



Sustainable citizen decision-making

Impact of the cost-of-living crisis on the energy
and circular economy transitions in urban
Scotland

Just Transition Hub, University of Dundee
November 2023

Impact of the Cost-Of-Living Crisis on the Energy and Circular Economy Transitions

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Acknowledgements

We wanted to thank all project participants for their time and valuable insights. The information gathered during interviews and focus groups was crucial to produce a grounded analysis of issues impacting on the everyday lives of people living in Scotland. We also want to thank the project team for their hard work within a challenging timescale. The completion of this project would not have been possible without the dedication of Rosamonde Birch, Kaushalya Herath, Ruth Lelei and Naiara Correa Nogueira de Souza. Special thanks to Edzia Carvalho, Paula Francis, Donna Hendry, Caroline Brown and Lesley McCluskey. Finally, a very special thanks to Zero Waste Scotland for funding our work and for the valuable partnership – special thanks to Marisol Lopez, Anastasios Markopoulos and Ameena Camps.

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Dundee, September 2023

Contents

1. Introduction	5
1.1. Background and Context	6
1.2. Organisation of the Report and Main Findings	8
1.3. Main Recommendations	10
2. Just Transition to a Low-Carbon Economy in Times of Crisis	13
2.1. Introduction	13
2.2. Research design	13
2.3. Circular economy	16
2.4. Energy Transition	22
2.5. Discussion	30
3. Methodology Employed in the Empirical Research	35
3.1. Research Design and Sampling	35
3.2. Primary Data Collection	36
4. Research Findings	40
4.1. Understanding Of Just Transition and Circular Economy	40
4.2. Application and Approaches to the Transitions	42
4.3. The Impact of Different Crises	44
4.4. Cost of Living Crisis and The Transitions	49
5. Discussion of Research Findings	54
5.1. Perceptions on the Effects of the Crises on the Transitions	54
5.2. Perceptions of Justice in Transitions in Times of Crisis	59
5.3. Perceptions About the Crises and Transitions and the Lived Space	71
5.4. Insights Relevant For Decision-Making	74
6. Recommendations	78
7. References	83
8. Annexes	88

Tables and Figures

Table 1.1 – Dundee city profile

Table 1.2 – Stirling city profile

Table 1.3 – Scottish profile for urban centres in context

Table 2.1 – Justice

Table 2.2 – Summary of main findings from literature review

Figure 4.1 – Impact of the cost of living crisis on the transitions

Glossary of Acronyms and Terms

Acronym/Term	Description
EU	European Union
JTH	Just Transition Hub
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
SIMD	Scottish Index of Multiple Deprivation
SUP	Single-Use Plastic
tCO ₂ e	Tonnes (t) of carbon dioxide (CO ₂) equivalent (e)
UK	United Kingdom

1. Introduction

The present report is the outcome of a research project commissioned by Zero Waste Scotland and carried out by the Just Transition Hub (JTH), University of Dundee, with the objective of understanding the ways in which the cost-of-living crisis has affected the attitudes and behaviours of individuals and communities towards a transition to a low-carbon economy in Scotland.

We define the transition as encompassing both energy transition and the transition to a circular economy, so in this report the word “transition(s)” means both the referred transitions. We define the scope of “justice” to cover three dimensions – distributive, recognition and procedural. Briefly, distributive justice concerns the ideal of a fair share of the benefits and costs of the transition among different communities and stakeholders.

Recognition justice respects the proper acknowledgement of marginalised individuals and communities who may be living in deprived urban areas.

Procedural justice respects inclusion and effective participation of all, including marginalised actors, in public debate and decision-making.

The study involved a literature review in narrative form (chapter 2) and a small-scale exploratory study (chapters 3 and 4), using a multi-strategy approach that included seven individual semi-

structured expert interviews, four semi-structured citizen/consumer focus groups and one semi-structured expert focus group. Both the literature review and the empirical research adopted a thematic analysis approach, with clear research objectives identified in a standardised analysis framework.

