced and informed as a means of ensuring procedural EJ. Added to this is the need to develop greater trust between the community and the public and private sector before proper engagement can be achieved.

24. Once again, the need to resource and support the building of community knowledge and resilience around ES was referenced as a way to mitigate the impact on marginalised communities of the environmental crisis. To ensure meaningful co-production in ES decision making, community knowledge and understanding to empower marginalised communities to work with the public and private sector was required. One participant felt that industry and local government could learn from EJ activity and engagement with communities in the 'global south' in this regard.

25. Existing networks and liaison mechanisms such as schools, church groups and charities were considered as an important community engagement resource and important link to accessing marginalised voices. Many participants however, recognised that those from marginalised communities and particularly those from low socio-economic groups were likely to be the most time poor and therefore less able to participate. Therefore, to ensure representative community engagement, participation must be appropriately recognised and remunerated. Similarly, access to community voices should be via existing mechanisms to avoid additional obligations. However, caution was urged to ensure that communities would not feel obligated or discouraged from engaging in community support activities by feeling forced into community engagement activities on ES.

26. Private sector participants felt that local government could provide a supporting mechanism to engage in community engagement and that private organisations would be far more likely to engage with communities if provided with an easy means of collecting community views. Whilst procedural justice via engagement with marginalised communities was considered by most participants as fundamental, the need to access accurate environmental impact data on communities was also recognised. 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 needed to be engaged in the decision-making process.

27. Some participants referenced existing environmental mapping tools that had previously been developed at a regional level. Others referred to local mapping data which already existed in relation to core environmental issues such as flooding and heat vulnerability and felt that it would be possible to map data re 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.

28. Considering this recognition of the need for mechanisms to ensure procedural and distributive EJ, participants also explored ideas for an EJ framework for action on ES decision making. Existing focus on EJ across the subregion was in relation to the public sector. Therefore, the use of Equality Impact Assessments (EqIAs) as a means of developing an EJ approach to ES was

noted. EqIAs (if used effectively) could support distributive and procedural justice in ES decision making. EqIAs are not mandatory in England, and it was reported that whilst they were being used by local authorities in relation to high level public programmes, use beyond this was ad hoc and inconsistent. Equally, environmental impact assessments were of little use in ensuring EJ beyond some limited consultation requirements. Some participants felt that EqIAs could be better used to ensure EJ in relation to ES decision making across the public sector. However, it was too burdensome to engage an EqIA for all ES decision making. Some participants felt that an EqIA type approach might benefit private sector ES decision making but a clear business case to ensure voluntary engagement in this regard and substantial guidance and support would be required. 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. A metrics-based system to demonstrate tangible impact was considered useful for the private sector with a financial bottom-line baseline provided to demonstrate the cost benefit of engaging with and assessing the impact on marginalised communities of ES actions. A case study approach demonstrating how environmental impacts on marginalised communities had been successfully mitigated was perceived to be useful for both the private and public sectors, this should demonstrate the benefits as well as the disadvantages of ES measures. Many participants also called for any such framework to be implemented at the design stage of the ES decision making process.

29. The data has demonstrated that (despite some evidence of good practice) tf understanding of, and consistency in ensuring an environmental justice-based approach to decision making around environmental sustainability is lacking. This report argues that used properly, there is significant potential for a tool developed from an EqIA framework to be utilized to address both distributional and procedural justice in environmental decision-making. This would build on approaches already being taken in higher level decision-making in local authorities and could be adapted for private sector use. It is argued that an approach based on guidance developed from the public sector duty under the Equality Act 2010 would ensure a two-pronged simple solution to EJ. It would also require adaptation to recognise marginalised communities beyond the listed protected characteristics such as those from low socio-economic groups, asylum seekers and rural communities.

30. Based on the existing literature and analysis set out in the full report, pointers for action are:

31. *General*:

    a. There is a need to develop a public and private sector Environmental Justice Framework to inform environmental sustainability decision making at a sub-regional/regional level. To ensure familiarity and coherence with existing public sector processes, this Framework should be underpinned by principles of co-production and existing approaches to Equality Impact Assessments and the Public Sector Equality Duty (pursuant to section 149 Equality Act 2010). This Framework will provide a holistic environmental justice approach to each stage of the

environmental sustainability decision making process. The Community Engagement Hub and data from the Environmental Justice Mapping Tool (below) could be used to draw community voice and impact data together under this Framework. This Framework can be supported by case studies and wider support promoting good practice guidance in this area. This Framework should:

i. Provide an accessible resource for the public and private sector.

ii. Not be excessively onerous and encourage contextual responses including recognising use of existing networks.

iii. Be based on clearly defined co-production principles.

iv. Inform and support the business case.

v. Recognise the value of community participant time via appropriate compensation mechanisms.

32. Public and private sector organisations would benefit from an accessible and maintained Environmental Justice Mapping Tool. This would assess the impact of the environmental crisis on distinct marginalised groups at a sub-regional/regional level and assist with the assessment of impact as set out in the proposed Environmental Justice Framework. Initially such a tool could be developed from existing data (for example local data around flooding and heat risk) and enable data collected by both public and private sectors as part of an impact assessment process set out within the Environmental Justice Framework to be shared. This mapping tool would also benefit from inclusion of data on the impact of environmental measures on marginalised communities. Existing tools could be used as a basis for further exploration. It is proposed that this could be co-funded and maintained in partnership by local government and industry.

33. Public and private sector organisations would benefit from a Community Engagement Hub at a sub-regional/regional level. Its focus would be on environmental sustainability to assist public and private sector organisations with consultation and co-production as set out in the proposed Environmental Justice Framework. Existing links with groups such as Parish Councils and liaison networks could be used as an initial base to establish an appropriate network. Community participants must be compensated and there must be a broad representation of community voices to ensure representation of marginalised communities. It is proposed that this could be co-funded and maintained in partnership by local government and industry.

34. *Local Government*: The data points to significant public sector gaps in environmentally just approaches to environmental sustainability decision making. Many of the following pointers for action will be addressed by the proposed Environmental Justice Framework. Therefore, at a sub-regional and regional level it is recommended that local government:

a. Promote and ensure greater public sector understanding of environmental justice and recognition of environmental inequalities.

b. Seek to develop more robust links and communication between local government and marginalised communities on environmental sustainability challenges. This communication should focus on ensuring engagement with diverse and marginalised communities including but not limited to those groups currently protected by the Equality Act 2010 and those from socio-economically disadvantaged groups. Care should be taken to avoid homogenising approaches towards marginalised communities.

c. Develop strategies to address a perceived lack of joined up thinking and discussion across local government departments on environmental sustainability particularly focusing on developing synergies around EDI, environmental, planning, and economic development.

d. Develop dissemination strategies to gather and share knowledge and information around environmental sustainability focusing on ensuring that marginalised communities can share and access this knowledge and information.

e. Develop approaches towards building community knowledge and understanding of environmental sustainability to empower marginalised communities to be able to work with the public and private sectors to build equitable and appropriate environmental solutions.

f. Further develop adaptive capacity and resilience to mitigate environmental impacts by working more closely and effectively with marginalised communities.

g. Develop strategies for collecting data on the impact of environmental issues and environmental sustainability measures on marginalised communities including a particular focus on intersectional disadvantage and socio-economic impact.

h. Develop strategies for ensuring community engagement and co-production when developing environmental sustainability measures at every stage of the decision-making process.

i. Develop strategies for ensuring marginalised communities have consistent meaningful opportunities to express environmental concerns to local government and ensure this feed into public sector prioritisation when planning, developing, and implementing environmental sustainability measures.

j. Work with local industry and the private sector to support environmentally just approaches to environmental sustainability decision making.

35. *Private sector (regional/sub-regional):* Whilst pockets of good practice around community engagement in the private sector exist, there is a lack of awareness of environmental justice. Equally, there is evidence that for international organisations, the excellent practice (for example in the global south) is not replicated or considered at a domestic level. Many of the following pointers for action will be addressed by the proposed Environmental Justice Framework. Therefore, at a sub-regional and regional level it is recommended that the private sector:

    a. Promote and ensure greater organisational understanding of environmental justice and recognition of environmental inequalities.

    b. Develop strategies for ensuring community engagement and co-production when developing environmental sustainability measures at every stage of the decision-making process.

    c. Develop strategies for collecting data on the impact of environmental issues and environmental sustainability measures on marginalised communities including a particular focus on intersectional disadvantage and socio-economic impact.

    d. Develop and build an understanding of the business case supporting the importance of environmental justice in relation to environmental sustainability decision making.

    e. Recognise the transferable learning and understanding of global community engagement on environmental sustainability decision making and seek to apply this to domestic contexts and activity.

    f. Work with local government to support environmentally just approaches to environmental sustainability decision making.

36. *National pointers for action:* The data collected, and the focus of this research has been on the sub-regional context of Cheshire and Warrington. However, these findings are transferable and useful beyond the subregion and could apply to local government and private sector organisations across the UK. More general pointers for action at a macro level include recommendations that:

    a. Greater focus is placed on environmental justice as a core governmental policy priority. This includes a need for greater national understanding of environmental inequalities and consideration of environmental justice mechanisms to seek to mitigate these inequalities.

    b. More focus is placed on joined up thinking across government departments on environmental inequalities and environmental justice.

    c. Consideration is given to developing legislation requiring environmentally just approaches to environmental sustainability

decision making to mitigate against the limitations of environmental impact assessments.

d. Consideration is given to developing and sustaining a national Environmental Justice Mapping Tool for use by the public and private sector.

e. Consideration is given to supporting guidance on public and private sector approaches to environmental sustainability decision making using the Environmental Justice Framework as a template approach.

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Introduction

Description and Rationale

This research builds on the recommendations and existing work of the Cheshire and Warrington Sustainable and Inclusive Growth Commission (SIGC) in its 2022 report (Sustainable and Inclusive Growth Commission, 2022). It seeks to develop an inter-disciplinary Environmental Justice Framework (the 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 (ES) policy and actions introduced across the subregion of Cheshire and Warrington. This Framework will seek to reduce inequalities in ES development and implementation and ensure that ES measures are built on inclusive foundations of environmental justice to ensure equity, efficacy, and impact. This research builds upon existing strengths and sub-regional work and addresses identified challenges, bringing together partners from industry, local government, community and voluntary sector, academia, and communities (particularly, marginalised voices).

Objectives

The principal objectives of this research are to:

- Progress the recommendations in the SIGC report in partnership with relevant stakeholders, people with lived or living experience of marginalisation and socioeconomic disadvantage and community organisations seeking to mainstream inclusivity through environmental sustainability policy and initiatives.

- Build diverse partnerships with community representatives and provide a nexus between communities and environmental sustainability decisionmakers to enable marginalised voices to input into the development, implementation and monitoring of environmental sustainability policy and initiatives.

- Identify the challenges to environmental justice and mainstreaming inclusivity through a review of the multi-disciplinary literature and a mapping of local data and landscape evidence analysis across the subregion of Cheshire and Warrington.

- Develop a co-produced evidence-based framework for environmental justice (‘the Environmental Justice Framework’) at a sub-regional/regional level for use by private and public sector environmental sustainability decision makers.

- To provide an evidence base to develop proposals for further funding to develop the Environmental Justice Framework at a sub-regional, regional and

national level, a sustainable partnership hub and programme of activity to maintain stakeholder relationships and partnerships to deliver solutions to environmental justice challenges across the subregion of Cheshire and Warrington and beyond.

Research questions

A critical analysis of the literature in this area pointed to several foundational research questions. To support the aims and objectives of this research, we asked the following research questions:

a) What are the core environmental challenges perceived by decision makers and marginalised communities across the subregion of Cheshire and Warrington?

b) To what extent is environmental justice implemented in sub-regional decision making around environmental sustainability?

c) What are the barriers to environmental justice in environmental sustainability decision making across the subregion?

d) What suggestions do marginalised communities and decision makers across the subregion have to ensure environmental justice in environmental sustainability decision making across the subregion?

e) How can the lessons from national and global literature on inter-disciplinary approaches to environmental sustainability and justice inform an effective and robust approach towards environmental sustainability decision making across the subregion?

f) How can the above evidence inform the development of a robust and effective co-produced framework for environmental justice in relation to environmental sustainability decision making (the Environmental Justice Framework) across the subregion and beyond?

The researchers

Principal Investigator: Professor Chantal Davies (University of Chester)

After graduating with a Law degree from Oxford University, Chantal Davies qualified as a solicitor with Eversheds in Cardiff specialising in Employment, Human Rights and Discrimination Law. In 1998, she moved to work as a solicitor for the Equal Opportunities Commission (EOC) in Manchester heading up a department tackling strategic and wider enforcement of the gender equality legislation. Chantal is now professor of Law, Equality and Diversity in the School of Law at the University of Chester. She has also developed and is Director of the Forum for Research into Equality and Diversity. Past research focuses on the experiences of minority ethnic students within HE and the use of positive action by organisations in the UK. Chantal has also completed a funded project looking at the gendered obstacles to research activity faced by academics in the UK. More recently Chantal has been funded by the Young Women's Trust and the Equality and Human Rights Commission to research the use of positive action in apprenticeships. Chantal has also worked with the Higher

Education Authority in Ireland to roll out a groundbreaking positive action initiative aimed at increasing female representation within professorships. She has sat on the board of Cheshire Halton and Warrington Race and Equality Centre and the Equality Challenge Unit and in this latter role worked with them to develop institutional confidence in developing positive action initiatives within higher education. Chantal also sat on the review panel for the national Subject Benchmark Statement for Law. Chantal currently sits on the Sustainable and Inclusive Growth Commission and is Co Vice Chair of the Law Society's Women's Law Division Committee. She also sits on AdvanceHE's Equality Diversity and Inclusion Committee.

Chantal leads the Human Rights and Discrimination law modules at an undergraduate level and supervises several students in their PhD study.

Co-investigator: Dr Holly White (University of Chester)

Dr Holly White is the Head of the Social and Political Science Division and is a Senior Lecturer in Criminology at the University of Chester. Holly's primary areas of interest and expertise are public social science, challenging social harm and injustice with a particular focus on poverty, and universities making positive contributions to local communities and region. Holly was a trustee of Cheshire West Voluntary Action with responsibilities for research and strategic partnerships. Holly was also a Board member of the Trussell Trust Changing Minds on Poverty Board, utilising her research and voluntary experience to inform the organisation's national strategy on public sense-making of poverty. Holly holds a PhD in Social Science from Edge Hill University. Holly recently produced 'Principles for Co-Production' which are being piloted by local third sector organisations.

Co-investigator: Dr Kim Ross (University of Chester)

Dr Kim Ross is Deputy Head of the Social and Political Science Division and a Senior Lecturer in Criminology. Kim's research interests include public social science, harm reduction and health risk behaviours in addition to the development of creative research methods. Before joining the University of Chester, Kim was a Senior Researcher in the Public Health Institute at Liverpool John Moores University where she specialized in research with vulnerable communities. Kim holds a PhD in Sociology from the University of Liverpool. Kim recently led a research exhibition that was co-produced with research partners from the West Cheshire Poverty Truth Commission which presented research findings that explored the lived experience of poverty to a public audience. Kim also collaborated with Dr White in producing the 'Principles for Co-Production'.

Co-investigator: Dr Eghosa Ekhator (University of Derby)

Dr Eghosa Ekhator is an Associate Professor in law at the University of Derby, United Kingdom. His main research areas include International Environmental Law, African International Legal History, and Natural Resources Governance. Dr Ekhator has published extensively on his research areas and his academic papers have been cited by a plethora of public and international agencies including the United Kingdom Parliament's International Trade Committee and the United Nations Refugee Council. Dr Ekhator is also the Convenor, Comparative Law Section (Society of Legal Scholars), Chair Committee on the Teaching of International Law and the SDGs - International Law Association (Nigerian Branch) and Senior Fellow Environmental Law and Sustainable Development – Institute for Oil, Gas, Energy, Environment and

Sustainable Development (OGEES Institute) Afe Babalola University Nigeria. Dr Ekhator is the current Deputy Editor-in-Chief, the Journal of Sustainable Development Law and Policy, Afe Babalola University, Nigeria and the Co-Lead the International Law, Environment and Human Rights Research Cluster University of Derby Law School.

Methodology

The research provides a multi-layered, inter-disciplinary, qualitative exploration of existing work around environmental justice across the subregion of Cheshire and Warrington ('the Subregion'). Data was collected from relevant stakeholders and marginalised community voices on experiences of, and challenges to, mainstreaming inclusivity through environmental sustainability measures and policy.

Phase 1 involved desk-based landscaping and evidence collation to review the literature, existing challenges, and good practice around approaches to environmental justice in environmental sustainability decision making (including across the subregion). This was carried out by the PI. Phase 2 consisted of community engagement focus groups ('the focus groups') led by the PI and CI with community partners and stakeholders and semi-structured interviews ('the interviews') with key stakeholders/decision makers involved with developing and implementing environmental sustainability measures and policy across the subregion. At Phase 3, data from the Phase 1 evidence collation and Phase 2 focus groups and interviews were analysed and used to produce this report and develop a draft framework for environmental justice for decision makers across the subregion (the Environmental Justice Framework). Phase 4 involved a series of workshops with community groups and stakeholders with academic, professional or public interest in EJ and equality. In the workshops, the learning from the previous phases was shared alongside the proposed framework for EJ. In Phase 5, data from phase 4 was used to modify the draft framework to ensure it reflected the knowledge generated in workshops.

Data Collection

Appropriate qualitative data collection tools were utilised including focus groups and semi-structured interviews.

Research data was collected by means of Community Engagement Focus Groups and stakeholder semi-structured interviews as set out in Table 1, below.

OBJECTIVE	DATA COLLECTION METHOD
To establish existing challenges and good practice in relation to environmental sustainability and justice thereby seeking to improve stakeholder and decision maker understanding of challenges to environmental justice and mainstreaming inclusivity through environmental sustainability policy across the subregion and beyond.	Desk based landscaping and evidence collation.

To engage people with lived or living experience of marginalisation and socioeconomic disadvantage; connect with knowledge embedded in communities to inform future funding bids to develop a sustainable environmental justice framework; ensure clear community-led priorities, barriers and suggested solutions; develop an understanding of the change that is needed and the levers that exist to achieve it; empower communities and establish a nexus between communities and environmental sustainability stakeholders and decision makers across the subregion.	***Community Engagement Event Focus Groups*** Community Engagement Focus Groups with marginalised community voices across the subregion.
To determine clear stakeholder/decision maker priorities, barriers and suggested solutions to environmental justice and develop an improved understanding of community concerns/priorities.	***Semi Structured Interviews*** Interviews with core stakeholders and decision makers involved in developing environmental sustainability policy across the subregion.

Table 1: Data collection methods

Convenience and purposive sampling were utilised to target specific groups of participants. Community groups representing marginalised voices across the subregion were deliberately targeted to find community participants for the focus groups. Stakeholders and decision makers from the PI and CIs existing networks and work with the SIGC were targeted for the interviews.

It was considered that a minimum of 20 focus group participants and 5 individual interviews with stakeholders was required. These focus groups and interviews were carried out between April and July 2023.

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. 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 have been developed between the researchers and Cheshire West Voluntary Action (CWVA). Together, the researchers and CWVA have developed the Principles for Co-Production (White & Ross, 2023) 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 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.

Data Collection Analyses

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).

The data collected from Phase 1 were analysed to determine the emerging themes and to decide which issues and themes needed to be drilled down during the focus groups and interviews in accordance with the principles of 'grounded theory' (Glaser & Strauss, 1967; Strauss & Corbin, 2008). A system of theoretical sampling was utilised. Theoretical sampling is a method of data collection based on concepts that are derived from the data. Concepts and themes were pulled from the data that was used to drive the next round of data collection (Strauss & Corbin, 2008). 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. It is recognised that this meant that data collection had to be 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.

Project monitoring and evaluation arrangements

The PI ensured that the workplan as set out in Table 2 below was met. The project was fully reviewed at regular review meetings between the PI and CIs. The PI assumed overall responsibility for the coordinated production of the workplan:

Workplan		
Project period	**Milestones to be achieved**	**Outcomes or outputs to be completed**
First stage (April 2023 – July 2023)	Landscaping and evidence collation completed. Ethical approval submitted and obtained for focus groups and interview data collection. Organisation of focus groups. Organisation of interviews. Focus groups held. Interviews held.	Landscaping and evidence report completed. Ethical approval obtained. Community Engagement focus groups completed. Interviews completed.
Second stage (September-November 2023)	Full draft report on research findings produced for consultation.	Final draft report produced for consultation by CIs

Final stage (December 2023 – September 2024)	Draft accessible research report produced for consultation and published. Draft Environmental Justice Framework produced for consultation and published. Funding bids developed and academic publications submitted.	Accessible report and Environmental Justice Framework published. Funding bids developed/academic publications submitted.

Table 2: Workplan

It was intended that the Phase 2 research collection would be carried out over a 6 – 9-month period.

Ethical issues

Ethical approval at Phase 2 and 4 was considered vital to ensure the appropriate conduct of the research. Since the research centres on:

a) the challenges faced by those from marginalised and economically deprived communities in relation to environmental policy; and

b) 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 participated voluntarily in the research. All were provided with a participation information sheet and consent was implied from participation. This information sheet set out in detail the aims, methods and any inconveniences associated with participation. Participants were informed of an appropriate complaints procedure in the event they wished to complain about any aspect of the research.