The present research is part of a broader series of investigations commissioned by Zero Waste Scotland to understand circular economy perspectives and sustainable decision-making in times of crises to help inform Zero Waste Scotland’s communication, engagement and further research for a just transition. The present study is complemented by parallel research being conducted by the University of Highlands and Islands with a focus on rural communities.

1.1. Background and Context

The research was specifically designed to investigate two urban areas which occupy different ends of the energy poverty map in Scotland¹ as well as contrasting Scottish Index of Multiple

Deprivation (SIMD) socioeconomic demographics.² The empirical research was carried out in Dundee and Stirling, Scotland. Tables 1.1 and 1.2 give a summary profile of these cities, based on official data published by the Scottish and United Kingdom (UK) governments.^{3,4,5,6,7,8,9,10}

¹ Scottish Government, "Latest Estimates of Fuel Poverty and Extreme Fuel Poverty under the Proposed New Definition - Following Stage 2 of the Fuel Poverty (Targets, Definition and Strategy) (Scotland Bill)" (Edinburgh: Scottish Government, 2019).

<https://www.gov.scot/binaries/content/documents/govscot/publications/research-and-analysis/2019/05/latest-estimates-fuel-poverty-extreme-fuel-poverty-under-proposed-new-definition-following-stage-2-fuel-poverty-targets-definition-strategy-scotland-bill/documents/latest-estimates-fuel-poverty-extreme-fuel-poverty-under-proposed-new-definition-following-stage-2-fuel-poverty-targets-definition-strategy-scotland-bill/latest-estimates-fuel-poverty-extreme-fuel-poverty-under-proposed-new-definition-following-stage-2-fuel-poverty-targets-definition-strategy-scotland-bill/govscot%3Adocument/latest-estimates-fuel-poverty-extreme-fuel-poverty-under-proposed-new-definition-following-stage-2-fuel-poverty-targets-definition-strategy-scotland-bill.pdf>.

² Scottish Government, "The Scottish Index of Multiple Deprivation 2020" (Edinburgh: Scottish Government, n.d.), <https://www.gov.scot/collections/scottish-index-of-multiple-deprivation-2020/>.

³ Scottish Government, "Latest Estimates."

⁴ Scottish Government, "Scottish Index."

⁵ Scottish Government, "Scottish Index."

⁶ Andrew Pulford and Lorna Renwick, "Development of Health and Social Care Inequality Indicators for Scotland - National Overview Report" (Glasgow: NHS Health Scotland, 2019).

⁷ "Dundee City Council Area Profile," accessed September 2, 2023,

https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/dundee-city-council-profile.html#population_estimates.

⁸ "Stirling Council Area Profile," accessed September 2, 2023,

https://www.nrscotland.gov.uk/files//statistics/council-area-data-sheets/stirling-council-profile.html#population_estimates.

⁹ Philip Williams, "2011 Waste Data Quality Report," 2020.

¹⁰ Office for National Statistics, "The National Statistics Socio-Economic Classification (NS-SEC)," accessed September 2, 2023,

<https://www.ons.gov.uk/methodology/classificationsandstandards/otherclassifications/thenationalstatisticsocioeconomicclassificationnssecrebasedonsoc2010>.

Table 1.1 – Dundee city profile

Indicator	Description
Population profile	<p>Total population: 147,720</p> <ul style="list-style-type: none"> Life expectancy for females in Dundee is 79.1 years (national average 80.8) Life expectancy for males in Dundee is 73.5 (national average is 76.5) Dundee has a higher percentage of residents aged 24–44
SIMD of urban area	The number of SIMD zones in Dundee city is 188, with 21 zones in the lowest 5% SIMD, 45 zones in the lowest 10% SIMD and 70 zones in the lowest 20% SIMD.
Mapping of circular economy services	Dundee city has some existing mapping of services across the city, which includes Local Authority listings and city mapping; Dundee Community Food Network Map (Faith in Community Dundee); Dundee Recovery Road Map (NHS Parish Nursing); Sustainable Dundee Map (Sustainable Dundee); and Dundee Food Growing Network (Grow Dundee).
Fuel poverty	<ul style="list-style-type: none"> Fuel poverty: 29% (national average 26%) Extreme fuel poverty: 15% (national average 12%)
Waste and recycling profile	<p>Data provided from Dundee local authority in 2021 overview:</p> <ul style="list-style-type: none"> Waste generated (tonnes): 65,011 Recycling (tonnes): 21,224 (32.6%) Diversion from landfill (tonnes): 41,337 (53.6%) (incineration) Landfill (tonnes): 2,452 (3.8%) Carbon impact (tCO₂e): 150,179

Table 1.2 – Stirling city profile

Indicator	Description
Population profile	<p>Total population: 93,470 across Stirling Council and approx. 45,000 within the city area</p> <ul style="list-style-type: none"> Life expectancy for females in Stirling is 81.5 (national average 80.8) Life expectancy for males in Stirling is 77.4 (national average is 76.5) Stirling has a higher percentage of residents aged 45–65
SIMD of urban area	Stirling city area has 50 SIMD zones (not including rural areas outside the urban centre). Of these, 2 zones are in the lowest 5% SIMD, 6 zones are in the lowest 10% SIMD and 9 zones are in the lowest 20% SIMD.
Mapping of circular economy services	Stirling has less mapping of services and projects across the city, which includes local authority listings, as well as Transition Stirling and Sustainable Food Places (Stirling Food Partnership) providing overviews of existing projects in the area.

Fuel Poverty	<ul style="list-style-type: none"> • Fuel poverty: 25% (national average 26%) • Extreme fuel poverty: 13% (national average 12%)
Waste and recycling profile	<p>Data provided from Stirling LA in 2021 overview (urban and rural):</p> <ul style="list-style-type: none"> • Waste generated (tonnes): 43,955 • Recycling (tonnes): 22,345 (50.8%) • Diversion from landfill (tonnes): 744 (1.7%) • Landfill (tonnes): 20,868 (47.5%) • Carbon impact (tCO₂e): 90,816

The findings that result from investigation of how transitions are affected by the increase in living costs in these cities may not be automatically applicable to other urban areas. However, the findings are consistent with what the literature reports, and should be strong enough to help Zero Waste Scotland in its efforts to understand the effects of crises in the transitions in Scotland.

1.2. Organisation of the Report and Main Findings

Chapter 2 contains the literature review. Important conclusions that emerge from this chapter are that crises may jeopardise the transitions because crises exacerbate inequalities, constrain individual and public finances, and change the sense that individuals and communities have of what is relevant from sustainability towards more immediate needs such as health or food security; that sectoral or partial strategies to address present or past crises may

delay the transition and increase inequalities, further jeopardising resilience to future crises; and that strategies developed to promote the transition may be important when designing responses to crises.

Chapter 3 outlines the methodology employed to carry out the empirical analysis. The empirical research consisted of a small-scale exploratory study, developed by involving the co-design of research instruments and regular discussions on the strategic directions of the research. The empirical research consisted of seven individual semi-structured interviews with experts currently working in the fields of circular economy, net zero, local government, climate justice, individuals' rights, and fairness commission projects; four focus groups with individuals from local communities in Dundee and Stirling; and one focus group with community and grass roots experts currently working within education, circular economy projects and local authority.

Chapter 4 summarises the main findings. The empirical research confirms that individuals and even experts have more familiarity with circular energy transition than with the circular economy transition. In fact, there is a noticeable difficulty in explaining what the circular economy transition means in clear and practical terms. Consequently, experts and individuals can give examples of approaches and applications of circular energy transition but have difficulty in doing the same with regard to circular economy transition. The discussions with individuals from local communities and experts reveal the perception that crises combined to aggravate inequalities at individual, community and national levels. There is a general perception that communication about the circular economy transition and circular energy transition is unclear and tends to be confusing. There is a widespread perception that education is not sufficient to promote circular energy transition and circular economy transition. Among the diverse effects that the cost of living crisis is having on the behaviours and

attitudes towards the transitions, there are perceptions (i) that the cost of living crisis has aggravated food and energy poverty and (ii) that there is an unfair expectation that those suffering from aggravated food and energy poverty should make sustainable decisions. Significantly, the discussions show concern about stigma and shame that individuals experiencing deprivation feel when resorting to services that are framed as important for circular energy transition (for example food banks). There is a perception that these individuals are forced to make the decision to resort to these services out of necessity.