This research did not pose a significant risk of adverse effect, risk, or hazard to stakeholder/decision maker participants. However, it was made clear that the interviews would be anonymous, and they could withdraw from the interview at any time. The interviews were undertaken using Teams or Zoom.

It was recognised that the focus groups could involve discussing potentially sensitive topics surrounding the experiences of marginalised communities, and so it was made clear that participants could withdraw from the focus group at any time and their anonymity was guaranteed in any report or publication produced.

Equally, 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. Dr Holly White and Dr Kim Ross (CIs) have extensive experience of co-production with vulnerable groups, and charities from the CI and PIs network, ensured data collection and management processes to promote and protect dignity, for example people with lived or living experience choosing the method of testimony delivery such as art. 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, they did not have to take part in all the stages of data collection. Data collection was designed to minimise additional requirements on community voices. The research also provided the participants with the valuable opportunity to contribute to wider conversations regarding collective experiences of the impact of injustice to help raise awareness. Amazon vouchers were provided to focus group participants as a recognition of their contribution.

The data created have been stored on a password protected University OneDrive and will destroyed after a minimum period of 10 years. Participants were informed through the participant information sheet that anonymous data collected from this project may be retained and published. The participant information sheet clearly stated that by agreeing to participate in this project, they are consenting to the retention and publication of data.

This research complies with the GDPR and appropriate research ethics frameworks. In particular:

a) Care has been taken to ensure that none of those participating in the research will be identified.

b) Participants' names and details not been stored on hard drives.

c) Identifier codes have been used on all data files. Data and their identifier codes have been stored separately and are only accessible to the PI.

d) Copies of any transcript do not include participant's names and copies of any transcript have been stored in a password protected file.

e) Any audio/video recording permitted by participants does not identify participants and has been used solely for the purposes of transcription. Any transcript has been identified by means of a coding system.

f) Raw data is accessible only to the research team. Data is held in a secure password protected file that is only accessible by the researchers.

g) Data files and transcriptions will be kept for a period of ten years securely and in an anonymised format.

h) Individual participants will not be identified in this report or any publications of publicly accessible material resulting from the research.

Dissemination strategy

In addition to dissemination and publication by the SIGC, the researchers will proactively pursue wider national dissemination if considered appropriate. Since research in this area is in its infancy and considering the centrality of the equality legislation to environmental justice considerations in the UK, papers will be submitted to relevant conferences and journals. The following are intended specific outputs:

1. An accessible report drawing together Phase 1 evidence collation and Phase 2 data from the focus groups and interviews setting out the research findings underpinning the suggested Environmental Justice Framework.
2. Further consultation events aimed at focus group participants and marginalised communities to disseminate and discuss the draft framework and findings
3. An Environmental Justice Framework setting out an approach to sub-regional environmental justice in relation to environmental sustainability decision making.
4. A journal article(s) for publication detailing the theory and findings from this research and exploring the national and international synergies and implications of these findings.
5. Future funding bids to support the wider testing and implementation of the Environmental Justice Framework recommended from Phase 1 and Phase 2 data analysis.

Theoretical Context

General

The recognition that the world economy was moving towards a precipice created by widening inequalities, social exclusion and environmental threats began in the mid-20th century. During the 1970s and 1980s a movement focussing on the need for 'sustainable development' grew and expanded globally. The Our Common Future/Brundtland Report in 1987 (World Commission on Environment and Development, 1987) defined the term 'sustainable development' to mean a development that *'meets the needs of the current generation without compromising the ability of future generations to meet their own needs' (p16)*. In 1992, an Earth Summit in Rio de Janeiro sought to reconcile worldwide economic development with protection of the environment, and the concept of sustainable development was adopted as a shared global concept through the Convention on Biological Diversity (Convention on Biological Diversity, 1993) and the United Nations Framework Convention on Climate Change (United Nations, 1992). This was followed up by the adoption of the Kyoto Protocol (United Nations, 1997) binding developed countries to emission reduction targets in 1997. Two decades later in 2012 at the 20th anniversary of the Earth Summit in the Rio+20 Conference on Sustainable Development (United Nations, 2012), UN member states launched a process to develop a set of Sustainable Development Goals (SDGs) to set out clear and practical measures to focus global direction towards implementing sustainable development (United Nations, 2015). These SDGs built upon the Millennium Development Goals which had been implemented in 2000 and had aimed at reversing poverty, hunger, and disease (United Nations, 2000).

The UK alongside all other UN member states committed to meet the SDGs by 2030. Over 300 proposed SDGs were distilled into 17 high priority goals for prosperity, people, planet, economic, social, and environmental objectives, and these final SDGs were formally adopted by UN member states in September 2015 at the UN Sustainable Development Summit in New York. Soon after, this was reinforced at the UN Summit in Paris (COP21) when the Paris Climate Agreement was reached (United Nations, 2015b). Today the Division for Sustainable Development Goals (DSDG) in the United National Department of Economic and Social Affairs (UKDESA) provides support and capacity building for the SDGs (United Nations Department of Economic and Social Affairs, n.d.).

It has been said that '*If sustainable development resembles a three-legged stool, giving equal weight to each leg (environmental protection, economic development, and social development) is necessary to ensure that the stool (sustainable development) is stable'* (Atapattu, et al., 2021, p. 4). Importantly, the central transformative promise of the SDGs is that no one is left behind (United Nations Department of Economic and Social Affairs, undated). Therefore, the need to ensure that disproportionate burdens do not continue to fall on already marginalised groups is enshrined in the central stated commitment of the SDGs that no one should be left behind. 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. This would require more particular focus on the distribution, procedure and recognition of marginalised voices (Martin, et al., 2020; Menton, et al., 2020).

The Intergovernmental Panel on Climate Change (IPCC) recently reported that urgent action is needed to deal with increasing climate risk. It also recognised that the impact of the crisis disproportionately impacts on already marginalised communities and that any steps to mitigate this crisis need to be implemented fairly and equitably to avoid exacerbating inequalities and to ensure implementation success (Intergovernmental Panel on Climate Change, 2022). This increased focus on environmental inequalities and environmental justice is welcome and much needed on the world stage.

The issue of addressing of such environmental inequalities in the UK has suffered from changing political priorities and stakeholder conflicts over objectives (Mitchell, 2019) (Boyce, 2013). This 'messy' challenge is further compounded by the fact that the UK's Equality Act 2010, introduced to tackle discrimination and disadvantage, identifies nine protected characteristics but socioeconomic status is not included (except in Scotland). Thus, even when organisations do carry out an equality impact assessment ('EIA') (not mandatory in England) in relation to the development of environmental policy and infrastructure investment, often this does not include consideration of socioeconomic impact, nor meaningful consultation with marginalised communities. Recent work by the Cheshire and Warrington Sustainable and Inclusive Growth Commission (Cheshire and Warrington Sustainable and Inclusive Growth Commission, 2022) has identified this as a key challenge: one that this research seeks to explore and address.

Evolving dialogue in this area recognises the relationship between environmental sustainability and inequality in human development; there are several ways in which the link manifests. Emerging research (largely in relation to developing countries) has clearly linked environmental sustainability with inequality in human development. It has been argued that there are many reasons why inequality would lead to more unsustainability and why more unsustainability would cause more inequality in human development (Neumayer, 2011). Neumayer argues that these bi-directional causal links mean that those concerned about inequality in human development would be ill advised to neglect the challenge of sustainability and vice versa. The relatively wealthy and powerful tend to benefit disproportionately from economic activities that generate environmental harm, whilst the relatively poor and powerless tend to bear a disproportionate share of the environmental costs (Boyce, 2013). Countries with more equal distributions of income, better rights and higher literacy rates tend to have higher environmental quality than those who do not (Atapattu, et al., 2021). Equally, societies with wider inequalities will tend to have more environmental harm than those with relatively modest degrees of economic and political disparities (Boyce, 2013). Similarly, it is argued that environmental issues tend to affect the poor disproportionately (Atapattu, et al., 2021). Thus, it is increasingly clear that the issue of environmental and social sustainability is inextricably linked. Whilst the wealthy can protect themselves from the negative impacts of environmental degradation, tr poorer people lack the resource to mitigate the impact (Agyeman, et al., 2003). Therefore,

one cannot simply focus on environmental sustainability without integrated action and focus on wider questions of social need, welfare, and economic opportunity.

It is essential to understand the concern about, or potential opposition to, sustainability projects expressed at a community scale, particularly in relation to those projects premised on significant infrastructural development (Avila, 2018). Proceeding ethically and inclusively means engaging with those concerns in ways that negate them, or at least ameliorate the most negative impacts. A critical part of this concerns formal processes of recognition - ensuring the visibility and accessibility of a process by which those affected can have their say (Birthwright, 2022). 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 (Sultana, 2021). Environmental justice means thinking along extended time horizons, to consider the 'end of life' phase of projects to ensure communities are not left to clean up others' messes (Samarakoon, et al., 2022).

More broadly, (Cushing, et al., 2015) suggest that inequality is bad for both the economy and the environment as inequality erodes social cohesion and reduces the willingness to cooperate to protect common resources. However, there is more recent recognition that sustainability policies can increase inequality if not accompanied by broader policy measures to address inequalities (Neumayer, 2011).

The following explores this theoretical context more broadly commencing with an exploration of emergence of the environmental justice movement and the concept of environmental inequalities before considering this in relation to the national perspective and focusing on potential frameworks and approaches for implementing environmental justice into environmental sustainability decision making.

Environmental justice and environmental inequalities

Background to the environmental justice movement

The environmental justice ('EJ') movement originally emerged from the US civil rights movement in the 1980s. It was a response to a growing recognition of the concept of environmental inequalities and concern that communities from poor and minority ethnic backgrounds were being disproportionately impacted by environmental issues and excluded from environmental decision making (Schlosberg, 2007). The United States Environment Protection Agency defines environmental justice as *'the fair treatment and meaningful involvement of all people regardless of race, color, national origin or income, with respect to the development, implementation, and enforcement of environmental law, regulations and policies'* (US Environmental Protection Agency, Undated).

More recently, the Biden administration has launched the Environmental Justice Office (The Independent, 2022). The US Justice Department also recently announced the Director of the Office of Environmental Justice (Office of Public Affairs, 2022). Furthermore, there have been recent developments regarding the definition of environmental justice in the US context. In April 2023, President Biden issued an Executive Order (The White House, 2023) on Revitalizing Environmental Justice for All stating:

> ‘To fulfill our Nation’s promises of justice, liberty, and equality, every person must have clean air to breathe; clean water to drink; safe and healthy foods to eat; and an environment that is healthy, sustainable, climate-resilient, and free from harmful pollution and chemical exposure. Restoring and protecting a healthy environment — wherever people live, play, work, learn, grow, and worship — is a matter of justice and a fundamental duty that the Federal Government must uphold on behalf of all people.’

Furthermore, this Executive Order is said to have modernised or updated the definition of environmental justice in the US 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 …’*

Whilst Europe and the UK have not had an EJ movement comparable to the US, there is a steadily increasing body of national work (Preston, et al., 2014; Eames, 2006; Lucas, et al., 2004; Walker, 2010). 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 (see below). At a governmental level, the potential for EJ as a framework for environmentally sustainable development has most notably been promoted by the Environment Agency (‘EA’) which was established in 1995 and is the national body in England responsible for the regulation of industrial processes, water, and waste. As such, the EA has been central to developing a concept of EJ within the UK (Bulkeley & Walker, 2005). At a European level, the EJ movement has emerged in response to intergovernmental international agreements largely focusing on human rights including 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).

Emerging from US research in this area, at its most basic, environmental justice academics and theorists tend to break down the concept of EJ into concepts of distributive and procedural justice. More recently, three recurrent themes of environmental justice have emerged. These consist of distributive, procedural and recognition elements and these are sometimes referred to as the ‘three concepts of justice’ (Walker, 2012). For the purposes of this report a basic dual framework is utilised. Distributive justice focuses on the equitable distribution of environmental risks and benefits (Martin, et al., 2020). In contrast, procedural justice focuses on who gets to engage in fair and meaningful participation in environmental decision making as supported by the US EPA definition of EJ, the Aarhus convention and supporting EU Directives (Natural England, 2019). However, for some procedural justice also includes access to justice and the ability to seek legal redress if environmental laws are breached (Natural England, 2019, p. 4). This report does not seek to critique the conceptualisation of EJ globally or nationally. However, it should be noted that for

many the EJ framework should be considered broader than the two core elements of procedure and distribution (Svarstad, et al., 2011; Coolsaet & Neron, 2020). More recently, there is a broader (still mooted) three part EJ framework suggested which includes 'distributive justice (fair and equitable distribution of environmental harms and benefits); 'recognitional justice' (recognition of and respace for marginalised groups, perspectives, and ways of knowing); and 'representational justice' (procedures to ensure representation of diverse perspectives in decision making) (Schlosberg, 2007; Blue, et al., 2021). Ekhator and Okumagba (2024) analyse climate justice via three dimensions - distributive, procedural and recognition. On the other hand, according to Scholsberg (2007), the four dimensions of environmental justice are distribution, recognition, participation and capabilities. Similarly, Gonzalez (2012, pp. 78-79) adopts a four-part definition of *'environmental justice consisting of distributive justice, procedural justice, corrective and social justice. Distributive justice calls for the fair allocation of the benefits and burdens of natural resource exploitation among and within nations. Procedural justice requires open, informed, and inclusive decision-making processes. Corrective justice imposes an obligation to provide compensation for historic inequities and to refrain from repeating the conduct that caused harm. Social justice, the fourth and most nebulous aspect of environmental justice, recognises that environmental struggles are inextricably intertwined with struggles for social and economic justice.'*

Environmental inequalities

The concept of environmental inequality emerged in response to the EJ movement in the US. 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 (Environmental Justice Commission, 2021). The UK for example is the fifth largest contributor to the total stock of greenhouse gas emissions and is responsible for 4.4% of historic emissions (Environmental Justice Commission, 2021). In contrast Zimbabwe for example is one of the most impacted and vulnerable countries to the consequences of the climate crisis and has only contributed 0.05% of emissions over time and is one of the poorest nations on Earth (Environmental Justice Commission, 2021).

Countries with more equal distributions of income, better rights and higher literacy rates tend to have higher environmental quality than those who do not. Similarly, it is argued that environmental issues tend to affect the poor disproportionately (Atapattu, et al., 2021, p. 9). 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 (Agyeman, et al., 2003). t is often the poor and vulnerable who pay the price for the environmentally damaging lifestyles of the wealthy (Atapattu, et al., 2021, p. 2). The Sustainable Development Research Network defines environmental inequality as '*the unequal distribution of environmental risks and hazards and access to environmental goods and services'* (Sustainable Development Research Network, 2005, p. 2). Downey (2005) sought to broaden out the concept of environmental inequality by synergising five categories derived from existing research:

1. Intentional racism where environmental hazards are intentionally placed in minority populated locations.

2. Disparate exposure when members of a specific social group are more highly exposed to environmental hazards but often experts are unable to establish links between pollution exposure and negative health outcomes.
3. Disparate health impacts when negative health effects (both mental and physical) of residential proximity to environmental hazards are distributed unequally across social groups.
4. Disparate social impacts when in addition to presenting a potential health threat environmentally hazardous neighbourhoods are also socially and economically undesirable places to live having a negative impact on local economic activity and property values. This can lead to so called 'climate gentrification' when those with greater economic means are able to access cleaner residential environments (Tubridy, et al., 2022).
5. Relative distribution of burdens versus benefits focuses on asking whether groups that receive the greatest benefits of the capitalist production and distribution process should bear a greater share of the burdens of this process.

Whilst focus on environmental inequalities in the US has often focused on issues of race, in the UK focus has centred on issues of poverty, health and social exclusion. Indeed, whilst environmental inequalities in the UK have only been actively researched in the last three decades, it now has one of the best developed evidence bases in Europe although much of the research has focussed on small scale localised datasets (Natural England, 2019). This has largely been collated by organisations such as Friends of the Earth, the Joseph Rowntree Foundation, The Environmental Justice Foundation, the Forestry Commission, and the Environment Agency.

Just Transitions

In recent years the emergence of dialogue around 'Just Transitions' has developed from the climate and environmental justice movements and indeed the terms are often used interchangeably and overlap (Grub & Wentworth, 2023). Whilst originally a labour-oriented concept applied by activists and unions since the 1970s, the term 'Just Transition' ('JT') has more recently expanded into academic debate around equitable low carbon transition more generally (Wang & Lo, 2021). The International Labour Organization defines it to mean *'greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind'* (International Labour Organization, 2015). The Paris Agreement also refers to JT in its preamble referring to *'the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities'* (United Nations, 2015). Just Transition as a concept seeks to *'centre the interests of those that are most affected by the low-carbon transition…and advocates the inclusion of these stakeholder in shaping the net zero transition so that no one is left behind'* (Grantham Research Institute, 2024). Some countries (including Scotland) have established Just Transition Commissions to provide expert advice on how to achieve this (Heffron, 2021).

As an emerging concept, JT has often been used as a general term to cover large and complex issues. A systematic review of emerging global literature around JT found that the academic focus has largely been on distributional justice rather than recognitional and procedural justice (Stark, et al., 2023). Indeed, the literature suggested that JT has operated as a '*place holder for range of unclear and not necessarily consistent practices that governments might implement in conjunction with affected business and workers with, but much more likely without, wider participation from community groups, environmental and society civil society organizations, and indigenous peoples'* (Stark, et al., 2023, p. 1296). Crucially, Stark et al (2023) also express concern that national policies to implement a JT program may lead to unanticipated injustice to those groups who are outside of the focus of decision makers due to a lack of a framework to ensure community participation in JT policy development and decision making. Equally, there is an emerging recognition that the academic conceptual dialogue around JT would benefit from more empirical studies rooted in practice (Wang & Lo, 2021).

In the UK, the devolved nations have already developed a legislative framework around JT (including The Climate Change (Scotland) Act 2019; The Climate Change (Northern Ireland) Act 2022; The Well-being of Future Generations (Wales) Act 2015) which are strengthened by the development of policy. Most of the UK policies focus on decarbonisation of the energy sector and workers and communities directly involved but the devolved nations are moving to expand beyond this sector. The UK Government has also signed several international agreements focusing on Just Transition (Grub & Wentworth, 2023).

Whilst this research report uses the terminology around 'environmental justice', it is recognised that this inevitably overlaps with dialogue and policy considerations around the UK and global Just Transition agenda. The quest to achieve JT should also enhance environmental justice in society and mitigate the negative impacts of energy projects on the relevant stakeholders in society. Thus, reliance on environmental justice movement can also have positive impacts on the move towards a low-carbon economy or transition from fossil fuels (Outka, 2017). This research has however been framed in terms of 'environmental justice' to provide breadth of focus. It is considered that environmental justice includes both 'climate justice' (focusing on addressing the inequalities resulting from the climate emergency) and 'Just Transitions' (still largely focusing on the decarbonization agenda).

UK context

Environmental justice is understood to have diverse meanings from the viewpoints of developed and developing countries (Ako & Olawuyi, 2018; Ekhator & Agbaitoro, 2024). For example, in Africa, environmental justice could be labelled as a concept or idea that mainly involves access to natural resources, while in countries like the US and the UK, it focuses on preserving the planet's well-being, principally through public participation (Ako, 2009). In the UK, the environment justice concept is geared towards an understanding or appreciation of socio-economic parity (Ekhator & Agbaitoro, 2024; Ako, 2009). In essence, environmental justice has varied meanings, strategies of

access, and implications in various contexts or countries (including regions) (Coolsaet, 2020).

There have been numerous studies conducted showing the environmental injustices faced by UK citizens and residents, including the archetypical north-south divide and the plethora of injustices affecting the already vulnerable social groups in the country (Ogunbode, et al., 2023). However, 'UK EJ [environmental justice] has been driven top-down, by international agreements' (Mitchell, 2019, p. 8). According to Agyeman in (2000, p. 7):

> 'To many people in the UK, environmental justice is quite simply someone else's problem. To them, the terms "environment" and "justice" do not sit easily together. At best, their combination evokes a memory of some distant news report or documentary of how communities of colour and poor communities in the US face a disproportionate toxic risk when compared to the white middle-class communities'.

Hence Agyeman and Evans (2004) argue that there is an 'environmental justice paradox' in the UK. This trend has, however, changed in recent times, as gradually environmental injustice has been shown to exist more deeply and frequently than previously presumed. Hence Agyeman argues that it happens in many ways, from disproportionate pollution loadings to fuel poverty, from transportation inequalities to lack of access to the countryside because of rural racism. In response, calls for greater environmental justice have become louder. This has led to greater policy awareness for environmental justice.

Unlike in the US, very few laws and institutions specifically tackle environmental injustice in the UK. Some regulatory mechanisms on environmental justice, especially regarding access to environmental justice and public participation in environmental decision-making, are covered by the Environment Act 2021 and the Aarhus Convention.

The Aarhus Convention entered into force on 30 October 2001 and the UK ratified it on 23 February 2005. Public *'participation has long been a central feature of English environmental law, reinforced in recent decades by the Aarhus Convention, and perhaps even more by EU law's insistence on consultation in the implementation of EU environmental law'* (Armeni & Lee, 2021, p. 550). 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'* (ClientEarth, 2022). Even though the UK is a party to the Aarhus Convention, the Convention has not been fully transposed into UK law. This has a negative impact on access to environmental justice.