In chapter 5 we link the main findings of the literature review with the empirical research. Chapter 5 shows that there is consistency between these findings, but it also shows that the aspect of stigma and shame is not covered in the literature. Table 1.3 provides a summary of the main perceived effects of crises on people's attitudes and behaviours towards the transition.

Table 1.3 Analytical framework

	Dimension	Findings
Justice	Distributive	Aggravated food insecurity and intersectional injustices Sustainability as a luxury that some groups cannot afford Unfair levels of responsibility imposed on some groups
	Recognition	Lack of recognition of differences Lack of recognition of specific groups and children Lack of context-based approaches Stigma and shame
	Procedural	Lack of inclusion in decision-making Existence of echo-chambers Poor and non-transparent communication
Space		Unfair location of and access to infrastructures Circular economy principles likely improve community resilience

1.3. Main Recommendations

The main recommendations are provided in chapter 6. We restricted the scope of the recommendations to what we believe bring new insights when contrasted with existing policies and approaches.

I. Competent planning for dealing with crises

Government, communities and civil society organisations should expect crises to emerge at unexpected moments. The future is likely to bring different crises with different causes, as well as the worsening of the climate and environmental crises. Preparedness requires the inclusion of strategies to promote transitions into policies and actions by government, communities and organisations.

II. Food security is paramount in planning and responding to crises

The COVID-19 pandemic disrupted food systems in the UK and Scotland. The research points to the need to reduce dependency on global food supply chains and to invest in local suppliers and ensure that their products are accessible and affordable to all individuals and communities. It is crucial to combine circular economy and energy transition strategies (e.g. renewables, sharing and reuse) with urban agriculture.

III. Public debate must enable diversity

People living in marginalised communities are underrepresented in public assemblies and debates about the transition and in circular economy

activities such as community gardens. When present, marginalised groups may not have a voice, in contrast to participants from higher-income backgrounds. Strategies to ensure that these forums are inclusive and that participation is real may draw on the rich experience of restorative justice circles with regard to recruitment and the need for and role of professionals, for instance as facilitators of the debates.

IV. Responses to crises must acknowledge stigma and shame

The stigma and shame associated with the use of food banks, food larders, community fridges and second-hand shops should not be underestimated, and should be further studied. There is a negative dynamic that emerges from the study whereby crises aggravate stigma and shame, which reinforce inequalities. Researchers and policymakers must approach this subject from the perspective of those living the experience of resorting to these services and draw on the recent practice adopted by civil society organisations to tackle the problem – for instance, the change in the narrative, to frame use of these services as important for the environment and for the climate.

V. Investment in formal and informal education

Crises accentuate some of the shortcomings of the current education

environment. Some circular economy initiatives offer a platform for learning life skills and for informal education exchanges more broadly. The potential that circular economy workshops and cafes, for example, offer as informal education settings that can reach all generations should be better studied and understood. Investment in these initiatives should seek to enhance their potential to serve as informal education settings. This should be done through partnerships with education institutions, civil society organisations and communities. Beyond this, there is a clear need for formal and informal education to explain what the energy and circular economy transitions mean in practice, to break down complex concepts and build actionable knowledge.

VI. Integrated, connected and holistic green policies in response to crises

There is agreement against the deployment of fragmented responses to crises and against policies that prioritise certain problems, such as health or finance, and ignore others such as sustainability. This is particularly important in a future in which most diverse crises may erupt in parallel with the worsening of the climate and environmental crises. There seems to be significant agreement that policies adopted to recover from or to respond to crises

should be integrated, connected and holistic. Further, there is emerging agreement that these policies must be “green” and promote a just transition. We draw on this to recommend green

recovery policies in response to future crises as a way to also build preparedness and resilience towards the developing climate and environmental crises.

2. Just Transition to a Low-Carbon Economy in Times of Crisis

2.1. Introduction

We carried out a narrative review¹¹ of the relevant literature to address how crises may affect just transitions to a low-carbon economy in urban areas, with a focus on the increase in the cost of living that may result from them. We covered the literature concerning the interplay between crises and energy transition and on crises and the transition to a circular economy. We note that the word “transition(s)” in this chapter of the report refers to both energy transition and transition to a circular economy. The present review suggests three main conclusions. First, crises may jeopardise the transitions, because crises exacerbate inequalities, constrain individual and public

finances, and change the sense of what is relevant from sustainability towards more immediate needs such as health or food security. Second, sectoral or partial strategies to address present or past crises may delay the transition and increase inequalities, further jeopardising resilience to future crises. Third, strategies developed to promote the transition may be important when designing responses to crises.

2.2. Research design

We begin by defining the meaning of *crisis*. We draw on recent literature to approach the COVID-19 pandemic and other serious crises as potential “critical juncture” events:¹² that is, events that may significantly jeopardise or strengthen the transition to a low-carbon economy – in other words, events that cause a change in the pathway of the transition. We do not automatically define crises as critical junctures but rather as having the potential to become so. In this way we can better understand the transformational potential of these events that emerge in the literature

¹¹ Benjamin K. Sovacool, Jonn Aksen and Steve Sorrell, “Promoting Novelty, Rigor, and Style in Energy Social Science: Towards Codes of Practice for Appropriate Methods and Research Design,” *Energy Research and Social Science* 45 (1 November 2018): 12–42, <https://doi.org/10.1016/j.erss.2018.07.007>.

¹² Claire Dupont, Sebastian Oberthür and Ingmar von Homeyer, “The Covid-19 Crisis: A Critical Juncture for EU Climate Policy Development?”, *Journal of European Integration* 42, no. 8 (2020): 1095–1110, <https://doi.org/10.1080/07036337.2020.1853117>.

(their potential to change policy pathways).

There is also the need to define the concept of ‘just transition’. There is not one single answer to the question of what justice means in the context of the transition. A recent literature review on “just transition”¹³ suggests that there is general agreement about justice encompassing three dimensions: distributive, recognition and procedural (which we explain in Table 2.1). We adopt this framework. Moreover, we need a definition of the meaning of transition, and we note that the literature on “just transition” is

essentially preoccupied with energy transition.¹⁴ In this chapter we expand the meaning of transition to define it as a transition to a low-carbon economy, which includes energy transition and the transition to a circular economy.

Finally, because of the scope of the project, we clarify that the focus is placed on urban areas, and we are concerned mostly about intersectional injustices in urban areas and how they relate to just transitions and crises.

Table 2.1 explains the meaning of the three dimensions of justice that are often discussed in the literature and that serve as our analytical framework.

Table 2.1 – Justice

	Dimension	Scope
Justice	Distributive	Concerns the fairness in the distribution of benefits and negatives associated with the transition. The focus is placed on whether and how the marginalised groups bear the costs of crises and the transition.
	Recognition	Concerns recognition of marginalised individuals and groups in society. The focus is placed on women, children, the elderly and the poor, given the risks that crises and the transition create for them.
	Procedural	Concerns the fairness of procedures involved in decision-making relevant to ensure a just transition. The focus is placed on the inclusion of the groups referred above in the decision-making concerning the transition.

¹³ Anthony Stark, Fred Gale and Hannah Murphy-Gregory, “Just Transitions’ Meanings: A Systematic Review,” *Society and Natural Resources* (5 May 2023): 1–21. <https://doi.org/10.1080/08941920.2023.2207166>.

¹⁴ Stark, Gale and Murphy-Gregory, “Just Transitions’ Meanings.”

We have carried out a narrative review of the literatures on “just transition” and “circular economy” in social sciences. The protocol draws on those developed for systematic reviews^{15,16,17} but was adapted taking into consideration the tight deadlines for conclusion of the research. Given the qualitative character of the review, we have not tried to be exhaustive but have tried to ensure that the themes of relevance would be covered.¹⁸ Ultimately, only articles published in English in peer-reviewed journals indexed in Scopus and Web of Science were included, ensuring the quality of the papers. The mapping was carried out in April 2023. Two searches were carried out, as explained below.