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. However, Lee (2023) has argued that the UK Environment Act 2021 has negative impacts on public participation in environmental issues in the country. For example, Lee (2023, p. 756)

relying on the parameters of ‘general quality and orderliness; information and evidence; inclusion; and impact’ argues that provisions in the Environment Act regarding public participation and consultation are inadequate.

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 and is now mainstreamed through the SDG indicators. It is also seen by some as integral to the levelling up agenda (Gov.UK, 2021). This includes environmental inequalities analysis carried out by the Department for Environment, Food and Rural Affairs (‘DEFRA’) in relation to Air Quality and Social Deprivation in the UK (Department for Communities and Local Government, 2006) . The Environment Agency also publishes specific reports addressing environmental inequalities (Environment Agency, 2006; Environment Agency, 2008; Environment Agency, 2023). In addition, there is an increasing corpus of secondary work in this area (Banks, et al., 2014; Lindley, et al., 2011). Several UK-based NGOs have focused on the need to address environmental inequalities (for example, Friends of the Earth, Friends of the Earth Scotland, Capacity Global, Groundwork UK, London Sustainability Exchange).

A study based on a joint seminar of Friends of the Earth and the London School of Hygiene and Tropical Medicine, together with academic research undertaken by the ESRC Global Environmental Change Programme, was one of the first examples of an environmental group in the UK specifically addressing the social consequences of environmental risk on disadvantaged communities. The ESRC Global Environment Change Programme report (Stephens, et al., 2001) provided evidence of inequitable distribution of pollution sources across England and Wales with the sources of greatest pollution overwhelmingly existing in areas of greatest deprivation.

Subsequent studies have pointed to significant UK environmental inequalities, including inequalities to marginalised communities due to proximity to risky and polluting installations, exposure to air pollution, derelict land, and coastal flood risk. An evidence review carried out by the Sustainable Development Research Network on behalf of DEFRA in 2004 attempted to compile an evidence base on environmental inequalities in the UK across twenty-one diverse topic areas (Lucas, et al., 2004). The report concluded that there was growing evidence that:

- Environmental injustice is a real and substantive problem within the UK.
- Problems of environmental injustice afflict many of our most deprived communities and socially excluded groups.
- Both poor local environmental quality and differential access to environmental goods and services have a detrimental effect on the quality of life experienced by members of those communities and groups.
- In some cases, not only are deprived and excluded communities disproportionately exposed to an environmental risk, they are also disproportionately vulnerable to its effects.

- Whilst more needs to be know about both the causes and impacts of environmental injustice, research is also needed to support the development and effective implementation of policy measures to address and ameliorate the impacts of environmental injustice.

More recently 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' 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'* (Environmental Justice Commission, 2021, p. 1). This 2021 report placed people at the centre of its recommendations and the necessary approach to developing them. In particular, the report recommended six major shifts in the UK's approach to addressing the climate and nature crisis to achieve distributive and procedural justice.

Figure 1: From IPPR Fairness and Opportunity: A people-powered plan for the green transition

Between 2009 – 2017 an interdisciplinary research programme funded by the Joseph Rowntree Foundation focused on the social justice implications of climate change in the UK (Banks, et al., 2014; Lindley, et al., 2011). This work explored the concept of climate inequalities as a consequence of underlying issues of social vulnerability interacting with exposure to hazards such as flooding or extreme heat. It recognised that the social risks of climate impacts were amplified for those who already face social disadvantage.

Much of the national dialogue has supported global EJ scholarship and sought to emphasise the nexus between social and environmental inequalities. For example,

Knox (2018) argues that the distributional and procedural justice implications of climate change apply internationally but also within nations. Specifically in the UK, intersections between poverty, social vulnerability, and climate change lead to climate injustice. In particular, she identifies four main manifestations of climate injustice including inequities in responsibility for carbon emissions; in the social impacts of climate change, in how the costs and benefits of responses are shared and procedural injustice (Knox, 2018). One report focusing on limited case study data from environmental conflicts in Scotland, suggests that any debate around climate justice must be anchored in the material interests of those social groups negatively affected by the climate crisis and that social transformation is required to achieve climate justice in the UK and beyond (Scandrett, 2016). Emerging discourse around EJ focuses on localised impacts and experience and inequitable vulnerabilities (Collins, 2014). One study focusing on climate justice in Greater Manchester found that (Kazmierczak, 2016) more diverse communities, people living in rented accommodation and in poor quality housing are likely to be at the greatest risk of high temperatures caused by the climate emergency.

Whilst much literature in this area focuses on socioeconomic deprivation, there have also been analyses by gender (MacGregor, 2010; Denton, 2002; Terry, 2009; Ekhator & Obani, 2022; Ekhator, 2020), race (Rudge, 2023; Mann, 2006), age (Yang, et al., 2021; Ogunbode, et al., 2023) and disability (Stein & Stein, 2022; King & Gregg, 2021). There is an increasing plea to acknowledge the large variety of inequalities along different dimensions including intersectionality when considering climate justice (Arne Heyen, 2023; Mikulewicz, et al., 2022). Arguably there are heightened negative impacts of environmental justice on women. Indeed, Ekhator and Obani (2022, p. 262) point to women suffering exceptionally from environmental injustices in different parts of the world and state:

> ‘Gender roles determine vulnerability to climate change and other negative environmental externalities, as well as the allocation of and access to environmental goods, with women being often worse off (Onwutuebe, 2019; Hughes, 2021). Other critical gender dimensions of environmental justice include women’s exclusion from decision-making on environmental issues (IUCN, 2015), poor consideration of the impact of degrowth and conservation/environmental protection policies on women’s livelihoods, and the disproportionate risk of exposure to pollution borne by women because of the siting of polluting industries’.

As can be seen above, much of the existing focus has been on distributive justice and the disparate impact of the environmental crisis on marginalised communities (Burnham, et al., 2013). Numerical models have been the most common tool for understanding the implications of climate change planning by means of integrated assessment models (IAMS). Such models have been criticised as often aggregating costs and benefits of policies across an entire area, over all actors and for not recognising the distribution of burdens and benefits for different actors across different time and space. It is suggested that this gives rise to inherent problems of injustice (Arga Jafino, et al., 2021).

However, over the last decade there has been an emerging dialogue in relation to procedural justice, expanding the focus from questions about who participates into how they participate in environmental planning and decision making. Similarly, the importance of engaging the community voice in responses to the environmental and climate crisis is becoming more central to national EJ considerations (Collins, 2014) In particular, it has been argued that there is a critical need for research focusing on procedural justice at a local level (Burnham, et al., 2013). Indeed, UK policies around climate related challenges have arguably sought to focus on empowering communities to develop resilience and to respond to local challenges themselves (The Conservative Party, 2015). Equally, the literature points to collaborative approaches as a means of empowering resilient communities but that local authorities can undermine this by ignoring findings from public consultations on environmental issues (Henderson, et al., 2020).

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 environmental sustainability conversations (Marino & Ribot, 2012). Indeed, studies synthesising evidence from existing literature suggest that many environmental sustainability policies are linked to both co-benefits and adverse side-effects. These can either heighten or reduce inequalities depending on contextual factors, policy design and policy implementation. In particular, the risk of negative outcomes is greater in situations involving high levels of poverty and social inequalities and where little action is taken to identify and mitigate potentially adverse side-effects (Markkanen & Anger-Kraavi, 2019).

Markkanen and Anger-Kraavi further argue that negative inequality 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. Moreover, the best results are achieved when inequality impacts are taken into consideration in all stages of policy making, including policy planning, development and implementation (Markkanen & Anger-Kraavi, 2019).

Following COP28 (which took place from the 30th November – 12th December 2023) and the report of the Environmental Justice Commission (which placed procedural and distributive justice at the centre of a recommended shift in the UK approach to addressing the climate and nature crisis (Environmental Justice Commission, 2021)), there is a need to ensure that the opportunity to increase focus on environmental inequalities and environmental justice is not missed at a domestic level. Similarly, it is argued that environmental law and recent changes in this area will have a detrimental impact on progress towards environmental justice.

Implementing environmental justice

For EJ to truly evolve as a solution to environmental inequalities in the UK and beyond, a multi-disciplinary approach towards EJ solutions that truly work is required. Understanding 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. 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 data hubs and better collaboration with marginalised communities to fully understand the impact of policy development and implementation. Calls for '*a stronger shift towards forms of research that engage with activists, communities, and other actors in ways that help to transform power relations, strengthen their capabilities, and overcome the increasing vulnerabilities to which they are subjected in the face of the current global climate and ecological crisis'* (Martin, et al., 2020, p. 29). This section will explore existing means of potentially framing approaches towards EJ in developing, implementing, and evaluating environmental policy and decision making.

Impact assessments

Many believe that existing impact assessment tools could be better used to mitigate environmental inequalities and promote environmental justice (Connelly & Richardson, 2005; Walker, 2010). They could offer a dual pronged approach to enable greater community and stakeholder participation, thus promoting procedural justice and ensuring the robust and systematic analysis of negative impacts and benefits of environmental policy and measures aimed at achieving distributive justice. Globally there are a range of potential impact assessment tools that are used in an environmental context (Walker, 2010; Blue, et al., 2021). In the US, use of impact assessments to ensure environmental justice 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 environmental justice part of their working practices. However, even these focused methods have been criticised for concentrating on distributive justice concerns and then only in relation to a limited range of environmental concerns (Walker, 2010; Holifield, 2004; Office of Inspector General EPA, 2004). In comparison at a national level in the UK, there has been little consistent use of impact assessments to ensure procedural 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 report cannot provide a full scoping of impact assessments that are and could be used in an EJ context globally and/or nationally. However, others have attempted to produce scoping summaries including Walker (2010) and more recently Blue et al (2021). Walker (2010) described a wide range of impact assessment and policy appraisal tools used in the UK context. A study by (Walker, 2007) originally completed for Friends of the Earth identified 16 different forms of impact assessment (see figure 2 below) as potentially relevant to environmental justice concerns, 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 (Walker, 2010; Burdge, 2003).

Impact assessment tool	Focus of assessment	Statutory requirement	Official policy	Advisory policy	Profile for distributional analysis	Guidance on distributional analysis
Environmental Orientation						
Environmental impact assessment	Environmental effects of a development proposal, and potential mitigation options	Yes			Low	None
Strategic environmental assessment	Environmental and sustainability implications of strategic policies, programmes and plans	Yes			Low	Little
Social orientation						
Social impact assessment	Impacts a proposed action will have on the life of individuals and communities				Medium	Some
Health impact assessment	Health effects, positive and negative, of a project, programme or policy		Yes	Yes	High	Substantial
Health equity audit	Impacts on health inequalities of a project, programme or policy			Yes	High	Substantial
Well-being power and WB impact assessment	Impact of a local plan or project on community well-being				High	Little
Gender impact assessment	Relative impact of a policy or practice upon men and women respectively			Yes	Medium	Some
Equality impact assessment	Impact of a policy on different groups in relation to religious belief, political opinion, racial group, age, marital status, sexual orientation and disability and dependency		Yes (in Northern Ireland)		High	Substantial
Economic orientation						
Regulatory impact assessment	Impacts of policy options in terms of costs, benefits and risks of a proposal.		Yes	Yes	Medium	Some
Green book guidance	The combined economic, financial, social and environmental impacts of a policy, programme or project involving public investment		Yes	Yes	Medium	Substantial
Assessment of impacts of spatial interventions	The combined economic, financial, social and environmental impacts of spatially targeted interventions		Yes	Yes	Medium	Some
Consumer impact assessment	Whether markets and public services are working in the consumer interest.			Yes	Medium	Little
Transport analysis	The prioritisation of transport investment proposals by comprehensive analysis of the full range of impacts		Yes	Yes	Medium	Substantial
Integrative orientation						
Sustainability appraisal	The extent to which the implementation of a plan or strategy would achieve the environmental, economic and social objectives by which sustainable development can be defined.	Yes (in England)	Yes	Yes	Low	Little
Integrated policy appraisal	All the potentially significant impacts of a policy proposal addressing these at the same time				Medium	Substantial

Figure 2: Sixteen forms of impact assessment, their status in the UK and the profile given to distributional analysis sourced from (Walker, 2007; Walker, 2010)

Other forms of assessment include the Environment Agency's appraisal process relating to decisions on investment in flood protection and water quality which (as we have seen above) have evolved to take account of specific community vulnerability profiles. However, such development has been piecemeal and systematic appraisal of distributional issues is lacking (Walker, 2010).

Arguably, the existing scatter gun impact assessment regime is limited in its ability to develop a consistent focus on EJ (perhaps except for Scotland in relation to SEAs – see below). This section will consider the existing use of impact assessments in this regard to enable later evaluation of whether a more streamlined, consistent, and effective tool can be developed to meet the needs of EJ in a domestic context.

EIA AND SEA APPROACHES

The concept of sustainable development was introduced by the World Commission on Environment and Development in 1987 ((World Commission on Environment and Development, 1987). This laid the foundations for the Rio Summit in 1992 and subsequent conventions recommending Environmental Impact Assessments (EIAs) as a core tool for achieving sustainable development by ensuring that decision makers

gather appropriate information on the likely environmental, social, economic and health effects of development proposals.

An EIA is an assessment of a planning project's likely environmental effect. When planning applications are being developed, an EIA assesses significant effects on the environment along with economic or social considerations before an individual project is granted planning permission. As part of this process, where possible, environmental effects can be reduced or mitigated. Importantly, an EIA gives the public and other stakeholders the chance to participate in the decision-making process around environmental impacts.

It has been however recognised that higher level decisions made at a policy, plan and programme level may equally have considerable environmental implications. This encouraged the extension of EIA use to the assessment of higher level decisions making through Strategic Environmental Assessment (SEAs) Indeed it has been argued that many environmental issues are more effectively dealt with at these higher levels (Envrionment Agency, 2002).In essence, SEAs are used to gather information on environmental impacts of government plans and programmes before they are issued.

EIAs and SEAs (collectively referred to as environmental assessment) first became formal requirements in the UK in 1988 (based on EU EIA Directive 85/337/EED) and 2004 (based on EU SEA Directive 2001/42/EC) respectively. Together the system is referred to as environmental assessment. Development of this environmental assessment has continued over the last two decades (Fischer, 2023).

The SEA requirements and guidance in the UK have largely stayed constant since 2004 with differences in approaches between England, Scotland, Wales, and Northern Ireland. In a national context, EIAs are subject to a statutory framework. In a town and country planning context, from 16 May 2017 onwards, EIA process is regulated by:

- The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 SI 2017/571 in England, and
- The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017 SI 2017/567 in Wales

SEA requirements have largely remained unchanged since the 2004 implementation of the SEA Directive and initial guidance introduced in 2005 (Office of the Deputy Prime Minister, 2005) remains in use in England, Wales, and Northern Ireland. Importantly, in Scotland, an SEA is applied not just to plans and programmes, but also to policies. More recent guidelines are available with a government body supporting the application of SEAs having been established.

More recently in November 2021, the Office for Environmental Protection was created under the Environment Act 2021 (Office for Environmental Protection). This body is tasked with protecting and improving the environment by holding government and other public authorities to account and its work covers England and NI.

Whilst environmental impact assessments (EIAs) have served as tools to protect the environment in the UK, the recent UK developments (especially in England) might have negative implications on the environmental impact assessment process in the country. Thus, in England – the government is loosening the environmental impact assessment procedures and framework post Brexit.

In England, these major post-Brexit environmental law developments 'concerns the environmental assessments that are required of certain categories of development projects and new infrastructure. There has been an unambiguous decision in England to move away from EU-derived regulations on Environmental Impact Assessment (EIA, mainly for individual projects) and Strategic Environmental Assessment (SEA, for larger developments)' (Baldrock, 2022, p. 7). This is now reflected in the Levelling-up and Regeneration Act (LURA) 2023.The LURA was passed into law on 26 October 2023.The LURA 2023 entails the 'replacement of environmental impact assessment (EIA) and strategic environmental assessment (SEA) with a new procedure called environmental outcome reports (EORs)' (Caine, 2023, p. 537). Arguably, it is too early to assess its impact.

However, during the LURA's development, many relevant stakeholders criticised the potential negative impacts of the law on environmental impact assessment in the country. For example, many environmental groups argued that the move could be highly damaging to environmental protection and environmental justice. During the passage of the Bill, there was criticism of the fact that the Bill as formulated would provide the secretary of state with so-called 'Henry VIII' powers. This would allow them to amend or repeal provisions of an Act of Parliament using secondary legislation. This is highly controversial because it potentially means that any environmental law could be removed without having to seek the approval of Parliament' (Caine, 2023, p. 537).

EIAs and SEAs have not consistently facilitated a consolidated or focused approach towards procedural or distributive EJ (Walker, 2007). Similarly, it is unlikely the proposed EOR regime will provide any further expansive provision in this regard (Fischer, 2023). Although Part 6 of the LURA explicitly enshrines the EOR regime there has been a delay in the implementation. Further lack of clarity comes from the election of a Labour Government in July 2024, and it remains to be seen what impact this change may have on the implementation of policy and legislation in this area. However, it should be noted that the implementation of SEAs in Scotland have provided for focus on procedural EJ, but clarity has not necessarily been provided in relation to distributive justice (Jackson & Illsley, 2007).

SUSTAINABILITY IMPACT ASSESSMENTS

Globally and across Europe there is a developing concentration on Sustainability Impact Assessments ('SIA'). An SIA is a means of considering the combined economic, environmental, and social impacts of a range of proposed policies, programmes, strategies, and action plans. In the UK, under the Planning and Compulsory Purchase Act 2004, a sustainability appraisal must be carried out as a systematic process during the preparation of local plans and spatial development strategies. its role is to promote sustainable development by assessment the extent to which the emerging plan will help to achieve relevant environmental, economic, and social objectives. In particular, the process considers the ways that a plan can contribute to improvements to such

conditions as well as identifying and mitigating any potential adverse effects of the plan. Importantly, sustainability appraisals incorporate the requirements of the Strategic Environment Assessment Regulations (discussed above). Beyond this, there are no wider statutory requirements within the UK to carry out an SIA. As a predominantly 'soft' tool of assessment, an SIA usually seeks to assess likely economic, social, and environmental effects of policies and plans before they have been formulated (Kersten, 2010). According to the then UK Department of Environment, Transport, and the Regions as far back as 2000 (DETR;, 2000), an SIA was defined as:

> 'a systematic and iterative process for the ex-ante assessment of the likely economic, social, and environmental impacts of policies, plans, programmes and strategic projects, which is undertaken during the preparation of the above and where the stakeholders concerned participate pro-actively. The main aim is to improve the performance of the strategies by enhancing positive effects, mitigating negative ones, and avoiding the transfer of negative impacts to future generations.'

In its 2010 guidance, the Organisation for Economic Co-operation and Development recognised that an SIA should focus on more than numbers and include qualitative and 'soft' forms of analysis and participatory approaches. From a procedural and distributive EJ perspective, SIAs also reinforced that Stakeholder involvement is fundamental to understanding the possible impacts on marginalised groups but also in designing the approach to take. As such, transparency and accountability are key (OECD, 2010).

In conducting an SIA, the OECD lists key questions to be addressed in the preliminary stage of the development of a measure or policy:

- What is the nature and scale of the issue(s), how is it evolving, and who is most affected by it?
- What are the views of the stakeholders concerned?
- What are the policy objectives and what problems need to be addressed or solved?
- What are the likely impacts (social, economic, ecological, and institutional) of the policy options?
- What are the possible unintended (secondary) side-effects?
- What changes in the target group's behaviour are desired?

Some commentators have called for mandatory implementation of SIAs more broadly in relation to the development of core policy such as trade (Lydgate, 2020). Arguably, a move towards the consistent use of SIAs in the UK could provide for an approach to impact assessment that involves distributional analysis as well as ensuring procedural justice in developing and implementing ES policy and measures. A broad range of sustainability impact assessment tools exist (Von Raggamby, 2010) and are indeed implemented in an ad hoc way across the UK. The European Commission (European

Commission, 2005) has recommended that simple tools are used where possible. There has been a call for tools which allow combinations of quantitative and qualitative information and present easy solutions (Von Raggamby, 2010). As found in this research, tool use practice is often less than might be expected and there is a plea from decision makers for flexible tools which can be adapted to given policies and circumstances (Von Raggamby, 2010).

There is evidence of some use of Social Impact Assessments (SocIA) globally. This form of assessment is more focused that an SIA and is inherently concerned with distributional impacts on people and communities (Walker, 2010). A SocIA seeks to analyse, monitor, and manage the intended and unintended social consequences of planned interventions. Guidance such as that provided by The International Association for Impact Assessment (2003) seeks to ensure that *'equity considerations should be a fundamental element of impact assessment and of development planning'* (International Association for Impact Assessment, undated). However, as noted above UK institutions, regulations and practice have largely resisted moving to a routine assessment of distributional social impacts of environmental decisions (Walker, 2010).

EQUALITY IMPACT ASSESSMENTS

Walker (2010) also noted the potential for the use of Equality Impact Assessments (EqIAs) in England and Wales 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.