Circular Economy. We searched for “circular economy” in Scopus and Web of Science. Given the length of the literature on circular economy, we limited the search for articles and reviews in which the words “cris*s” or “pandemic” or

“covid” appeared in the title, abstract and keywords (Web of Science and Scopus). There was no time limitation, and all articles available were included. We assumed that these were the articles of relevance for the research, and with this procedure we ensured replicability. 314 papers were included for the next stage of the review.

Just Transition. We searched for “just transition” in Scopus and Web of Science, including articles and reviews published until the date of the search, which returned 691 titles. All abstracts were included for the next stage of the review.

After exclusions of duplicates and irrelevant titles, the full text of the 44 articles was screened through NVivo with the same codes. This helped the team to define 28 papers to be finally included in the review. These papers were read, and further exclusions were made for lack of relevance, with relevance being assessed based

¹⁵ [Mark Petticrew and Helen Roberts, *Systematic Reviews in the Social Sciences: A Practical Guide* \(Germany: Wiley, 2008\).](#)

¹⁶ [James Thomas and Angela Harden, “Methods for the Thematic Synthesis of Qualitative Research in Systematic Reviews,” *BMC Medical Research Methodology* 8, 45 \(10 July 2008\), <https://doi.org/10.1186/1471-2288-8-45>.](#)

¹⁷ [Pablo García-García, Óscar Carpintero and Luis Buendía, “Just Energy Transitions to Low Carbon Economies: A Review of the Concept and Its Effects on Labour and Income,” *Energy Research and Social Science* 70 \(December 2020\): 101664, <https://doi.org/10.1016/j.erss.2020.101664>.](#)

¹⁸ [García-García, Carpintero and Buendía, “Just Energy Transitions.”](#)

strictly on the scope of the research (impact of the increase of living costs on people's attitudes and behaviours towards the transition in urban areas). Annex 1 explains the procedure through a Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) diagram.

Only two papers address both the transition to circular economy and energy transition;¹⁹ thirteen address only energy transition, and another thirteen address the transition to a circular economy. This shows a divide within the literature and thus shows the importance of the present study. The aspects of justice (recognition, distributive and procedural) sometimes appear in clear terms and sometimes more subtly. Fifteen articles address the pandemic, nine articles address the pandemic and/or with other crises, one deals with the UK²⁰ and one with Scotland.²¹

We carried out the review bearing in mind how the literature discusses the following points:

- (1) the interplay between crises and the transition, which we report as key messages;
- (2) the effects of crises on the dimensions of justice;
- (3) crises, transitions and intersectional injustices in urban areas.

The following sections report on how these aspects emerge in the literature.

2.3. Circular economy

2.3.1 Key Messages

Three important messages arise from the literature about the effects of crises on the transition to a circular economy.

First, the pandemic negatively affected the transition to a circular economy because it diverted stakeholders' attention away from

¹⁹ Taylor Brydges, Monique Retamal and Mary Hanlon, "Will COVID-19 Support the Transition to a More Sustainable Fashion Industry?", *Sustainability: Science, Practice and Policy* 16, no. 1 (2020): 298–308, <https://doi.org/10.1080/15487733.2020.1829848>; Nanna Rask, "An Intersectional Reading of Circular Economy Policies: Towards Just and Sufficiency-Driven Sustainabilities," *Local Environment* 27, no. 10 (2022): 1287–1303, <https://doi.org/10.1080/13549839.2022.2040467>.

²⁰ Adrian Smith et al., "Inclusive Innovation in Just Transitions: The Case of Smart Local Energy Systems in the UK," *Environmental Innovation and Societal Transitions* 47 (2023), <https://doi.org/10.1016/j.eist.2023.100719>.