The use of EqIAs is no longer mandatory in England (but remain so in Wales and Scotland). The Public Sector Equality Duty (PSED) provides the legislative framework under the Equality Act 2010 for application of EqIAs in relation to the 'protected characteristics under the EA 2010. The origins of the PSED under the Equality Act 2010 can be traced back to the allegations of incompetence and racism against the Metropolitan police following the murder of 18-year-old Stephen Lawrence as he waited for a bus in Eltham in South London in April 1993. Sir William Macpherson was tasked with undertaking an inquiry into the Metropolitan police's investigation into the murder of the black teenager. The publication of the Macpherson report in February 1999 (Macpherson, 1999) is seen by many as a pivotal moment in British race relations and in the development of equality legislation in this country. The report delivered a damning assessment of the 'institutional racism' within the Metropolitan police and policing generally.

It was clear that a fundamental rethink was needed around how the police and public sector bodies more generally were addressing discrimination and racism. The emphasis in the equality legislation on addressing cases of discrimination and harassment after they had occurred rather than requiring preventative measures was recognised as a considerable problem. Consequently, in 2001 the Race Equality Duty was introduced into law. For the first time, this placed an obligation on public authorities to positively promote equality rather than just seeking to avoid discrimination. This was followed in 2006 by a similar duty in relation to disability and in 2007 in relation to gender.

The Equality Act 2010 harmonised the equality duties into a Public Sector Equality Duty and extended this across the protected characteristics under the EA 2010. Section 1 of the EA2010 had also set out a public sector duty in relation to socio-economic inequalities. This required public bodies to adopt transparent and effective measures to address inequalities that result from differences in occupation, education, place of residence or social class. Successive governments have refused to enact this into law in England. However, other parts of the UK have implemented this. In April 2018, the Scottish Parliament enacted the Fairer Scotland Duty (Scottish Government, n.d.) which is the name given to the socio-economic duty in Scotland. In March 2021, the socio-economic duty came into force in Wales (Welsh Government, n.d.).

The PSED came into force in April 2011 under the Equality Act 2010. 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. It requires equality to be considered and mainstreamed into the way public bodies act as employers; public sector decision-making; the development, evaluation, and review of policy; the design, delivery, and evaluation of services; and how they commission and procure from others. It also requires these matters to be kept under review.

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' (Equality and Human Rights Commission;, undated).

The General PSED under section 149 of the Equality Act 2010 is broken down into three distinct aims. Public authorities subject to the PSED 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 Act [AIM 1]
- Advance equality of opportunity between people who share a protected characteristic and those who do not [AIM 2]
- Foster good relations between people who share a protected characteristic and those who do not [AIM 3]

Whilst Aim 1 requires public bodies to have due regard to the need to avoid unlawful discrimination under the Equality Act 2010 and is self-explanatory, aims 2 and 3 set out a requirement for public bodies to proactively implement measures to advance equality of opportunity and foster good relations. Aim 3 (the need to foster good relations) explicitly states the need to tackle prejudice and promote understanding.

In particular, the second Aim (advancing equality of opportunity) requires a public body to have 'due regard' to the need to:

- Remove or minimise disadvantages suffered by people due to their protected characteristics.
- Take steps to meet the needs of people with certain protected characteristics where these are different from the needs of other people.

- Encourage people with certain protected characteristics to participate in public life, or in other activities where their participation is disproportionately low.

It is worth noting the link here between Aim 2 and the positive action provisions of the Equality Act 2010. Sections 158 and 159 of the Equality Act 2010 are permissive only. However, it has been argued that the link between positive action and the PSED encourages a more proactive approach by public bodies to positive action. Arguably, the similarities between the wording of the PSED and the provisions of section 158 of the Equality Act 2010 mean that public sector employers are required at least to consider introducing positive action initiatives beyond eradicating discrimination (Davies & Robison, 2016). Section 158 of the EA 2010 permits special measures to be implemented where they are a proportionate means of achieving the aims of enabling or encouraging the affected persons to overcome or minimise disadvantage; meet the needs of protected groups; and/or enable or encourage underrepresented groups to participate in an activity. Aim 2 replicates this wording as a positive duty on public bodies to have due regard to the need to advance equality of opportunity. Therefore, the argument which is a little controversial is that the PSED places an obligation on public sector bodies to have due regard to the use of positive action.

The three aims of the General PSED under Section 149 cover the following protected characteristics: age (including children and young people), disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex, and sexual orientation.

The General PSED is supported by Specific Duties implemented under secondary legislation or Regulations. These Specific Duties differ between England, Scotland, and Wales. The Specific equality duties in England are set out under the Equality Act 2010 (Specific Duties and Public Authorities) Regulations 2017. Neither Section 149 of the Equality Act 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 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 general equality duty aims.

The case law principles derived from the core cases of Brown (R (Brown) v Secretary of State for Work & Pensions , 2008), Bracking (Bracking and others v Secretary of State for Work and Pensions (Equality and Human Rights Commission intervening) , 2013) and others can be summarised as follows and are vital in understanding the detail around how to ensure adherence to the PSED. To properly have ‘due regard’ to the PSED Aims, a public body should keep in mind the following:

- The application of the PSED depends upon the context. It requires the taking of proactive reasonable steps to make enquiries about what may not yet be known to a public authority, regarding the potential impact of a proposed decision or policy on people with the relevant characteristics.
- Compliance with the PSED involves a conscious approach and state of mind. General regard to the issue of equality is not enough to comply. Therefore, decision makers should be aware of the implications of the duty.

- The PSED places equality considerations, where they arise, at the centre of policy formulation, side by side with all other pressing circumstances, however important these might be.
- Each aim of the PSED must be considered. The requirement to have due regard to the need to advance equality of opportunity is a separate obligation, in addition to the need to avoid unlawful discrimination.
- The PSED must be complied with before and at the time a particular policy is under consideration, as well as at the time a decision is taken. A public body cannot satisfy the general equality duty by justifying a decision after it has been taken. Consideration of the PSED is an essential preliminary to any decision.
- A public body must consciously think about the need to do the things set out in the PSED as an integral part of the decision-making process. Having due regard is not a matter of box ticking. Rather, there should be evidence of a rigorous, open minded and structured attempt to focus on the details of equality issues.
- A public body must have sufficient evidence on which to base consideration of the impact of a policy or decision. There must be substantial sifting of relevant facts and research and attention to conflicting views. There must be meaningful consultation and engagement with interested parties.
- The duty to have 'due regard' under the PSED rests with the public body even if they have delegated any functions to another organisation.
- A public authority must consciously consider the need to comply with the PSED, not only when a policy is developed and decided upon, but also when it is being implemented. The PSED is a continuing duty, so public bodies may need to review policies or decisions considering the general equality duty.
- Although a public body is not legally required to keep records of its consideration of the aims of the general equality duty in making decisions, it is good practice and sensible to do so and it encourages transparency.

One of the main tools to help public bodies meet their obligations under the PSED are Equality Impact Assessments (EqIAs). This is a process by which public bodies can assess the impact that a policy or practice is having, or is likely to have, on equality. There is no specific duty to carry out an EqIA in England. As above, in Scotland and Wales there are specific duties to assess equality impact of policies. However, while there is no legal obligation to carry out a process labelled as an 'Equality Impact Assessment' in England, as above 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 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. Whilst an EqIA is a

practical tool to identify discrimination and assist in the analysis of policies and practices to make sure they don't discriminate or disadvantage people, it should also be used to improve and promote equality.

EqIAs are intended to be a tool to be used in evidence-based policy and decision making. All policies, procedures and processes should be assessed at development stage and reviewed regularly. A key element of an EqIA is that an organisation takes 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. As also seen, 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.

Legal challenge using judicial review can be brought against public authorities in the UK for breach of the PSED in relation to environmental sustainability decision making under s149 of the Equality Act 2010. For example, in the case of Gathercole v Suffolk CC [2020] EWCA Civ 1179, in granting planning permission for a new primary school Suffolk County Council had failed to have due regard to its public sector equality duty in respect of the effect of aircraft noise from a nearby airfield on children with protected characteristics. However, on the facts it was highly likely that the planning decision would have been no different if due regard had been given to the PSED and therefore the appeal was dismissed.

Recently in the case of McLean's Application for Judicial Review [2024] CSOH 77 (although not successful on the facts), the Court of Session in Scotland heard a petition to judicially review a resolution of Aberdeen City Council on the basis that the Council had adopted a Local Development Plan designating parkland as an area suitable for development as part of an Energy Transition Zone but had done so without carrying out an equality impact assessment under the Equality Act 2010 (Specific Duties) (Scotland) Regulations 2012.

Based on the case law and guidance around the PSED, it is possible to formulate a robust and effective approach to EqIAs. Importantly an EqIA will usually require an assessment of impact on protected groups as well as consultation. Therefore, it meets the needs of both distributive and procedural justice.

SUSTAINABILITY AND INCLUSIVE GROWTH COMMISSION INCLUSIVITY TOOLKIT

The Cheshire and Warrington Sustainable and Inclusive Growth Commission was set up by the Sub-regional Leaders' Board in November 2020, with the aim of contributing towards realising Cheshire and Warrington's ambition of becoming the most sustainable and inclusive subregion in the UK. Its work was divided into collation, planning, engagement, and promotion phases, with a final report produced in September 2022 (Sustainable and Inclusive Growth Commission, 2022). The Commission is made up of elected representatives from each local authority 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. It has also worked

with expert advisers from beyond the Commission. The Commission's Secretariat is drawn from the LEP with support from the Local Authorities. The Commission works across four themes: Inclusive Economy, Sustainable Transport, Sustainable Land Use, and Net Zero. For each of these themes the Commission has developed an evidence base for Cheshire and Warrington's current position, a vision representing where the Commission believes the subregion should aim to be and a set of recommended actions to achieve these visions. Several recommendations in the 2022 Report cross-cut multiple themes.

Considering the importance of ensuring the inclusivity was mainstreamed through the environmental sustainability workstreams, the SIGC implemented three approaches:

- Firstly, an SIGC member with experience of implementing inclusivity into decision making processes was co-opted onto each of the environmental sustainability working groups to advise and support on developing an inclusive approach towards these workstreams.
- Secondly, an Inclusivity Toolkit was developed along with supporting guidance for use by the environmental sustainability working groups in developing and evaluating relevant projects and actions.
- Finally, inclusivity assessment was built into the development of the Outline Business Case Template to be used to assess projects for focus and progression by the SIGC.

Perhaps most importantly, the inclusivity assessment (or Inclusivity Toolkit), built on and expanded from equality impact assessment templates to include socio-economic status etc. This inclusivity assessment 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 for refinement. Problems of use arose in accessing data of impact, understanding which groups could be impacted by the ES projects and actions, and ascertaining who and how to consult with impacted community voices to ensure inclusivity. Whilst feedback on the concept of such an impact assessment tool was welcomed by Commission members and during the Report consultation process, it was also recognised that there was a lack of an evidence base on how such a tool could achieve core EJ objectives. This research is a direct consequence of the distributive and procedural EJ issues encountered with the inclusivity assessment in the context of the SIGC workplan.

CO-PRODUCTION

At the heart of emerging EJ dialogue is the need for co-production around ES policy and decision making. Indeed, an impact assessment framework around ES calls out for a co-production approach to understand distributional impacts and procedural justice around decision making. White et al have suggested a working definition of co-production (formed from a systematic review of literature in this area):

> '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' (White & Ross, 2023)

Central to the environmental justice movement is an emerging call 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 (Lane, et al., 2011; Braun, 2015; Rice, et al., 2015; Watson, 2014; Perry & Atherton, 2017; Forsyth & McDermott, 2022). Djenontin and Meadow (2018) 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'* (p886). Therefore, this form of participatory and inclusive knowledge generation is a form of co-production which seeks to engage and recognise marginalised groups to develop responses to the environmental crisis. Indeed, it is argued by Schlosberg (2012) that failing to recognise and include such groups in the environmental sustainability knowledge and development process *'results in a status injury to a group, identity, or community'* (p453). In recent years, the dialogue and interest has increased around a co-production approach to knowledge production in climate sciences and more broadly in environmental management and governance (Lemos & Morehouse, 2005; Visbeck, 2007; Ziervogel, et al., 2016; Wamsler, 2017; Djenontin & Meadow, 2018).

Discussion of co-production in the context of environmental justice has not only sought to address issues of community participation 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 (Tubridy, et al., 2022). Equally, proponents of 'deep co-production' in relation to environmental science argue for the need to go beyond accepted understandings of how marginalised groups are impacted by environmental crises, to assess who makes up such groups and how such groups may feel unable to engage due to circumstances. We need to engage with marginalised communities to better understand what environmental risks exist which may mean reformulating understanding of existing assumptions of risk and community (Forsyth & McDermott, 2022). As far back as 2003, Corburn suggested that co-production in the environmental context should be viewed as distinct from conventional community participation as the scientific knowledge base around the environment crisis is often viewed as immutable (Coburn, 2003). The failure to incorporate multiple knowledges beyond the traditional science perspective may also risk exacerbating environmental inequalities (Tubridy, et al., 2022).

Whilst some elements of the media may suggest that environmental problems can simply be solved by providing better information to the public, this ignores recent findings that increased knowledge does not necessarily change behaviours. Thus, some are advocating a means of 'engaged scholarship' or co-production in which the public are engaged in developing understanding and providing responses to environmental issues (Raphael, 2019).

Many of the barriers to effective co-production lie in the 'asymmetry of power in environmental decision-making partnerships' (Bell, 2008). Others have reported that participation is often viewed as a battle against policy makers in the environmental arena (Dargan, 2004) and participation and nods to environmental justice are

tokenistic and based on immoveable assumptions about issues and solutions (Bell, 2008). In the IPPR 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. The EJC clearly pointed to the need for communities to play a meaningful role in environmental decision-making (Environmental Justice Commission, 2021). 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 (Raphael, 2019). Similarly, co-production around EJ is criticised as failing to affect policy when it presents a challenge to existing political and economic interests (Dutta, 2015). Thus, ensuring diverse participant discussion on equal terms with accessible information avoiding enforced agreement is necessary. It is also worth recognising that a key challenge to co-production is that even with good intentions, principles are often aspirational because we do not operate in a vacuum outside of structural inequalities. As observed by Farr et al (2021, p. 1) 'trying to maintain all principles of co-production within the real world of structural inequalities is a constant challenge, often remaining for now in the realm of aspiration'.

Emerging dialogue also suggests that there is a need to work with communities on their own terms and that the mainstream environmental movement becomes more socially inclusive and representative or all sectors of society so that there is a better understanding of the impact of the environment crisis on the most marginalised communities (Bell, 2008). Tubridy et al (2022) 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.'* (p7)

In 2023, White & Ross (White & Ross, 2023) published a set of principles of co-production based on a systematic literature review, semi-structured interviews and workshops with practitioners and experts by experiences. This will be used to underpin the research around how to develop a toolkit approach for EJ at a sub-regional level:

1. *Embed Co-production*: Co-production should be embedded from the beginning to the end of the project when possible. When feasible co-production should be embedded at different stages of a project, and at all levels including strategic, governance, and operational, across areas of public relevance. For example: opportunities to engage across the life course of a project such as being involved in bids and project plans, co- evaluate projects, co-commission services, co-design systems, dissemination.

2. *Plan Appropriate Infrastructure and Resources:* Co-production needs to be rooted in the structure of organisations. Co-production should be supported by organisational systems and processes in addition to necessary resources for effective sustainable practices. Training and support may be needed to embed co-production in organisations. For example: Human resources policies, reward and recognition policies, long term funding opportunities.

3. *Promote Equality, Diversity and Inclusion:* Co-production should be an accessible opportunity, where difference between people is valued and

respected, and practices are inclusive. A range of opportunities for those with lived experiences and other relevant stakeholders should be provided to celebrate difference and recognise the different skills people have and contributions that they can make. For example: outreach work through networks to reach marginalised groups, inclusive and flexible methods and formats for involvement reflecting personal and challenging circumstances.

4. *Build Empowering and Equal Relationships*: Co-production should be underpinned by trusting, respectful, and empowering relationships. Co-production should focus on the value of reciprocal knowledge exchange and collaborative decision making between those with lived experience and other stakeholders to meet shared responsibilities as equal partners. For example: openly challenge stigma and assumptions, promote conscious presence, promote empathy not sympathy when people share experiences.

5. *Foster Open and Transparent Communication*: Co-production should be based on honesty and transparency. Co-production should be supported with approaches that foster active listening, wider awareness and deeper understanding, informed decision making, and collaborative production of policies, plans, and outputs. For example: construct clear role descriptions and person specifications, avoid jargon and acronyms, identify any need for confidentiality and why, be clear about limitations, manage expectations.

6. *Provide Ongoing Support*: Support should be made available for those with lived experience and other stakeholders who are involved with co-production. It is important that support is available for those with lived experiences and other stakeholders to opt into based on individual and collective needs to help ensure safety, development and wellbeing. For example: peer to peer networks, skilled facilitation, training, mentoring, building on existing skills, sharing next step opportunities, crisis support, emotional support and awareness of advanced support services, maintaining communication.

7. *Learn, Reflect, Adapt with Partners*: Co-production should be an ongoing and collaborative learning process. Co-production should be supported by collaborative knowledge shared across networks, reflexivity, and piloting of alternative approaches to enhance practice. Those involved in co-production should be able to recognise when an idea is not working and use this as an opportunity to grow and move forwards in an alternative way. For example: share and celebrate impact and lessons learnt, disseminate learning through webinars, reduce duplication through mapping what is known.

8. *Share a Vision of Meaningful Change*: Co-production should be recognised as a social movement. Co-production should be a catalyst of a movement of positive social change, with those with lived experience and other stakeholders seeking opportunities to build a far-reaching network of influence. For example: influence organisations locally, nationally, and internationally across diverse sectors. Encourage others to embed co-production by sharing its value and impact.

It is also appropriate briefly to consider the UK human rights framework's role in promoting and protecting marginalised communities from environmental inequalities. A strong connection 'exists between environmental justice and the application of human rights to environmental issues' (Bell, 2024, p. 62).The European Convention on Human Rights (and the subsequent Human Rights Act 1998) does not itself provide for specific reference to environmental rights. However, there have been several notable cases in which individuals have utilised the protections of the ECHR in the European Court of Human Rights ('ECtHR') to challenge national governments in relation to failure to implement and enforce laws to protect the environment. In particular Article 6 (the right to a fair trial), Article 8 (the right to respect for private and family life) and Article 13 (the right to an effective remedy) have been used in the ECtHR to challenge member states in environmental matters (ClientEarth, 2023). Indeed, in recent years the ECtHR has ruled on over 300 environment related cases and the European Convention on Human Rights has also been used by campaign groups at national level to encourage national governments to increase moves to tackle climate change (Council of Europe, undated).

According to Orellana (2021, p. 344) one of the earliest cases encompassing the integration of human rights and environment to come before the European Court of Human Rights was *López Ostra v Spain* (1995). In this case, the plaintiffs complained about an unpleasant smell coming from a tannery nearby and this tannery was approved by the government. The applicants argued that this was an environmental issue and an infringement of their right to enjoy private life (Orellana, 2021). The court gave judgment in favour of the applicants and held the Spanish government responsible. In April 2024, the European Court of Human Rights in *Verein KlimaSeniorinnen Schweiz and Others v. Switzerland* (2024) held that the climate polices of Switzerland breached human rights. Hence, due to the various decisions of the European Court of Himan Rights, some argue that the European Convention on Human Rights should be seen as a living instrument that is used or interpreted to reflect the realities of the current times.Furthermore, Kenny (2023) suggests that several human rights-centred climate lawsuits instituted in the UK have largely relied on the European Convention of Human Rights especially the rights to life, private and family life which are enforceable in the UK via the Human Rights Act 1998. However, some of these cases have been futile and examples include *R (Richards) v Environment Agency* (2022) and *R (Plan B Earth) v The Prime Minister* (2021). This is against the background that there is no right to environment enshrined in UK laws.

Indeed, a private member's Bill titled The Commercial Organisations and Public Authorities Duty (Human Rights and Environment) Bill (originating in the House of Lords) is currently progressing through the UK Parliament. This would seek to place a duty on commercial organisations and public authorities to prevent human rights and environmental harms, including an obligation to conduct and publish human rights and environmental due diligence assessments.

Discussion and Findings

This section of the report provides detail regarding the key findings that have emerged from an initial analysis of the desk-based research and data collected between April and July 2023. Discussion and feedback on these findings are both welcome and crucial to the further development of the emerging body of research into environmental justice in the UK. Tables 3 and 4 (below) provides a brief overview of participants setting out identifier codes that will be used throughout.

IDENTIFIER	GENDER	ROLE	SECTOR
Derek	Male	ES decision maker	Public
Walter	Male	ES decision maker	Public
Tara	Female	ES decision maker	Public
Maeve	Female	ES stakeholder	Public/private
Michael	Male	ES decision maker	Private
Alan	Male	ES stakeholder	Private
Fred	Male	ES stakeholder	Public/private

Table 3: Participant codes of semi-structured interview participants

Due to the need to protect anonymity and the small number of Interview participants, broad categories around role and sector have been used. ES decision maker has been used to indicate the participant has dedicated responsibility around ES decisions within their organisation. ES stakeholder has been used to indicate the participant has an interest but not dedicated responsibility for ES within their organisation. Broad categories of public and private have been used to indicate sector representation across the subregion.