²¹ Lara M. Santos Ayllón and Kirsten E.H. Jenkins, "Energy Justice, Just Transitions and Scottish Energy Policy: A Re-Grounding of Theory in Policy Practice," *Energy Research and Social Science* 96 (2023), <https://doi.org/10.1016/j.erss.2022.102922>.

sustainable alternatives and towards more immediate concerns such as health, hygiene and safety,²² and this seems to have also affected industrial consumers.²³ At the systemic level, laws and policies geared towards a circular economy were relaxed in order to address immediate health concerns posed by the pandemic.²⁴ For example, the UK suspended its mandated plastic bag charge for online deliveries and Scotland delayed its anticipated Deposit Return Scheme in response to the pandemic.²⁵

COVID-19 increased hunger, food waste and single-use plastic (SUP).²⁶ The increase in food waste led to an increase of greenhouse gas emissions related to unconsumed food, and the increase in SUP led to more environmental pollution.²⁷

Second, there is also indication that the pandemic promoted some aspects of the transition (the “positives”).²⁸ Reportedly, COVID-19 made individuals more conscious of sustainability practices, and they therefore became more attentive to

²² [Małgorzata Grodzińska-Jurczak et al., “Contradictory or Complementary? Stakeholders’ Perceptions of a Circular Economy for Single-Use Plastics,” *Waste Management* 142 \(April 2022\): 1–8, <https://doi.org/10.1016/j.wasman.2022.01.036>; Amedeo Argentiero, Alessio D’Amato and Mariangela Zoli, “Waste Recycling Policies and Covid-19 Pandemic in an E-DSGE Model,” *Waste Management* 141 \(March 2022\): 290–99, <https://doi.org/10.1016/j.wasman.2021.12.036>; Kumar Raja Vanapalli et al., “Challenges and Strategies for Effective Plastic Waste Management during and Post COVID-19 Pandemic,” *Science of the Total Environment* 750 \(January 2021\), <https://doi.org/10.1016/j.scitotenv.2020.141514>.](#)

²³ [Didzis Rutitis et al., “Sustainable Value Chain of Industrial Biocomposite Consumption: Influence of COVID-19 and Consumer Behavior,” *Energies* 15, no. 2 \(January 2022\), <https://doi.org/10.3390/en15020466>.](#)

²⁴ [Vanapalli et al., “Challenges and Strategies.”](#)

²⁵ [Vanapalli et al.](#)

²⁶ [Hari Bhakta Sharma et al., “Circular Economy Approach in Solid Waste Management System to Achieve UN-SDGs: Solutions for Post-COVID Recovery,” *Science of the Total Environment* 800 \(December 2021\), <https://doi.org/10.1016/j.scitotenv.2021.149605> EA AUG 2021.](#)

²⁷ [Sharma et al., “Circular Economy Approach.”](#)

²⁸ [Elena-Mădălina Vătănescu et al., “Before and After the Outbreak of Covid-19: Linking Fashion Companies’ Corporate Social Responsibility Approach to Consumers’ Demand for Sustainable Products,” *Journal of Cleaner Production* 321 \(October 2021\), <https://doi.org/10.1016/j.jclepro.2021.128945>; John Lever and Roberta Sonnino, “Food System Transformation for Sustainable City-Regions: Exploring the Potential of Circular Economies,” *Regional Studies* 56, no. 12 \(2022\): 2019–31, <https://doi.org/10.1080/00343404.2021.2021168>.](#)

companies' adherence to circular economy principles, such as use of recycled materials, transparent policies and policymaking, respect of workers' rights and pollution, among many other sustainability concerns.²⁹ Researchers³⁰ who examined the rural-urban linkages with regard to food systems observed that to some extent the COVID-19 pandemic encouraged people and businesses to adopt more circular practices, such as turning to locally produced items and the reuse and recycling of products to avoid any wastage during the pandemic. However, these positives are often acknowledged to be temporary.³¹ Ibn-Mohammed et al. conclude that the pandemic shows that cutting off the "nice things of life" (driving and flying less) will not deliver enough reduction in emissions, and that the

"positives" came at a very high price (lockdown).

Third – and this should be underlined, given its potential to build resilience to future crises – the literature is clear that circular economy strategies should be applied for recovery from the pandemic crisis.³² Notably, circular economy strategies can "minimise prevailing pressures and struggles regarding conflicts due to imbalanced distribution of resources, through participatory forms of governance that entails the inclusion of local stakeholders in resource management initiatives".³³ Circular economy strategies (for example sharing and reuse) can also be combined with new technologies, such as urban farming, to enhance resilience to the effects of crises that affect food systems.³⁴

²⁹ Vătămănescu et al., "Before and After."