Although, the focus groups were specifically representative of the communities referenced in Table 4 above, it should be noted that participants were also representative of other marginalised groups such as those who are disabled, older and isolated. It is acknowledged that participants faced intersectional vulnerabilities and disadvantage. Attempts were made to hold a group with young people but to date this has not been possible.

CODE	COMMUNITY REPRESENTED	NUMBER OF PARTICIPANTS
FG1	Asylum seekers, immigrants, and racially diverse communities	7
FG2	Lived or living experience of poverty and socioeconomic deprivation	12
FG3	Rural communities	8

Table 4: Participant codes of Community Engagement Focus Groups

The key findings considered in this report are presented and should be read in the context of existing literature on environmental justice, equality, and co-production more generally (see 'Theoretical Context' above). As such, the following provides a descriptive and comparative analysis of the data collected in relation to the sub-regional, national, and international dialogue in this area.

Data was collected via a series of semi-structured interviews and focus groups over a 4-month period from April – July 2023. As above, purposive and convenience

sampling was used for the purposes of engaging interview participants and utilised the researcher's sub-regional network from the SIGC and beyond. 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. To preserve anonymity of participants and their organisations, reference will be made in broad terms to those engaged in the private or public sector.

In addition, three focus groups were held between June and July 2023. Crucial to the involvement of community groups within this project was the community partnership that have been developed between the researchers and Cheshire West Voluntary Action (CWVA). Together, the researchers and CWVA have developed the Principles for Co-Production (White & Ross, 2023) 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 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.

The organisations represented by interview participants all had some remit and dedicated provision for ES. The participating public sector representatives described organisational sustainability activity around planning, estate management, waste and recycling, staff and user provision, education, wellbeing, biodiversity, green space, procurement, external liaison and networking, climate emergency, decarbonization and net zero strategy, transport, housing, local economic development, natural capital etc. Those interview participants representing the private sector similarly described organisational sustainability activity around planning, waste, and recycling, decarbonization, climate change and net zero, transport, distribution, raw materials, packaging, supply etc. All those interviewed had experience of networking and collaboration on ES issues beyond their own organisation.

The findings in this section are outlined and discussed in relation to key themes that emerged from analysis of raw data. These findings are based on an analysis of data gathered from:

- Three Community Engagement Focus Groups with those with lived or living experience of poverty, immigration/asylum seekers and rural communities.
- Seven individual semi-structured interviews with stakeholders and decision makers around environmental sustainability across the subregion including representatives from the private and public sector.

Definition and understanding of 'environmental sustainability'

Whilst focus group participants didn't explicitly seek to define 'environmental sustainability' ('ES'), they did discuss examples of ES in relation to lived or living experience (see below). However, interview participants were specifically asked to articulate their understanding of this term on the basis that they were all either working to some degree in this area or could be expected to have had some previous experience of use of this term. The literature clearly demonstrates that ES is a broad and fluid term which does not have a standard accepted definition (Ruggerio, 2021). This was supported by interview data with both public and private participants referencing the increasingly broad and fluid nature of the term:

> 'It's not something I can give a one word or one line answer to…. not a one-line answer…but we're doing a lot there…' [ALAN]

> '…so many different interpretations in so many different contexts' [WALTER]

Rather than seeking to provide a definition of ES, some participants instead listed activities which they considered to be examples of ES. One participant (Alan) described in detail the ES activities that his organisation had rolled out around encouraging biodiversity, engaging in education activities with local charities and schools, educating staff, implementing a more sustainable production and distribution strategy as well as introducing a staff transport policy to ensure greater focus on mitigating environmental impacts. Another (Fred) gave a very specific example of ensuring ES through the logistics process by greater focus on alternative fuel for distribution transport and more environmentally friendly distribution routes and methods within manufacturing. Providing examples of complex fluid terms in research is not unusual (Davies, 2019; Davies, 2018). Indeed, the necessary lack of a definition may be one of the difficulties faced in bridging the gap in understanding around the ES agenda (Morelli, 2011; Ruggerio, 2021).

Some referenced the need to consider sustainability beyond the environmental focus and recognised that this required an intersectional focus on economic, social, and environmental sustainability:

> 'Sustainability for us has many angles...we need environmental sustainability…we need economic sustainability…we need sustainability for our businesses as a whole and our people' [ALAN]

> 'This is a big question because we can get into a whole thing here around environmental sustainability because I spend a lot of my time going that sustainability isn't just about the environment.' [TARA]

> 'Sustainable development…I mean that's about the triangle of economic, social and environmental' [MAEVE]

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 (Atapattu, et al., 2021; Martin, et al., 2020; Menton, et al., 2020).

Those participants who had a role within their organisation with a majority focus on ES, were more likely to seek to provide a definition of the term whilst still recognising

the difficulty in seeking to provide this. Some participants sought to define ES in terms of finite resource and the need to seek to develop and grow within the limits of our environment:

> ‘[ES is]…operating within the environmental limits that we have.’ [DEREK]

> ‘It’s not overstepping and overusing the resources that are available so that they can replenish themselves…it’s the environmental limits or the planetary boundaries….in order for the planet to be environmentally sustainable, we need to be using resources renewably and not overstepping the natural resources that we have available on the planet’ [MAEVE]

> ‘It’s simply getting to the point where we are no longer degrading the environment…and we are working in concert with the resources that we have available to us rather than exceeding them and degrading that environment’ [WALTER]

One participant referenced the ‘doughnut’ model of social and planetary boundaries (Raworth, 2017) which seeks to consider ES via Rockstrom et al’s (2009) theory of the environmental ceiling consisting of nine planetary boundaries beyond which lie unacceptable environmental degradation and potential tipping points in Earth systems. Raworth argues that the environmentally safe and socially just space in which humanity can thrive exists between the social boundaries derived from the agreed SDGs (United Nations, 2015) and these planetary boundaries. This theory supports participant focus on the need to ensure a broader understanding of sustainability to ensure humanity can thrive within the limits of our environment. This is supported by the wider literature seeking to provide a general definition of ES (Ruggerio, 2021; Morelli, 2011).

Challenges to environmental sustainability

Interview and focus group participants were encouraged to discuss in general and specific terms their perceived greatest challenges to ES. Interview participants were encouraged to consider this from their personal but also organisational perspective. Focus group participants were asked to explore their broader concerns regarding the environment as well as local environmental challenges.

Unsurprisingly, most interview participants referenced the climate crisis as the biggest challenge to ES and linked in the biodiversity crisis as well as the need to transition to a low carbon economy and society. Climate change was perceived as a dominant personal and organisational challenge both globally and locally. The literature supports this as a central concern (Knox, 2018; Scandrett, 2016; Kazmierczak, 2016). One participant suggested that the government and media focus on the climate emergency together with global and national targets and policy focussing on the climate crisis have ensured this is high on the agenda for most public and indeed private sector organisations:

> ‘We’ve set climate change targets to respond to that, so I think certainly in terms of climate change…this is very much higher up on the agenda…[and] are increasingly recognised by the authorities as being a challenge’ [DEREK]

Equally, this participant felt that other environmental challenges were still emerging and were less well understood and mitigated:

> '…in terms of the other environmental issues, we are responding in a way that we can. We're still learning how to respond to it…I think we're slightly less developed but we're working out our way through…' [DEREK]

For Derek, this 'less developed' response was more obvious in relation to local environmental concerns such as air quality and green space.

Whilst it was largely considered that the climate emergency had a high profile with a developed action plan, others did express concern that the global and national targets set in this area would not and could not be met unless considerable change occurred:

> 'We're still not accelerating actions fast enough to hit the targets that we need to the 1.5 degrees by 2050. We're not gonna hit that…' [MICHAEL]

> '…climate change, of course, is probably the burning flashing red issue…If the temperature rises ridiculously, like we're against the Paris Agreement was 1.5 degrees. But we're probably looking like we're overshooting that by 2050.' [MAEVE]

It was suggested that people tend to perceive the climate change challenge as too big an issue for them to address at an individual level. This is supported by the wider literature in this area (Campbell, 2006; Aitken, et al., 2011). This also links into the definitional difficulties around a broad concept of ES:

> 'I think it's quite difficult when you have just got the term environmental sustainability…what are we talking about, climate, climate change, biodiversity…all types of decarbonisation…are we talking about…the health of rivers? Like it's just so broad' [MAEVE]

Similarly, others felt that the focus on big distant issues around the climate emergency resulted in individuals personally detaching from the importance at a local level:

> 'The kind of conversations…about climate change have always been so focused on…the ice caps are melting, or our polar bears won't survive…and it's those kind of big far away distant physical geographically and temporarily [issues]. Whereas actually some of these impacts are much closer to home, but because they're just part of a smaller process, they're not really seen.' [TARA]

> 'I think we face a major kind of challenge in terms of, you know, people being able to influence the climate. I think there's a real challenge with people feeling like it's simply too big of a problem for them to be able to influence in their day-to-day decisions.' [WALTER]

Equally, one participant felt that most people in the UK could not fully comprehend how the impact of climate change on the rest of the world could impact upon them when it didn't currently impact their daily lives:

> 'We farm from all over the word in some really remote parts and deprived parts of the world, the impact climate will have on this is going to have a huge impact on us...' [MICHAEL]

Several participants perceived that concern regarding the climate emergency and a call to action on ES only occurred when the impact of climate change was directly experienced but that this was soon forgotten when the event dissipated without any recognition of the long-term consequences:

> ‘I still don't think we've got a full kind of grasp of what that will mean in the long term…those 40 degree summers are becoming more frequent…You know, one day last year was one thing, but if that's lasting for a week, five weeks and I think of the impact of that on different community groups, particularly at the time now when energy prices soaring through the roof.’ [TARA]

> ‘We had last summer; we had our first day in the UK with 41 degrees highest ever and for about 3 weeks afterwards people going wow. We really need to do something here and today… it's all forgotten about so that that is the challenge.’ [ALAN]

Whilst the literature (Newell, et al., 2014; Trope & Liberman, 2010; Weber, 2015) 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 ((McDonald, et al., 2015; van Valkengoed, et al., n.d.).

Whilst the scale and inability to appreciate the personal impact of the environmental crisis was perceived as a challenge to ensuring ES, one participant suggested in line with the literature (Atapattu, et al., 2021; Cushing, et al., 2015) that there was a lack of understanding of the wider consequences of this crisis in relation to social, health and economic considerations:

> ‘The impacts for health issues… I think that's also intertwined that we don't feel it's fully understood...for me the kind of climate carbon is the big one because if you break it back down…it could be attached to so many of the other issues, social issues, and economic issues that we face both locally and globally.’ [TARA]

Linked to this, some perceived that one of the biggest challenges to ensuring ES was the unwillingness or inability of society to adapt and make the changes necessary to address the environmental emergency both at a global and local level. It was suggested that society was ill equipped to make the mental shift necessary to address challenges:

> ‘Are we trying to still kind of shoehorn old ways of working and skill sets that are actually kind of redundant’ [TARA]

> ‘The biggest challenge for society is to make the mental shift and to realise what we need to do…’ [ALAN]

Other participants referenced reticence or inability of individuals to cover the extra personal financial cost of taking action to ensure ES:

> ‘It’s the age old one. The cost of trying to fix that…how do we fix that…and still have a viable business.’ [MICHAEL]

> ‘And then then you get on to the factors which make it such a challenge, whether that's access to financial resources or otherwise…shelling out for an

> electric car is currently not feasible…so there's a million and one reasons that how society is structured make it unsustainable' [WALTER]

> 'One of the biggest challenges is that people today are not ready for a change, and they're not prepared to or not able to spend money to do things in a better way….' [ALAN]

In spite of an increasing focus on the business case for implementing ES measures and supporting the literature (Revell & Blackburn, 2005; Courrent & Omri, 2022), Alan also perceived that industry was often unwilling to take the necessary steps to ensure ES due to cost implications: 'we're aware as a company and as a business what we need to do, but it's not easy doing that if we can't get the returns that we need from an investment point of view.'

Others perceived that organisations often expressed a commitment to taking action to meet the challenges to ES but then failed to follow this through:

> 'Lots of companies have made commitments, but they're not following up with actions so until they do, we're not going to get anywhere…' [MICHAEL]

Some participants suggested that this economic and broader resistance to meeting the ES challenges by the private and public sector had been/could be overcome by external regulatory demands, procurement and targets demanding action despite initial resistance and disinclination:

> 'The investor community that I see out there is actually helping us a lot because they're demanding from us and from our parent company that we have proper ESG plans in place and what they mean.' [ALAN]

> 'We're also trying to embed a lot of these concepts into procurement and that's obviously very important.' [DEREK]

Others felt that the public sector rather than individuals should commit to meeting increased financial costs of measures to address ES challenges:

> 'Is it profitable? I have no idea. I don't care. That's what we pay our taxes for.' [FRED]

> I think it's the responsibility of the council to try and change some of those structural factors to make it easier for people to make better decisions.' [WALTER]

Whilst some reference to local ES challenges were referenced by interview participants, there was largely a focus on the macro issues such as climate change and flooding impacting upon local level strategy and policy. In contrast, the focus group participants more commonly expressed micro level concerns regarding the challenges to ES. This disconnect between community and organisational concerns may well explain why ES policy focusing on global climate issues is difficult to implement and get buy in at a local level (Campbell, 2006; Aitken, et al., 2011) (see later).

When asked to discuss their environmental concerns, focus group participants did reference some of the broader environmental sustainability challenges such as climate change, pollution, recycling problems, flooding, the importance of developing green space, green transportation, damage to eco systems, wildlife, and oceans etc.

> ‘Nothing has been done to eliminate pollution. It is the same and now intensifies’ [FG1]
>
> ‘I am concerned about wildlife and meat – people abusing animals and we are getting less and less wildlife…these are global issues…they are producing more resources and contributing to the recycling problem’. [FG1]
>
> ‘We must stop doing damage. Climate change is really important…damage to wildlife habitats and eco systems…’ [FG3]
>
> ‘Green spaces are important…they are cutting down trees to build housing but not recreating green spaces.’ [FG2]
>
> ‘I think about wildlife and all about protecting this…bigger issues like drinking water and electric cars are focused on but flowers are ignored.’ [FG2]

However, in almost all focus groups the discussion quickly turned to how these bigger issues impacted the individual participants and their local communities. Unlike the interview participants who largely discussed global ES challenges and considered how local policy could mitigate against this, the focus group participants largely started from a local perspective even when encouraged to consider the broader global issues. The need for local green space, recycling, local pollution, and transport were the key issues raised. Perhaps notable however was a different focus from FG1 participants (held with asylum seekers and immigrants). In FG1 there was exploration of how individual responsibility links to global issues:

> ‘Clothes produced cheaply end up in landfill…fashion that is not fairtrade exploit workers…they work more for less…impact on places that are producing these clothes as well.’ [FG1]
>
> ‘We need to think about wildlife through our own consumption’. [FG1]

This perhaps suggests more awareness of global and less focus on local for these community participants. Just as there is an increasing recognition of how immigrant knowledge can be of value for organisational internationalization (Kunczer, et al., 2019; MacGregor, et al., 2019), it may also be that immigrant community knowledge of ES could be beneficial in developing local policy and measures in this area.

Environmental challenges caused by the anti-social behaviour of others within the community (Corral-Verdugo, et al., 2003) and a perceived lack of community pride was a common theme in the focus groups:

> ‘Litter is a big concern – we live in an area which is popular…people don’t remove their litter. Very problematic.’ [FG3]
>
> ‘Litter is a huge problem for farmers – damage to farm stock – dog faeces creates problems’ [FG3]
>
> ‘Areas of beauty like meres – have lots of antisocial behaviour, so much mess, broken glass and bottles. Grass everywhere. Drugs raid and found lots of issues.’ [FG3]
>
> ‘Kids today want to vandalise things but nothing for them to do now….police have no control…need to get more people involved in the environment.’ [FG2]

> ‘The amount of rubbish in the canal and oil – not nice to go there. Old trollies and all sorts…if cleaned up it would be amazing. This links back to pride in community.’ [FG2]

> ‘There is rubbish on the streets – some people don’t care about the local area.’ [FG1]

The theme of the ‘other’ creating environmental problems was also repeated during the focus groups with blame for both environmental harm and a lack of action to address the emergency being placed at the door of local government and industry:

> ‘[local authority] don’t care about the rural environment at all…’ [FG3]

> ‘Tidying the rubbish up is very important…there is no longer any attempt to maintain ditches and hedges…they don’t maintain them properly’ [FG2]

> ‘It seems to only be the things that visitors can see that they focus on…they ignore hidden issues’ [FG2]

> ‘[the rubbish on the streets] isn’t being addressed really but this is better than other cities…depends where you live…’ [FG1]

> ‘[the council] start a list and if they don’t get to you on the list then you get missed off…’ [FG3]

This tendency to blame individuals and institutions for environmental problems has been questioned in emerging scholarship which asks whether a better approach is to ascribe forward looking responsibility to individuals and institutional agents to increase opportunities for environmentally sustainable development (Fahlquist, 2009).

Similarly, the need for green community spaces and an increased focus on protecting and promoting wildlife was a core concern for focus group participants:

> ‘There is a lack of open space even though there are lots of big fields, they are owned by people. You need the community space even in rural areas as often you only have footpaths.’ [FG3]

> ‘I live in [ ] and there are a lot of grass areas that are doing nothing. There are empty spaces but very few areas to play in. You need to have rough areas…they should be promoting wildflower meadows and seed for wildflowers and let the grass grow for hay and let the flowers grow.’ [FG2]

> ‘They are cutting down trees to build housing but not recreating green spaces.’ [FG2]

> ‘Green belt is important…we need to stop building in the green belt.’ [FG3]

Particularly in relation to the challenges to green space, focus group participants considered this to be a recent issue and recalled perceptions of a previous era when this had not been an issue:

> ‘Where I grew up there were park spaces, community centres and we were taught how to do this but now there is nothing like this. I learnt how to behave in my community be being in these spaces.’ [FG2]

> ‘Schools used to plant trees and watch it grow – this doesn’t happen anymore.’ [FG2]
>
> ‘Forty years ago, everything was wildlife, now I don’t bother with it all that much.’ [FG2]
>
> ‘The Countryside Code is not taught in schools anymore.’ (FG3]

Others however provided anecdotal examples of local environmental initiatives that had been successfully implemented to develop green space and promote wildlife conservation:

> ‘In [ ] now when they cut grass, they do leave circles of wildflowers and it is lovely.’ [FG2]
>
> ‘Where my son lives is a field full of dandelions – they just reseed themselves…there was a campaign last year not to cut dandelions’. [FG2]

The literature around green space and wildlife has increasingly focused on the need to move away from the ‘biocentric high horse’ and instead focus on simplistic ‘win-win’ arguments. It is also important to respond at a local level to a broader set of societal concerns around issues such as green space and wildlife conservation in order to move towards a more sustainable approach to achieving a balanced society-nature relationship (Lele, 2021).

Recycling was also considered an important local environmental issue with a concern that people, and industry often did not do this effectively:

> ‘Recycling locally – some people don’t do this properly.’ [FG1]
>
> ‘Plastic bags – we can recycle. The biodegradable bags are strong, and we need to get big companies to understand that they are producing the waste. If they are producing this for plastic bags, they can do it for other things. They should be doing it more widely but aren’t.’ [FG2]

One FG1 participant did link poor practice around recycling to poverty or a lack of awareness of the appropriate systems, particularly for those from other countries coming into the local community and suggested the need for better education and guidance. This was in line with findings in recent scholarship (MacGregor, et al., 2019; Allison, et al., 2022; Omotayo, et al., 2020).

Equally, another participant linked the need to recycle to sustainable fashion and again explored the lack of choice often presented to those from local socio-economic groups in this regard:

> ‘Fast fashion is an issue, but I am guilty as I cannot afford to buy sustainable…People in poverty have to resort to fast fashion. Those choices aren’t open. There are charity shops, but the choice is restricted.’ [FG2]

The socio-economic limitations on the ability of individuals to take personal responsibility for environmental sustainability was a concern which was explored more broadly than the recycling issue:

> ‘[there needs to be] incentives for energy efficient installation/solar panels – the incentives aren’t enough, and a lot of families can’t go for this option as they have to pay for their fuel. It is counter intuitive, but you can’t be more efficient and save until you have the money to do this.’ [FG2]

Some pointed to the need to provide financial or other incentives to people to support individual action on environmental sustainability:

> 'People go green as they are paid to go green…other countries that reward people makes it more effective…it seems like it is a British problem…but it is because they aren't rewarded for doing this' [FG2]

> 'Every other country has financial incentives to recycle. They encourage to recycle but no incentives.' [FG2]

One [FG2] participant even recounted a local scheme he had been involved with in which people with low efficiency housing were approached and offered funded work on their properties to make them more energy efficient and were then also rewarded with a further gift incentive such as a home appliance.

This supports the scholarship in this area which highlights the need to incentivize people to mitigate environmental issues via an appropriate consideration of monetary incentives (Elinder, et al., 2017) and social incentives (Abrahamse & Steg, 2013; Nguyen-Van, et al., 2021). However, the literature does caution that monetary policies may not be sustainable in the long run (Lefebvre & Stenger, 2020) and may not change long term behaviour if the incentive is withdrawn (Zaval, 2016).

However, it was also recognised in line with the literature (Dauda & Ajayi, 2022), that there were limitations other than financial ones which could prevent individuals engaging with ES measures:

> 'Solar panels have to be south facing and near the electricity substations that can take the electricity excess…we have to realise that not every house can have solar panels' [FG2]

> 'Government grants for replacement boilers etc and loft insulation is all geared towards modern properties – for older properties it isn't appropriate or available'. [FG3]

Environmental concern around local pollution (particularly of the water ways) was also raised and there was a perceived lack of local action in relation to these issues. Large industrial organisations often exacerbated and/or created the problem of water pollution:

> 'What is going into the rivers is a huge problem – poo and disease goes into the rivers' [FG2]

> 'The river is a problem – pollution in the water. It is very dirty – industrial waste in the water.' [FG1]

As above, the issue of water pollution was considered a broader global, as well as a local issue by some participants [FG1] recognising that the problem of plastic in the ocean was a fundamental problem that needs to be addressed.

Flooding was also raised as a local ES issue but there was a recognition that some action was being taken at a local level to address the impact of this:

> 'Flooding is an issue…there is bad flooding in [ ] – localised areas that aren't even near rivers now…when they had floods in [ ] it was recorded and there were things that were put in place to try and alleviate that.' [FG2]

However, by far the biggest environmental concern for all three focus groups was the issue of transport. For some the focus was on the air and noise pollution created by transport:

> 'Cars on the roads are an issue…can disturb your sleep. Impact on individual wellbeing'. [FG1]

> 'My big concern I feel is really hidden...chem trails…this is a huge issue and people don't talk about it…always been trails out of jet planes…some people say it is giving off chemicals…putting stuff into the atmosphere is bad.'[FG2]

One participant was concerned at a perceived lack of consideration around the introduction of electric cars in relation to the consequential environmental impact which is an issue in emerging scholarship (Nour, et al., 2020):

> 'The charging of electric cars is an issue – you are using energy which is toxic to produce green energy.' [FG1]

In line with the literature in this area (Xue, et al., 2021; Witchalls, 2018; Bauer, et al., 2021; Green Alliance, 2021), there was also concern regarding the socio-economic discrepancy in the implementation EV policy:

> 'Choice is limited, and it will restrict on your identity…you can't afford to buy an electric car.' [FG2]

For those living in rural communities, the lack of access to environmentally sustainable public transport particularly for older people was a core issue reflecting studies in this area (Graham, et al., 2018):

> '[there is] a lack of public transport…round here the bus only runs three times a day and there isn't even a bus stop or bus route in some places… [there is] no option other than to drive if you need to get anywhere' [FG3]

Recent rail strikes were also cited as creating an environmental impact due to the need for increased reliance on cars:

> 'I would like to use my own car less but now because of strikes I can't trust the trains. I worry about pollution, but I can't support this because of strikes…' [FG1]

A common theme emerging from the focus groups was a perceived lack of local government action on environmental issues together with apparent failings in communication. These concerns are clearly reflected in the literature both at a global and national level (Environmental Justice Commission, 2021). Participants reflected that often it was expected that local and/or national government would appropriately seek to address environmental challenges but that all too often this was either poorly implemented:

> 'It takes the power of local authorities to control things like industrial waste…by the time it happens it is too late to enforce it, or we don't have the resources to deal with it.' [FG1]

> 'Some [actions to address ES] of it is working some of it is not…if we don't do anything we won't get anywhere…if we are doing nothing it will only get worse' [FG2]

or not actioned at all:

> ‘We get Runcorn factories putting chemicals into the air and no seems to bother about that’ [FG2]

One participant felt that the media had further perpetuated negative perceptions of environmental measure implementation In line with the literature (Liu, et al., 2012), this had led to decreased confidence in policy makers and those responsible for environmental strategy:

> ‘The way environmental measures have been presented by the media is very negative…we have no confidence that they really care or are doing it for the right reasons.’ [FG2]

Similarly, this group also expressed a distrust of the information they were receiving from decision makers:

> ‘People don’t know if what they are reading is true.’ [FG2]

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 (Henderson, et al., 2020; Markkanen & Anger-Kraavi, 2019; Collins, 2014; Environmental Justice Commission, 2021). Some participants recognised that their local council has a green agenda which is set out on the website, but others questioned whether relying on communication via social media and the internet was sufficient particularly for older people, disabled people and those who cannot afford to access digital information (Lythreatis, et al., 2022). There was a strong consensus that there needed to be greater focus on ensuring accessible dissemination of information around environmental issues and measures. Another participant questioned the timing and type of information that is shared with the public:

> ‘The majority of time we only find out if it directly affects us...’[FG2]

Equally, another felt that it was difficult to get involved with the wider discussions regarding ES:

> ‘They send out information, but it is hard to get involved in wider discussions about what is of concern’ [FG1]

Some participants were aware of previous consultation opportunities on certain issues but felt that there was a lack of community engagement in this process due to concern that it was simply a ‘tick box’ exercise. Again, this view is supported by the wider literature (Henderson, et al., 2020):

> ‘You don’t go to consultation because you don’t think you will be listened to. They decide there aren’t enough people. Consultation is just a tick box.’ [FG2]

This focus group also felt that people didn’t engage with the consultation process because of ‘accessibility and understanding. Some of these issues are complicated.’ [FG2]. Another participant felt that people were disinclined to participate in discussions around local ES issues, as extremist action groups had given off a ‘bad vibe’.

Whilst the focus groups perceived poor attempts at communicating with community groups, they also perceived a lack of communication between community-based bodies such as parish councils (see later) and the local authority:

> ‘The parish council does one thing, and the local authority does something else and sometimes it doesn’t match.’ [FG1]

Equally, it was perceived that there was a lack of communication across different local government departments:

> ‘[local government departments] work in silos and they don’t work in a cohesive way. Different departments don’t work with each other, and they don’t work with the community. They don’t talk to each other.’ [FG2]

Environmental sustainability and environmental justice measures

Throughout the focus groups and interviews, participants discussed detail of some excellent global, national, and local activity around environmental sustainability. This work can clearly be referenced to inform a potential framework for future practice in this area1. Several projects aimed at addressing the impact of the environmental crisis were referenced:

SUB-REGIONAL/REGIONAL EXAMPLES OF ENVIRONMENTAL SUSTAINABILITY GOOD PRACTICE	
ACTIVITY	**DETAIL**
ZE30	https://www.packagingnews.co.uk/news/encirc-targets-net-zero-glass-bottle-production-for-diageo-15-12-2022
Encirc	https://www.glassonline.com/encirc-crowned-sustainable-manufacturer-of-the-year-at-the-tmmx-awards/ https://www.encirc360.com/sustainability/
Cheshire East Council	https://www.cheshireeast.gov.uk/environment/carbon-neutral-council/environment-strategy.aspx
Cheshire West & Chester Council	https://www.cheshirewestandchester.gov.uk/your-council/councillors-and-committees/the-climate-emergency https://www.cheshirewestandchester.gov.uk/residents/planning-and-building-control/total-environment
Cheshire and Warrington Local Enterprise Partnership	https://cheshireandwarrington.com/what-we-do/sustainability-inclusion/sustainable-and-inclusive-growth-commission/ https://cheshireandwarrington.com/what-we-do/sustainability-inclusion/cheshire-and-warrington-sustainable-inclusive-economic-plan/ https://cheshireandwarrington.com/what-we-do/sustainability-inclusion/clean-energy-projects/
Net Zero Hub	https://www.netzeronw.co.uk/
Warrington Borough Council Climate Change Commission	https://www.warrington.gov.uk/climate-emergency-commission
Chester Zoo Nature for Network Partnership	https://www.chesterstandard.co.uk/news/23614594.chester-zoo-cash-boost-help-accelerate-nature-recovery/
Chester Sustainability Forum	https://www1.chester.ac.uk/sustainability/about/community-education-and-engagement/community
UOC Activity around net zero	
The Mersey Forest Project	https://www.merseyforest.org.uk/
Go Too travel scheme	http://www.go-too.co.uk/home.aspx

Table 5:Sub-regional/regional examples of environmental sustainability good practice

Some of the activity referenced by participants was around their awareness of activity which may be categorised as EJ measures. In this regard, the following is a summary of the measures referred to which were provided as examples of activity focused on ensuring both distributional and procedural justice for marginalised groups in relation

[1] Please note this is not intended to be an exhaustive list of activity in this area and simply references and is limited to the activity referred to by participants as part of the data collection process.

to the development and implementation of ES measures. Again, this does not provide an exhaustive list of EJ activity locally, nationally, or globally but are simply derived from the data collected and which participants felt appropriate to reference:

SUB-REGIONAL/REGIONAL EXAMPLES OF ENVIRONMENTAL JUSTICE GOOD PRACTICE	
ACTIVITY	**DETAIL**
Cheshire East Council Community Flood Resilience Planning	https://www.cheshireeast.gov.uk/planning/flooding/floods-and-flood-risk/community-flood-resilience.aspx
Snow Angels	https://www.snowangels.org.uk
Climate Just	http://climatejust.org.uk/
Agenda 21	https://sustainabledevelopment.un.org/outcomedocuments/agenda21 https://www.actionsustainability.com/case_study/sustainability-tool/
GRaBS Tool	https://climate-adapt.eea.europa.eu/en/knowledge/tools/grabs https://research.manchester.ac.uk/en/persons/richard.kingston
Global Mondelez projects	https://www.cocoalife.org/ https://www.harmony.info/en-en/index.html#
Cheshire and Warrington Natural Capital Audit and Investment Plan	https://www.cheshireandwarrington.com/media/3afhecyv/c-w-natural-capital-audit-and-investment-plan-final.pdf
Green Expo 2022 and 2023	https://cheshireandwarrington.com/events/green-expo-2023/
Northwest Routes to Net Zero Summit 2022	https://cheshireandwarrington.com/events/north-west-route-to-net-zero-summit/
Poverty Inspirers	https://www.cheshirewestandchester.gov.uk/your-council/councillors-and-committees/the-poverty-emergency/how-you-can-get-involved
Warm Spaces Initiative	https://www.cheshirewestandchester.gov.uk/residents/housing-benefit-council-tax/cost-of-living-support/warm-welcoming-spaces
GMCA Co-Benefits Decision support tool	https://www.greatermanchester-ca.gov.uk/what-we-do/greater-manchester-strategy/
Net Zero Sense of Place (IDRIC Project MIP 3.4)	https://idric.org/project/mip-3-4/

Table 6: Sub-regional/regional examples of environmental justice good practice

Marginalised communities and environmental sustainability

In line with the principles of co-production, it was essential that community voices were central to this research process. Therefore, the focus groups were purposefully held with community groups who may represent those that the literature point to as often being marginalised around ES issues (Knox, 2018; Collins, 2014; Scandrett, 2016; Kazmierczak, 2016). Those participating in the focus groups were from older communities, rural communities, or were immigrants, and asylum seekers and those with lived or living experience of poverty. It is recognised that there are wider marginalised communities who were not specifically represented within these focus groups such as young people and disabled people. The data collected and discussed above in relation to the environmental sustainability challenges perceived by these community participants is therefore directly relevant to the lived or living experience and impact that such communities face across the subregion.

Similarly, an emerging theme across the interviews with core stakeholders was a clear awareness of the specific impact that marginalised communities face in relation to the environmental crisis and environmental sustainability measures. Participants referenced the specific challenges faced by government (local and national) in seeking to fund the implementation of ES measures and meet the targets set in relation to net zero. At a time when there is a cost-of-living crisis and other demands on public spending, there is a difficult balance to make when investing in ES may involve further disadvantage for those already living with socioeconomic disadvantage. Since collecting this data, the government has announced that it is revising its plans to meet net zero to recognise the higher costs of living and reduce

cost on British families whilst still meeting international commitments (Prime Minister's Office, 2023):

> 'They have to balance all these things…we are demanding that we get support, and we get this investment because I feel almost an imperative that we have this opportunity to decarbonize…and if we miss the opportunity, you know morally that's wrong as well. Equally then, we're asking government for public purse support to make that happen…the reality is that you know, there's a lot of demands on the public purse' [ALAN]

Derek explored this in terms of 'adaptive capacity' feeding into a rapidly growing body of research in this area (Siders, 2019; Barnes, et al., 2020). The developing scholarship focuses on the ability of social and social-ecological systems to adapt to change. The awareness that some groups have greater adaptive capacity to respond to the effects of climate change and the need to develop adaptive capacity for vulnerable groups has been a growing consideration since the Intergovernmental Panel on Climate Change in 2001. Derek explained that effective ES measures will require people to 'adapt the way that we live'. However, he recognised that 'different people have different capacities to be able to adapt to that'. Whilst for him this would often be financial, it also centred around social and cultural capacity. In particular:

> 'Certain communities are more vulnerable than others…those communities may not have the adaptive capacity to be able to adapt their properties or adapt how they live in order to mitigate that impact.' [DEREK]

For Derek, it was important that decision makers work with people to develop resilience to mitigate environmental impacts considering these vulnerabilities. In this regard, he provided examples of improving flood resilience for those communities particularly affected but also explored the example of 'heat stress'. For him, prolonged period of heat stress and 'on the flip side, probably prolonged periods of cold…there's a need to try and work through…those issues. There are going to be impacts on those who have underlying conditions who could be more stressed…it's about how we adapt our health services, our care services to make sure that we look out for those signs'. For Derek, those from isolated environments, lower socioeconomic groups and the elderly were particularly vulnerable to these environmental issues and therefore ES measures needed to be developed with this in mind. This was also an issue for Walter who highlighted that those facing fuel poverty and disabled people were likely to be more fundamentally impacted from the effects of climate and environmental change. The literature suggests that much of the research on adaptation focuses on income-based inequity and there is far less focus on age, disability, and race (Araos, et al., 2021). This was further supported by Maeve who warned that the elderly and those from socioeconomically disadvantaged groups were more at risk from the impact of climate extremities:

> 'Housing could be cramped or damp or have issues, particularly when there's heat waves or you know extremes of temperature…elderly people in their homes during a 40-degree heat wave…there's all the excess deaths to think about…which is worse in poor housing.' [MAEVE]

A further example of specific impact of ES policy on marginalised communities was in relation to EV and transport policy. Derek again recognised that increased focus on EV provision was often at the cost of accessible transport and did not make

‘financial sense’ to most people who were not driving heavy mileage. For him, the key question is:

> ‘How do you build solutions for people that also doesn’t necessarily revolve around EVs but also revolves around increased cycling, walking, active transport and supporting the public transport system to make sure that that is provided for them as we go forward. You can see a lot of pressure on mobility for people and poor accessibility to services as a result of that transition.’ [DEREK]

Tara supported this concern and felt that:

> ‘The switching to EVs is a very privileged position… they’re not cheap…you need to have somewhere that you can charge it, so if you’re in a terrace property this is a big issue…where do you charge?’ [TARA]

Just like Derek, Tara felt that having greater focus on environmentally sustainable efficient public transport has the potential to ‘narrow the economic divide’ in relation to transport and opportunities stating:

> ‘a social…collective solution makes things more equal…if public transport is reliable then it doesn’t matter whether you’re starting out…or whether you are a CEO and have got bags of money…you can still get on the bus and you know it’s going to get you to where to need to be…’ [TARA]

For Walter, the distribution of EV infrastructure has the:

> ‘…potential to create a kind of self-reinforcing cycle whereby you know there’s access to EV infrastructure in higher income communities and not in lower income communities…so we’re kind of shackling lower income communities to fossil fuel resources’.

This focus on the potential for EV policy to have disparate impacts on marginalised communities is increasingly being recognised by emerging scholarship in this area as seen above (Xue, et al., 2021; Witchalls, 2018; Bauer, et al., 2021; Green Alliance, 2021). Equally, equity has become an increasing concern motivating the provision of public transport with a growing recognition that public transport availability is most likely to impact the opportunities and employment of low-income people (Fan, et al., 2012; Sun & Thakuriah, n.d.).

For Walter, the local authority has a role to play in ‘gap filling…to bridge the gap between what commercially can be provided and where the social need might be’. Another participant warned against homogenising approaches towards marginalised communities. When considering the environmental impact on specific groups Maeve urged that we ask ‘who do you talk to? Are they prepped and ready to talk to you and do they understand? Are they incentivised to do it?’ She felt that although decision makers recognise that certain groups face specific disadvantages in relation to ES, there is a lack of knowledge about which community voices to engage with and how to find people to talk to. Conversely, Maeve was also concerned that those from ‘generational poverty who maybe haven’t benefited from a good education…may not fully understand the issues and who to talk to and where to go for support.’

Understanding of environmental justice

As seen above, the term 'environmental justice' is a term which has emerged in global discourse (Schlosberg, 2007; US Environmental Protection Agency, Undated) and is developing at a national level (Preston, et al., 2014; Environmental Justice Commission, 2021). As previously explored, the term is largely considered in relation to the two separate components of distributive and procedural justice. However, in recent years a more nuanced conceptualisation of the term to include other distinct elements of EJ have emerged (Schlosberg, 2007; Blue, et al., 2021; Svarstad, et al., 2011).

The focus of this research was to try and ascertain understanding and activity at a sub-regional level around EJ and importantly to seek to establish an evidence-based EJ framework for the private and public sector across the subregion and beyond. As such, stakeholder interview participants were all asked questions around their understanding of the term EJ. As above, participants in both the focus groups and interviews had explored the relationship between ES and marginalised communities. Therefore, most participants had demonstrated an awareness supporting the literature (Boyce, 2013; Neumayer, 2011; Atapattu, et al., 2021; Birthwright, 2022; Avila, 2018) that societal inequalities exist around the impact of environmental challenges and the development and implementation of ES policy.

However, when questioned on their prior awareness, many participants were not aware of the specific term 'environmental justice':

> 'That's not a phrase I'm particularly used to…so I don't know.' [ALAN]

> 'I haven't heard the term environmental justice…but I know about the environment, and I know about justice separately.' [FRED]

Others were vaguely aware of the term but had heard of it in relation to global activity and issues:

> 'You occasionally hear about it…when you go to some of the climate discussions and conversations, particularly from other parts of the world.' [MICHAEL]

> 'We would…normally think about it like climate justice, which is about how the global south in particular and…disadvantaged groups…people that aren't economically powerful…where the climate or the environment is affecting them more than other groups.' [MAEVE]

Supporting the literature (Knox, 2018), Walter referenced that EJ was largely used in relation to the 'global south' but considered that this also had resonance for local and regional activity:

> 'It…has resonance on a global scale and…speaks to the transfer of resources from…the global South to more economically developed nations. But equally it has resonance at a local and regional scale as well...we know that the impacts of climate change fall disproportionately on people without the resources to deal with that and that…applies to Bangladesh as it does to the less well-off person that's the victim of a flood…in the UK.' [WALTER]

Most interview participants (either based on educated guess work or knowledge) were able to provide a definition of EJ. In line with the literature in this area

(Environmental Justice Commission, 2021; Atapattu, et al., 2021), some participants focused on the disparate distribution of environmental impacts again largely framing this in terms of global inequalities:

> ‘[disadvantaged groups] are on the frontline of climate change with sea level rises and flooding…where they’re engaged in…primary agriculture and the crops fail and then their livelihoods are threatened.’ [MAEVE]

> ‘Those that are producing and consuming more…are probably the ones that can find a way to mitigate the impact or are not as vulnerable to those impacts.’ [TARA]

> ‘Western societies reap the benefit of cheap energy, but [other parts of the world] suffer the consequences of all the carbon that we pump out and yet we’re asking them to reduce to the same levels that we are…and they can’t afford it…How do we help them be as efficient as us but at the same time they’re going to get impacted by climate change as well…that’s where you get this probably inequality.’ [MICHAEL]

Supporting emerging discourse (Lucas, et al., 2004; Collins, 2014; Kazmierczak, 2016), a couple of participants however framed EJ in terms of distribution disparity in relation to the national or local context:

> ‘If you’ve got [solar panels] on your roof, you’ve got free energy, but you need to have a certain level of disposable income and the people that will probably need the biggest reductions might not have that disposable income to invest’ [TARA]

> ‘[EJ] has resonance on a global scale and…speaks to the transfer of resources from…the global South to more economically developed nations…but equally it has resonance at a local and regional scale.’ [WALTER]

Derek recognised that the distributive environmental inequalities were not just in relation to the environmental impact on marginalised groups but also in relation to the ES measures implemented to address the environmental crisis. This accords with the more nuanced consideration of EJ considered in the literature (Marino & Ribot, 2012; Markkanen & Anger-Kraavi, 2019):

> ‘There is an awareness that environmental impacts vary across society, that different groups will be impacted differently…so it is about us having due regard and making corrections required to ensure that…none of those groups are adversely impacted or unnecessarily adversely impacted by any changes we make to respond to environmental concerns’. [DEREK]

Derek was also the only interviewee who expanded his definition of EJ beyond distributive justice to procedural justice (Collins, 2014; Burnham, et al., 2013) and explored the need to ensure fair process in the design and implementation of ES measures:

> ‘It’s the whole process…by which we engage with people, how we design interventions…are they done in the right way…are they done with everybody in mind…as part of our core design…of an intervention that we’re going to undertake.’ [DEREK]

Environmental justice solutions

Participants in the interviews and focus groups were encouraged to explore proposals for how to develop robust and effective environmental justice measures at a sub-regional level. Some of these suggestions were based on current good practice activity and others were based on ideas formulated from their professional and/or personal lived or living experience.

Procedural justice and community engagement:

Broadly, many participants considered that there needed to be greater engagement by environmental sustainability decision makers and the community. As Derek summarised, 'you shouldn't do things to people…you should do things with people.' This people centred approach to addressing the climate and nature crisis was also at the heart of the recommendations made by the Environmental Justice Commission in seeking a people-powered plan for the green transition (Environmental Justice Commission, 2021). Other participants expressed similar support for better community engagement in this area:

> 'I think it's really important for companies to be part of the Community and to have liaison groups set up.' [ALAN]
>
> 'We need to be bottom up rather than top down.' [FG3]
>
> 'We have to be more proactive in engaging these people.' [FG3]
>
> 'You have to find a way of being able to get to people, to get them engaged…you will never get to 100% of people. You have to find a way of targeting people so that it is flexible'. [FG2]

It was felt that a 'tick box' approach to developing ES measures is often the norm and engaging community voices are an afterthought and only considered when a measure is unsuccessful:

> 'They probably haven't gone through a full assessment when they've started the [ES] project and it's kind of ended up with…a lot of public opposition…maybe it could have been avoided if they'd done a proper environmental assessment' [MAEVE]

This again had been a core recommendation of the Environmental Justice Commission report which called for a shift from fairness as an afterthought to fairness as a foundation (Environmental Justice Commission, 2021).

Similarly, Tara recounted experience of ES decisions being made by small groups of people in an echo chamber with little attempt to engage with diverse marginalised voices:

> 'So much happens with a small group of people…and you don't necessarily really get the ideas…so you kind of think the way that you always think…do what you've always done.' [TARA]
>
> 'The people that turn up are the ones that are already interested…it needs to be much broader.' [TARA]

In particular and in line with the literature (Birthwright, 2022; Sultana, 2021), some considered that community engagement needs to ensure that public and private

sector organisations develop a greater understanding of who they need to talk to when implementing ES measures:

> '…half the battle with all of this is knowing who to speak to…' [MICHAEL]

> 'We need to make sure that we are talking to the right people.' [FG3]

Some felt that organisations struggled to understand not only who to talk to but how to engage community voices and that guidance and support would be welcome here:

> 'When you ask manufacturing and industry to do it…is not their core business…they don't really have the time or the resources to go and reach out to all these different organizations, local councils, parish councils…' [MICHAEL]

> 'It's the million-dollar question [how to connect with community voices] …it's really difficult because you've got to be able to connect…' [TARA]

There was a recognition that public sector engagement with community groups was already taking place in relation to some high-level programmes such as developing flood and heat resilience as well as measures to address fuel poverty. However, Derek perceived a consistent approach as to how and when this happened was lacking. He felt that at a public sector level rather than engaging in silos, there needed to be more joined up thinking across all the strategic areas in terms of engagement including housing, transport etc as ES and inclusivity cuts across everything. This idea of local government working in 'silos' rather than in collaboration which resulting in irrational decision making was also discussed by focus group participants:

> 'Building houses next to the motorway so they can commute easier but then there is pollution from the cars impacting on asthma. Silos – each of them [local government] working separately to each other and not thinking about the impact. Those people in public health may not be consulted in the planning department…why would you build next to a road? Makes no sense.' [FG1]

Equally, at a local government level it was recognised that co-production with the community was sometimes used in relation to high-level activity and was often perceived as very effective. However, this wasn't consistently rolled out across the ES spectrum. Nevertheless, in line with the literature (White & Ross, 2023) this community liaison activity and co-production work had provided some clear and important lessons at a local level from which to build:

> 'Most programs have decent size boards with a variety of stakeholders…sort of strategy level/policy level…that's where you have the different voices…'[DEREK]

Derek also felt that ES focused community groups were often 'single issue' and didn't fully represent the marginalised elements of the community. Often the voices which you wanted to hear were drowned out:

> 'I do think the local community groups and environmental groups are also very important…but they're sort of sometimes single-issue groups' [DEREK]

This is a theme within emerging discourse. Malier (2021) has observed that largely white middle-class activists may be risking exacerbating social class distinctions by attributing blame for environmental issues to working class people which can further 'reinforce the activist's dominant symbolic position' (Malier, 2021, p. 411).

In contrast, within the private sector, it was recognised that there was generally far less attempt at community engagement in relation to developing ES proposals and activity. However, if planning was required, then this had often happened to good effect:

> 'We've just made a new planning application…and it's probably about 8 or 9 years since we had a significant planning application before and the amount of change that we've seen in terms of what we need to consider and what we need to do, it's more rigorous, it's more costly, it's more difficult, but on balance I think it helps to do things in the right way.' [ALAN]

Equally, the private sector detailed charitable activity with local communities which could be adapted to more formal community engagement in this area. Specific suggestions were made around the creation of 'liaison groups' made up of community voices which could be used as a resource for the private and public sector. Presently, these groups were ad hoc and not necessarily representative of the interests of marginalised communities, but it was felt that this could be easily developed:

> 'We're probably fortunate insofar as we're a relatively young company as part of coming to Cheshire, we were asked to form a liaison Group…so we got to know the local community around us…it's really important for companies to be part of the Community and to have liaison groups set up'. [ALAN]

> '[the liaison group] is probably associated with large developments more so than anything' [ALAN]

> '[X Company] had a panel made up of the parish council and members of the community and asked what they could do to support the community. Not just connecting when they want something.' [FG2]

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 a number of Social Development Goals (Kumi, et al., 2020).

However, Michael felt that the private sector often only really engaged with high level national and local voices and therefore the opportunity to link with community voices was lost. He felt that decision making was seen as separate to the charitable work that these organisations often engaged with at a local level:

> 'You don't really get the import from the kind of marginalised local communities…they don't really feed into the conversation…when you've got people from government, it tends to be at a high level…or a leader from a local level…its quite high level and they're interested in the big macro impacts and not what it's doing to the local [community].' [MICHAEL]

Parish councils were suggested by several participants as a means of ensuring community engagement with local government and the private sector around environmental sustainability:

> 'We [as a private company] engage with…the parish councils…from different wards will sit on the liaison group.' [ALAN]

> ‘A good example is the A41 development where 5 parish councils worked together to really challenge the local authorities on health…parish councils are working with schools as well’ [FG3]

Although mostly in the context of integrated care systems, parish councils have been highlighted by emerging discourse as a means of bringing sectors together with community voices (Carpenter, et al., 2022).

Whilst it was considered that parish councils were already being used by local government, the links and communication were not currently sufficiently developed around ES issues and beyond:

> ‘I’ve seen the results when they’ve talked about this measure or that measure and we’ve [the parish council] responded, we’ve not seen any change’ [FRED]

Indeed, some participants felt that there was a lack of trust between the community and the public and private sector which needed resolving before proper engagement could be achieved (this can be seen above in relation to lack of trust and also in the literature (Henderson, et al., 2020) (Markkanen & Anger-Kraavi, 2019) (Collins, 2014) (Environmental Justice Commission, 2021):

> ‘We [the parish councils] have consultative documents to read…but how much our local authority reads what we say or listens to what we say, I have no idea…I don’t think they listen a great deal.’ [FRED]

Beyond the parish councils the lack of trust in local government by the community was evident:

> ‘Often local authorities are not honest…’ [FG1]

> ‘Sometimes people think it isn’t worth asking for this as nothing will happen…a lot of money is out there but nobody tells us about this.’ [FG3]

> ‘Consultations happen but they take absolutely no notice at all and also people don’t take any notice of the consultation – they don’t really want to know about what the local area thinks’ [FG3]

> ‘We have no say at all on these things.’ [FG2]

Equally, it was felt that parish councils as currently formulated were not sufficiently representative of the communities within which they existed and therefore provided limited scope to ensure procedural EJ (Ryan, et al., 2018; Willett & Cruzon, 2019). Similarly, if parish councils were to be used as a community engagement hub, they would need to be representative and appropriately resourced:

> ‘[Parish councils] are not truly representative...if we take our parish council…the average age of the parish council is between 50 and 70, predominantly male, so it isn’t representative and in that way it’s actually very difficult for us to say to all the younger people…why don’t you come and talk to us…but are parish councils the vehicle to use, absolutely! But the local authorities need to think very carefully about how they do so’ [FRED]

> ‘Parish councils are difficult – they are old soldiers…you would need to reform the parish council…parish councils are not representative – no diversity and equality – there are policies, but they aren’t implemented’ [FG1]

> ‘People who sit on parish councils are older, retired, male…some parish councils link really well with local authorities, and we could develop parish councils to be more representative.’ [FG3]

> ‘[Parish councils] can be [a useful resource] …it just depends upon their priorities and the resources that the parish councils have’ [DEREK]

> ‘We’ve worked with them quite a lot and we’ve provided some resources to them around the climate emergency, so they have access to resources there and we’re trying to help and support them to identify issues that they have particular concerns about’ [DEREK]

> ‘…do the marginalised groups and the people really targeting really get involved [in parish councils] …I’m not so sure…do the people we’re trying to pull into it, really engage with the parish council?’ [MICHAEL]

One focus group felt that parish councils needed more guidance on how to engage with environmental issues:

> ‘There needs to be a toolkit for parish councils to engage in environmental issues as they aren’t engaging with the community’ [FG1]

Other participants felt that ward councillors should but often do not provide a link between the community and local government on ES issues:

> ‘…every parish is part of a ward…every ward has a ward councillor…the councillor sits on the main council meetings of the borough…now it is not beyond the will of man…to be able to say…when’s the next parish council meeting? Let’s send a representative…but they rely on the ward council reporting in…they don’t come out and look…and that’s what they really need to do’ [FRED]

> ‘…I guess the local ward councillors also have budgets, so they get a discretionary £5,000 a year or something like that…I don’t know exactly how much it is, but they can choose to spend that on anything that they would like to support the community.’ [MAEVE]

‘Adaptive capacity’ and ‘environmental resilience’ was also a strong consideration (Cafer, et al., 2022). Derek explored the need to empower communities in relation to knowledge and resilience around ES. In particular, he felt that ensuring ‘adaptive capacity’ was necessary particularly for marginalised communities facing the greatest impacts from the environmental crisis:

> ‘[we need to] start to develop…build that capacity for knowledge and it comes down to…the adaptive capacity of communities to build their knowledge, their ability to do things for themselves, their ability to work together and cooperate and come up with solutions that may well be better than the ones that we can do.’ [DEREK]

Equally, it was perceived as necessary to develop knowledge and understanding from the community in order for them to appropriately engage with co-production. This linked to the need to ensure that communities understand disparate impacts and were provided with the evidence base to empower them to work with the public and private sector to develop resilience and appropriate solutions:

> ‘You have to start in schools – you have to educate them young…you also need to target young parents as well so that they will teach their children.’ [FG3]
>
> ‘Education is needed as I’m not aware of [many environmental issues].’ [FG3]
>
> ‘You need to find out from communities what they want.’ [FG3]
>
> ‘It goes back to having pride in the community and people are more likely to get engaged’ [FG2]

Therefore, it was recognised that procedural EJ needs organisations to ensure that communities are provided with knowledge in an accessible and appropriate form. Some participants felt that the increasing focus on digital knowledge risked excluding those already most marginalised (Serafino, 2019; Wilson-Menzfeld & Brittain, n.d.):

> ‘Only about 70%...of our population have got access to the web…and we all tend to think…put it on social media…they’ll read it…no, they won’t…that’s a problem.’ [FRED]
>
> ‘Letter drops would work as people would read a piece of paper as 30% don’t use internet…but other demographics only use social media…you need to look at what is appropriate for different people to include everyone.’ [FG3]
>
> ‘You have to understand that not everyone is going to have the same level of knowledge. Letters from the council need to be more accessible and simplified.’ [FG2]

One participant with experience of working in an international organisation on ES issues, felt that we could learn from work in the global south and how industry engaged with communities in these areas:

> ‘This feels like one of those situations where I think we could learn more from what we’re doing in the non-westernized world cause there we do seem to do it [community engagement] much more…whether it’s because we’re just that much closer to the local community…we work with them more closely.’ [MICHAEL]

This is supported by the literature in this area such as (Griffin, et al., 2017; Ranganathan & Balazs, 2015).

Michael also felt that industry often failed to translate their activity in developing countries around community engagement to the national context:

> ‘Within the EU…it’s much more separate from the local community. We’re not that engaged and involved with them as we are further down the supply chain…normally we’re pushing our learnings from the EU the other way, but maybe this is the case where we do it the other way. We actually take the learnings from what we’re doing there and bring them into the western side of it’ [MICHAEL]

Existing networks such as Schools, church groups and charities were also considered an important community engagement resource:

> ‘For us it is the…schools’ element or the young people element. It’s about existing networks…church groups…or school parent groups’ [TARA]

> ‘I think going through existing groups where there is a trust and relationships are already developed and then kind of broaden and start those kinds of conversations.’ [TARA]
>
> ‘Some [community engagement] is through local schools.’ [MICHAEL]
>
> ‘[we pick up some concerns] through our community initiatives…some of the charity and work we’re doing’ [MICHAEL]
>
> ‘More attention is needed on young people being involved in the discussion…talk to young people more – they are malleable – give them opportunities. Give them more responsibility and bring in schools and college…need to start in primary school.’ [FG1]
>
> ‘Go into local schools and ask. For example, Encirc really connect with the community by inviting schools in and creating a green corridor.’ [FG2]
>
> ‘Libraries, GP surgeries, food banks, local shops, job centres, colleges, universities, schools…’ [FG2]
>
> ‘Children and schools have a lot of effect on parents – they learn and take it home.’ [FG2]

Many participants recognised that those from marginalised communities from low socio-economic groups were likely to be the most time poor and therefore less able to participate (Zuhair, 2016). As such, to ensure community engagement, it was vital that participation was suitably remunerated:

> ‘I think it’s really easier said than done, because the people who are truly the most disadvantaged are also potentially those that are the most time poor…if you’re a single mum that’s working three jobs, you’re not particularly going to be minded to spend some of your valuable time necessarily engaging with…organisations and matters that might not…seem directly beneficial to your daily life.’ [WALTER]
>
> ‘People need to be paid to complete surveys and similar…it needs to be worthwhile and…expenses and stuff and whatever it all needs to be born in mind to make sure it’s done as equitably as possible…and also it needs to be at times that are convenient to people.’ [WALTER]
>
> ‘If we don’t pay them [for participating in community engagement], then they haven’t got an opportunity to put their voice into that kind of decision-making process…it’s about recognizing the value of people’s time and paying them appropriately…because I think there’s an assumption that everyone can just give up their time for free…’ [TARA]
>
> ‘Because there are so many things going on in people’s lives, environmental issues may not be a priority….so many things going on it isn’t on their radar…we need to make it relevant to their lives.’ [FG2]
>
> ‘More links need to be made between environmental and social issues. There needs to be a recognition of poverty and social issues.’ [FG2]

For Tara it was the partnership of organizations who should meet the cost of this community engagement through means of a ‘fair fee’ and consider the ‘cost of people’s time’ when ‘developing a plan’.

One industry participant discussed how for the equivalent cost of one employee they had been able to establish a community liaison group:

> 'We've put together for relatively small amounts of money. I mean, I'm talking £5 – 10,000 and we've created …the liaison group…if you take an average employee cost to use…of £40,000 a year…so to spend the cost of one employee in our immediate local community is really relatively nothing but the benefits we've seen and the thanks we've got has been huge.' [ALAN]

Rural isolation was also considered an obstacle to community engagement:

> 'Isolation is an issue…there is no way of getting to people…how do you get community initiatives off the ground. If there is no transport, then you can't access people.' [FG3]

Equally, it was suggested that existing mechanisms such as charitable engagement, liaison groups and local government existing co-production mechanisms could be used to engage on ES issues:

> '[we need to] go to places or activities that the groups that you're wanting to engage with are already a part of…where they already are…' [TARA]

> '…using the networks that are already in place, meeting people where they are engaging with networks such as food banks and similar…would be valuable…it is getting down to that community level, making yourself available…to those people where they are rather than…where you want them to be…' [WALTER]

> 'They need to come right into the middle of the community and talk to people…rather than just doing online surveys – put physical versions of the survey in community centres where people can meet to discuss.' [FG2]

However, some participants warned against communities feeling that the purpose of the support was transactional to mine them for opinions and it could result in discouraging engagement in measures which were intended to benefit (such as warm spaces initiatives etc). As Walter noted:

> 'it's far from a perfect all-encompassing solution…. warm spaces this winter…we've been able to engage and support people…that's been one place where people who are…in need…have come together and congregated. But at the same time, we don't want to deter people from engaging with those groups…by saying…here's a survey…making it kind of artificial or identifying them as a service user…. that's not what everyone would necessarily want.' [WALTER]

Indeed, emerging discourse has warned against some of the difficulties of poorly executed co-production (Steen, et al., 2018).

Similarly, it was recognised that a range of means of achieving community engagement was necessary:

> '[we need to engage with] the wider community…get those wide board of voices. You kind of need to go in through different routes.' [TARA]

However, it was also felt that greater support for the private sector from the public sector in how to develop community engagement would be welcome as would greater collaboration between the public and private sector. One participant

suggested that a ready-made community engagement group supported by local government would be welcome:

> '[collecting information on ES and marginalised community impact] is not their core business…they're so focused on other things. They don't really have the time or the resources to go and reach out to all these different organizations, local councils, parish councils and so if there's some way that information can be collated and summarized so we can get to it quicker…and therefore be more impactful it would help.' [MICHAEL]

> 'There needs to be the creation of a hub with community voices…a good example of this is how they approached the regeneration forum with voices from various communities…they appointed people from the council to work with the community – they were objective, and they appointed facilitators. This would work. Meet once a year and work on council agenda.' [FG1]

It was perceived 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]

Again, this is supported by emerging studies (particularly from the global south) which advocate for private/public partnerships in achieving integrated approaches towards community engagement (Batidzirai, et al., 2021).

Distributive justice:

Whilst procedural justice via engagement with marginalised communities was considered by all participants as fundamental, it was also recognised that a means of accessing up to date environmental impact data on communities was equally important. Michael described this in terms of the need for a twofold process:

> '…most companies are so data driven…anything around data and that really helps sell it to industry. If you've got data fantastic…you need both actually. If you just come with the voice…industry will nod and listen…but maybe not act so quick. If you come with the voice and the data…that's the power of it…having both bits together.' [MICHAEL]

Therefore, a solid evidence base is needed to determine environmental impacts and the impact of proposed ES measures which will then assist in pointing to which elements of the community need to be engaged. This will then facilitate the sharing of knowledge with those communities to enable co-produced solutions that will empower and develop adaptive resilience. As seen above, much of the existing research in the UK has focused on frameworks for assessing the impacts of environmental decision making rather than process (Walker, 2010; Holifield, 2004).

For the private sector, this two-fold approach was seen as vital for industry buy in:

> 'You do need two things together…' [MICHAEL]

Some participants (notably those with a sole remit for environmental sustainability) referenced environmental mapping tools which had previously been developed at a regional level such as the GrABs tool, Climate Just work and Action Sustainability Tool (see above). These tools had not always been continued as funding had discontinued. Others recognised that local mapping data already exist in some core

environmental issues such as flooding and heat vulnerability and that it would be possible to map data re disadvantage onto this. However, Derek was concerned that there were other areas where consistent data was lacking:

> '…where we have good evidence…lets pull that evidence together…and agree that these are impacts and these are things that we are going to try and assess and mitigate against…I think there are certain things which we know are happening…flood risk is one…we can start to identify those areas where we have a decent evidence base, and we can agree a stance' [DEREK]

> 'Theres certain areas we have a huge amount of evidence…. but I think the other flip side, there's a huge amount of evidence that we don't have an evidence base on and there's a huge number of areas where I don't think we know what the impacts are.' [DEREK]

Some participants called for a reliable sub-regional publicly available and maintained GIS mapping tool which would provide the public and private sector with the opportunity to build and develop shared data:

> 'A mapping tool [would be useful] that they can look at their area and they can see all the layers of the different data quite easily like a GIS system.' [MAEVE]

> 'A GIA spatial tool which tries to just layer on different climate impacts and you could also layer on some of the key socioeconomic data.' [DEREK]

The use, benefits and pitfalls of such data mapping tools using Geographic Information Systems (GIS) are a core focus of emerging international and national dialogue (Kuruppuarachchi, et al., 2017; Maantay, 2002). However, much of this work focuses on major issues such as health, flood hazards and heat impacts ((Davis & Ramirez-Andreotta, 2021). Interestingly, despite calling for more effective use of mapping tools, Derek also cautioned that some things cannot be easily mapped, and this should not be a reason for ignoring potential issues:

> '…equally some things can't be mapped…' [DEREK]

Framework for action:

Whilst recognising the need for procedural and distributive EJ, participants explored ideas for a framework for action in this regard. Current EJ activity across the subregion was notably focused on public sector perspectives. Therefore, the use of Equality Impact Assessments (EqIAs) in relation to ES measures was raised. EqIAs were referenced as a means of assessing both environmental impacts on marginalised groups in terms of the development of sub-regional ES policy but also in relation to the need to engage and consult with those communities. This was supported by (Walker, 2010). EqIAs are not mandatory in England. However, it appeared from the data that EqIAs are being conducted for higher level public programmes at local authority level. When carrying out EqIAs, data is gathered on impacts and the mechanisms to engage with community groups utilised by the LAs are implemented. However, Derek states that this tends to be for high level programmes and isn't rolled out at an individual project level.

Equally, whilst environmental impact assessments are relevant for both the public and private sector, there are limited consultation requirements and environmental impact assessments required were planning obligations kick in.

It was also clear however, that there was no consistent approach to procedural or distributive EJ across the public/private sector and little awareness of the form or requirements of the Public Sector Equality Duty and EqIAs by the private sector participants.

Some public sector participants felt that the EqIA assessment approach could potentially be adapted for use by the private sector when developing and implementing ES measures. Michael felt that this could promote community engagement and ensure environmental impacts are appropriately recognised and mitigated but that care needed to be taken not to add to regulatory burdens on businesses when already pressed due Brexit:

> '…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]

> 'If I put my company hat on…they'd scream at that because of the regulatory burden we're already under….and it's got much worse for companies like us since Brexit cause everything we do is duplicate now because we're importing/exporting stuff…so there's a real hypersensitivity at the moment around regulatory things.' [MICHAEL]

However, Michael did perceive that real engagement from industry would only be achieved if such action was mandatory but then the danger with this is that it would become another tick box exercise:

> 'I think that's the only way you're really going to lever it…if it does become mandatory…industry will do it, but it'll be a tick box.' [MICHAEL]

Even at a public sector level Derek felt that it would be too burdensome to engage an EqIA approach for all ES measures:

> '…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…at project level you end up probably with one or two people working on it…[but] most programs have decent size boards…sort of strategy level policy level…definitely there.' [DEREK]

Particularly for the private sector it was suggested that any assessment tool which provided a framework to assess impacts and required community engagement on developing ES measures, would need to focus on the business case and provide the guidance and support to encourage use:

> 'I would like to say we're not profit driven but that has to be the outcome and we have to have profit to reinvest and do the right things…we have quite a lot of things to balance….in terms of us trying to get that balance is difficult…I think probably external support is important…whether that's a government body and done through the local authority or something.' [ALAN]

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

> 'Businesses – the only way to approach them is through the business case and how to make money.' [FG3]

Again, Michael suggested that any such assessment tool should not be overly onerous and introduced in stages for industry to see the benefits at each stage to encourage compliance. This would require collaboration and sharing of information across and between the public and private sector:

> '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]

Walter suggested that a metrics-based system to demonstrate tangible impact would be useful for the private sector with a financial bottom-line baseline so that organisations can demonstrate to their shareholders why they are considering marginalised communities and climate equalities and the cost and benefit of this:

> 'Some kind of a method….provide them with some kind of tangible impact in terms of the extent of change they've been able to generate through positive decisions in terms of equalities…I don't know if you could put a pounds, pence…value on it…I imagine having some kind of a defined metric of progress in relation to climate equalities would be of value to them so that they would be able to demonstrate to their shareholders…that…there is some…defined method of or measure of success.' [WALTER]

One focus group felt that a toolkit/guidance and case study approach demonstrating how environmental impacts on marginalised communities had been successfully mitigated would be a useful resource:

> 'Case studies in a tool kit are really excellent…' [FG3]

Equally, Maeve considered it important that any such assessment would also benefit from consideration of the benefits, as well as the negative impacts of ES measures, and Tara supported this:

> '…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]

Some interviewees felt that a metrics driven system would be useful but would also need to build in qualitative data and consultation:

> 'You could go through a checklist for impact on different groups. Greater Manchester is doing that…they have a tool which the Tyndall Centre created, and it looks at climate in terms of impact on carbon…health…and…on inclusion…and economy.' [MAEVE]

Derek felt that any such framework should seek to encourage focus on a few 'big ticket' issues which would offer clear wins rather than trying to do too much:

> 'Let's focus on the ones that we can do, and we know…but with the knowledge that this isn't 100% of the impacts, isn't hundred percent of the vulnerabilities…but let's crack on with what we can do.' [DEREK]

> '…sometimes you just need to get on and focus on the big-ticket issues…lets focus down on some of the big environmental impacts…and do these.' [DEREK]

Tara felt that any framework should be built upon and utilise existing processes to avoid any additional layers of obligation:

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

Similarly, Derek suggested a tool which could determine impacts based on existing data and could illustrate some examples of equality impacts and suggest how potentially mitigations could be put in place. This could draw on best practice that already existed. However, he considered that any automated tool would need to operate in conjunction with support on engaging and talking to people about their lived or living experience. Moreover, this could be a piece of software or a bank of resources with processes and information to help facilitate and illuminate and draw out those potential impacts:

> ‘I would certainly like a tool that could, you know, could take inputs from me in terms of, you know, these are the likely stakeholders. These are the changes that are proposed or are potentially involved in this area of work and could illustrate some of these examples of equality impacts that could arise from the changes proposed. I am not saying it is an AI type proposal but something that could draw on best practice...and then go that one step further into how potentially mitigations could be put in place…I think that some kind of automated tool could help facilitate that process, but it wouldn’t replace the need to actually engage and speak to people and understand their lived experience.’ [DEREK]

> ‘…where it’s a piece of software…or just a bank of resources with processes and information…something to help facilitate and illuminate and draw out those potential impacts would be for sure useful.’ [DEREK]

Several participants in the interviews and focus groups called for any such framework to be implemented at the design stage of project planning and policy and investment decisions. This is supported by existing EJ literature (Environmental Justice Commission, 2021):

> ‘…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’ [FG1]

> ‘We want to be involved in making the decision…’ [FG3]

> ‘Find out what people want and then build up…ask questions don’t impose – people are an afterthought.’ [FG3]

Maeve also suggested the introduction of a charter as a means of encouraging rather than forcing participation in an assessment tool to focus on the reputational and business case of an EJ process:

> ‘Hopefully the private sector wants to move to a space where they’re being seen to do the right thing…not just for profit but because…[they are] forward thinking companies who are showing that they’re caring about the environment and about people…I guess it’ll help their public reputation…so one of the things…is the Fair Employment Charter and if we had a charter one of the bits within it could be that they need to look at…inclusion…it can address environmental sustainability’ [MAEVE]

Conclusion and Pointers for Action

The findings presented in this report have implications for the development of a framework for EJ for use by environmental sustainability decision makers at a sub-regional level and beyond. The following summarises the key findings and concludes with recommendations with a view to developing a robust framework for action which can be piloted and assessed in follow up research.

Summary

The term 'environmental sustainability' is a broad and fluid term and there is no standard accepted definition. This fluidity of terminology was expressed by participants. Most participants provided descriptions of activity they perceived to exemplify ES rather than seeking to define it as a concept. Some also focused on sustainability beyond the environmental focus and noted the need to apply an intersectional lens on economic, social, and environmental sustainability. Some participants also sought to define ES in terms of finite resource and the need to seek to develop and grow within environmental limitations. Those whose role centred on ES activity where more likely to attempt to provide a definition but ultimately recognised that there was no single approach.

Most participants expressed perceived challenges to ES. Many referenced the climate crisis linked to the biodiversity crisis, as well as the need to transition to a low carbon economy and society. Climate change was perceived as a dominant personal and organisational challenge both globally and locally. 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 were less likely to have mitigation responses in place. However, the climate change challenge was also perceived to be too big an issue for most people to address and equally as a distant issue 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 consequences. Similarly, there was a 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 had 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 was a reticence or inability of individuals and/or the public and private sector to meet the additional personal financial cost of ES action. Focus group participants from marginalised communities were more likely to express micro level challenges to ES (such as local pollution, recycling problems, lack of local green space, poor access to environmentally sustainable public transport etc) whilst interview participants were more likely to focus on macro issues such as climate change and flooding. This disconnect between community and organisational concerns may well explain why ES policy focusing on global climate issues is difficult to implement and achieve local buy in.

Focus group participants also referenced the impact of anti-social behaviour as a challenge to ES and focused on the theme of the 'other' creating environmental problems. They noted that blame for environmental harm and a lack of action to

address the climate emergency was placed on local and national government and industry. The socio-economic limitations on the ability of individuals to take personal responsibility for environmental sustainability was a concern and some suggested the need to provide financial or other incentivisation to support individual ES action. 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 had led to decreased confidence in environmental decision making and community disengagement with environmental issues. There was also a perceived lack of communication across different local government departments.

Despite recognised and perceived challenges to ES, participants were also able and willing to provide some excellent exemplars of global, national, and local activity around ES. Some of the activity referenced by participants was around activity which could be categorised as environmental justice focusing on ensuring both distributional and procedural justice for marginalised groups in relation to the development and implementation of ES measures.

In line with the principles of co-production, it was essential that community voices (and particularly marginalised communities) were central to this research process. Similarly, an emerging theme across the interviews with core stakeholders was a clear awareness of the specific impact that marginalised communities face in relation to the environmental crisis and environmental sustainability measures. It was recognised by most that at a time when there is a cost-of living crisis and other demands on public spending, there is a difficult balance to make when investing in ES. This may involve further disadvantage for those already socioeconomically disadvantaged. This was explored in relation to the emerging dialogue around ‘adaptive capacity’. It was recognised that some groups have greater adaptive capacity to respond to the effects of the climate emergency and that there is a need to develop the adaptive 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. 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 perceiving the need for greater focus on environmentally sustainable efficient public transport which had the potential to narrow the economic divide. Equally, there was 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 accessible transport. It was considered that local government has a core role to play in supporting socially sensitive environmental sustainability decision making but that caution should be exercised to avoid homogenising approaches towards marginalised communities.

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 (as above) recognised that societal inequalities exist around the impact of environmental challenges and environmental sustainability decision making, there was little recognition of the specific term ‘environmental justice’. The few participants who had an awareness had only previously linked it to global activity and issues rather than to local and regional

activities. A few were able to frame their awareness of EJ in terms of distribution disparity. Only one participant explored EJ in terms of the need to ensure fair process in the design and implementation of ES measures.

Participants were encouraged to explore proposals for how to develop robust and effective EJ measures in relation to ES decision making. Many participants recognised the need for greater community engagement by ES decision makers. A person-centred approach was suggested rather than a 'tick box' approach to developing ES measures with community engagement leading the decision-making process rather than being an afterthought. It was also suggested that public and private sector organisations seek to develop a greater understanding of 'who' they need to talk to when seeking to develop ES measures rather than discussing in an 'echo chamber' lacking in diverse representation and in which marginalised voices were often drowned out. Equally, organisations not only needed to develop understanding of 'who' to engage but also 'how' to engage community voices and that guidance and support was needed in this regard. There was some recognition 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 strategy and inform decision making, it was considered very effective. It was perceived that the private sector had attempted little community engagement in relation to ES decision making. However, in situations (such as planning) which required this and in relation to global activity, this had often been rolled out very effectively. Several examples of community engagement in relation to charitable activities and the development of 'liaison groups' was provided. Whilst much of this private sector activity lacked consistency and was ad hoc, this could be easily adapted to provide for greater engagement on ES decision making.

Parish councils were also referenced as a means of ensuring community engagement with local government and the private sector around environmental sustainability. Whilst parish councils were already being used by local government, it was recognised that the links and communication were not sufficiently developed around ES measures. Equally, i parish councils, as currently formulated, were not sufficiently representative of the communities within which they exist and are under resourced and informed as a means of ensuring procedural EJ. Added to this is the need to develop greater trust between the community and the public and private sector before proper engagement could be achieved.

Once again, the need to resource and support the building of community knowledge and resilience around ES was referenced as a means of mitigating the impact on marginalised communities of the environmental crisis. To ensure meaningful co-production of ES decision making, there was a need to build community knowledge and understanding to empower marginalised communities to work with the public and private sector to achieve equitable and appropriate environmental solutions. One participant felt that industry and local government could learn from EJ activity and engagement with communities in the 'global south' in this regard.

Existing networks and liaison mechanisms such as schools, church groups and charities were considered important community engagement resources and a link to accessing marginalised voices. Many participants however recognised that those from marginalised communities and particularly those from low socio-economic groups were likely to be the most time poor and therefore less able to participate.

Therefore, to ensure representative community engagement, participation must be appropriately recognised and remunerated. Similarly, access to community voices should be achieved via existing mechanisms to avoid additional obligations. However, caution was urged to ensure that communities would not feel obligated or discouraged from engaging in community support activities by feeling forced into community engagement activities on ES.

Private sector participants felt that local government could provide a supporting mechanism to engage in community engagement and that industry would be far more likely to engage with communities if provided with an easy means of collecting community views.

Whilst procedural justice via engagement with marginalised communities was considered by most participants as fundamental, it was also recognised that there needed 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 needed to be engaged in the decision-making process.

Some participants referenced existing environmental mapping tools that had previously been developed at a regional level. Others referred to local mapping data which existed in relation to core environmental issues such as flooding and heat vulnerability and felt that it would be possible to map data re 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.

Considering this recognition of the need for mechanisms to ensure procedural and distributive EJ, participants also explored ideas for an EJ framework for action on ES decision making. Existing focus on EJ across the subregion was in relation to the public sector. Therefore, the use of Equality Impact Assessments as a means of developing an EJ approach to ES was referenced. It was considered that EqIAs (if used effectively) could support distributive and procedural justice in ES decision making. EqIAs are not mandatory in England, and it was reported that whilst they were being used by local authorities in relation to high level public programmes, use beyond this was ad hoc and inconsistent. Equally, it was perceived that environmental impact assessments were of little use in ensuring EJ beyond some limited consultation requirements. Some participants felt that EqIAs could be better used to ensuring EJ in relation to ES decision making across the public sector. However, it was perceived that it could be too burdensome to engage an EqIA for all ES decision making. Some participants felt that an EqIA approach may be of benefit to private sector ES decision making but that a clear business case would be needed to ensure voluntary engagement in this regard and substantial guidance and support would be required. 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. A metrics-based system to demonstrate tangible impact would be useful for the private sector with a financial bottom-line baseline provided to demonstrate the cost benefit of engaging with, and assessing the impact on, marginalised communities of ES actions. A case study approach demonstrating how environmental impacts on marginalised communities had been successfully mitigated would be useful for both the private and public sectors; this should demonstrate the benefits as well as the negative impacts of ES measures. Many

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

This research seeks to argue that used properly, there is significant potential for a tool developed from an EqIA framework to be utilized to address both distributional and procedural justice in environmental decision-making. This would build on approaches already being taken in higher level decision-making at local authority level and could be adapted for private sector use. It is argued that an approach based on guidance developed from the public sector duty under the Equality Act 2010 would ensure a simple two-pronged solution to EJ. It would also require adaptation to recognise marginalised communities beyond the listed protected characteristics such as those from low socio-economic groups, asylum seekers and rural communities.

This research has sought to use reflections on EqIA guidance and practice, co-production principles, lessons from the Inclusivity Toolkit implemented by the SIGC, obligations under the Public Sector Equality Duty and the data collected from research participants to inform a justice centred framework for environmental sustainability decision making across the public and private sector. Based on this, the following action points are aimed at key stakeholders and decision makers in this area.

Pointers for action

The data has demonstrated that (despite some evidence of good practice) there is a lack of understanding and consistency in relation to ensuring an environmental justice-based approach to decision making around environmental sustainability. Therefore, based on the existing literature and this report, these pointers for action are presented below.

General

I. There is a need to develop a public and private sector Environmental Justice Framework to inform environmental sustainability decision making at a sub-regional/regional level. To ensure familiarity and coherence with existing public sector processes, this Framework should be underpinned by principles of co-production and existing approaches to Equality Impact Assessments and the Public Sector Equality Duty (pursuant to section 149 Equality Act 2010). This Framework will provide a holistic environmental justice approach to each stage of the environmental sustainability decision making process. The Community Engagement Hub and data from the Environmental Justice Mapping Tool (below) could be used to draw community voice and impact data together under this Framework. This Framework can be supported by case studies and wider support promoting good practice guidance in this area. This Framework should:

    a. Provide an accessible resource for the public and private sector.

    b. Not be excessively onerous and encourage contextual responses including recognising use of existing networks.

    c. Be based on clearly defined co-production principles.

    d. Inform and support the business case.

e. Recognise the value of community participant time via appropriate compensation mechanisms.

II. Public and private sector organisations would benefit from an accessible and maintained Environmental Justice Mapping Tool which would assess the impact of the environmental crisis on distinct marginalised groups at a sub-regional/regional level and assist with the assessment of impact as set out in the proposed Environmental Justice Framework. Initially such a tool could be developed from existing data (for example local data around flooding and heat risk) and enable the sharing of data collected by both public and private sector as part of an impact assessment process set out within the Environmental Justice Framework. This mapping tool would also benefit from inclusion of data on the impact of environmental measures on marginalised communities. Existing tools could be used as a basis for further exploration. It is proposed that this could be co-funded and maintained in partnership by local government and industry.

III. Public and private sector organisations would benefit from a Community Engagement Hub at a sub-regional/regional level with a focus on environmental sustainability to assist public and private sector organisations with consultation and co-production as set out in the proposed Environmental Justice Framework. Existing links with groups such as Parish Councils and liaison networks could be used as an initial base to establish an appropriate network. Community participants must be compensated and there must be a broad representation of community voices to ensure representation of marginalised communities. It is proposed that this could be co-funded and maintained in partnership by local government and industry.

Local Government

The data points to significant public sector gaps in environmentally just approaches to environmental sustainability decision making. Many of the following action points will be addressed by the proposed Environmental Justice Framework. Therefore, at a sub-regional and regional level it is recommended that local government:

I. Promote and ensure greater public sector understanding of environmental justice and recognition of environmental inequalities.

II. Seek to develop more robust links and communication between local government and marginalised communities on environmental sustainability challenges. This communication should focus on ensuring engagement with diverse and marginalised communities including, but not limited to, those groups currently protected by the Equality Act 2010 and those from socio-economically disadvantaged groups. Care should be taken to avoid homogenising approaches towards marginalised communities.

III. Develop strategies to address a perceived lack of joined up thinking and discussion across local government departments on environmental sustainability particularly focusing on developing synergies around EDI, environmental, planning, and economic development.

IV. Develop dissemination strategies to gather and share knowledge and information around environmental sustainability more accessibly focusing on ensuring that marginalised communities can share and access this knowledge and information.

V. Develop approaches towards building community knowledge and understanding of environmental sustainability to empower marginalised communities to be able to work with the public and private sector to build equitable and appropriate environmental solutions.

VI. Further develop adaptive capacity and resilience to mitigate environmental impacts by working more closely and effectively with marginalised communities.

VII. Develop strategies for collecting data on the impact of environmental issues and environmental sustainability measures on marginalised communities including a particular focus on intersectional disadvantage and socio-economic impact.

VIII. Develop strategies for ensuring community engagement and co-production when developing environmental sustainability measures at every stage of the decision-making process.

IX. Develop strategies for ensuring marginalised communities have consistent meaningful opportunities to express environmental concerns to local government and ensure that these feed into public sector prioritisation when planning, developing, and implementing environmental sustainability measures.

X. Work with local industry and the private sector to support environmentally just approaches to environmental sustainability decision making.

Private sector (regional/sub-regional)

Whilst there are pockets of good practice around community engagement in the private sector, there is a lack of awareness of environmental justice. Equally, there is evidence that for international organisations the excellent practice (for example in the global south) is not replicated or considered at a domestic level. Many of the following pointers for action will be addressed by the proposed Environmental Justice Framework. Therefore, at a sub-regional and regional level it is recommended that the private sector:

I. Promote and ensure greater organisational understanding of environmental justice and recognition of environmental inequalities.

II. Develop strategies for ensuring community engagement and co-production when developing environmental sustainability measures at every stage of the decision-making process.

III. Develop strategies for collecting data on the impact of environmental issues and environmental sustainability measures on marginalised

communities including a particular focus on intersectional disadvantage and socio-economic impact.

IV. Develop and build an understanding of the business case supporting the importance of environmental justice in relation to environmental sustainability decision making.

V. Recognise the transferable learning and understanding of global community engagement on environmental sustainability decision making and seek to apply this to domestic contexts and activity.

VI. Work with local government to support environmentally just approaches to environmental sustainability decision making.

National pointers for action

The data collected, and the focus of this research has been on the sub-regional context of Cheshire and Warrington. However, it is considered that these findings are transferable and useful beyond the subregion and could apply to local government and private sector organisations from across the UK. More general pointers for action at a macro level include recommendations that:

I. Greater focus is placed on environmental justice as a core governmental policy priority. This includes a need for greater national understanding of environmental inequalities and consideration of environmental justice mechanisms to seek to mitigate these inequalities.

II. More focus is placed on joined up thinking across government departments on environmental inequalities and environmental justice.

III. Consideration is given to developing legislation requiring environmentally just approaches to environmental sustainability decision making to mitigate against the limitations of environmental impact assessments.

IV. Consideration is given to developing and sustaining a national Environmental Justice Mapping Tool for use by the public and private sector.

V. Consideration is given to supporting guidance on public and private sector approaches to environmental sustainability decision making using the Environmental Justice Framework as a template approach.

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