³⁰ Lever and Sonnino, "Food System Transformation."

³¹ Rutitis et al., "Sustainable Value Chain"; T. Ibn-Mohammed et al., "A Critical Analysis of the Impacts of COVID-19 on the Global Economy and Ecosystems and Opportunities for Circular Economy Strategies," *Resources, Conservation and Recycling* 164 (January 2021), <https://doi.org/10.1016/j.resconrec.2020.105169>.

³² Ibn-Mohammed et al., "A Critical Analysis"; Paul D. Jensen and Caroline Orfila, "Mapping the Production-Consumption Gap of an Urban Food System: An Empirical Case Study of Food Security and Resilience," *Food Security* 13, no. 3 (2021): 551–70, <https://doi.org/10.1007/s12571-021-01142-2>; Lever and Sonnino, "Food System Transformation"; Sharma et al., "Circular Economy Approach."

³³ Ibn-Mohammed et al., "A Critical Analysis."

³⁴ Jensen and Orfila, "Mapping the Production."

2.3.2 distributive justice – fair distribution of benefits and burdens

This is the most common dimension of justice to emerge in the circular economy literature, especially in papers dealing with food systems. Jensen and Orfila explain that the pandemic exacerbated ingrained injustices in food systems in Leeds, which already suffered from food inequality and a 52% gap between food demand and production, which made it reliant on imports: COVID-19 disrupted global chains, jeopardising imports and worsening food insecurity.³⁵ Lever and Sonnino, investigating food systems in the North of England (Kirklees), noted that the beginning of the pandemic “stretched” UK food systems. Already disadvantaged groups were disproportionately affected by the lack of availability or access to food supplies caused by the pandemic and its effects (for example panic buying and the closure of food banks). These authors, however, note that the regional food systems adapted rather quickly with an increase in

farms shops, home deliveries and online selling.³⁶ Circular economy initiatives, such as reducing food waste through the use of food banks, had to be closed down during the pandemic. This exacerbated already existing inequalities, such as food insecurity, among low-income groups dependent on such food systems.³⁷ These authors suggest that it is important to understand how reliant an area is on imports,³⁸ that circular economy strategies and new technologies may be an option for cities to enhance resilience, that overreliance on big supermarkets needs to be avoided, and that circular economy strategies may foster resilience.³⁹

2.3.3 Recognition justice – recognition of the marginalised

Researchers noted that a reduction in demand for clothing products resulted in loss of revenue and increased unemployment for women workers and reinforced “narratives which frame garment workers as weak and vulnerable”.⁴⁰ Moreover, Rask explains how the policies adopted by the City of Gothenburg

³⁵ [Jensen and Orfila, “Mapping the Production.”](#)

³⁶ [Lever and Sonnino, “Food System Transformation.”](#)

³⁷ [Lever and Sonnino.](#)

³⁸ [Jensen and Orfila, “Mapping the Production.”](#)

³⁹ [Lever and Sonnino, “Food System Transformation.”](#)

⁴⁰ [Brydges, Retamal and Hanlon, “Will COVID-19 Support.”](#)

lack proper recognition of the environment and of the different social and economic contexts in which people are immersed – and assume that individuals will react in the same way to education and training provided by the municipality.⁴¹ In a more conceptual paper, Sharma et al. argue that the response to COVID-19 should include strategies to acknowledge and tackle the situation of women in the informal sector of waste management.⁴²

2.3.4 Procedural justice – fairness in decision-making

The main aspect of *procedure* – participation – emerges often in the literature. Authors⁴³ discuss participation and decision-making about laws and policies pertaining to the circular economy. The same authors show that many stakeholders, local governments, experts, etc. feel excluded from policies and strategies geared towards addressing the circular economy. Consequently, this leaves out the concerns and knowledges of

different actors, thus hindering any progress towards a sustainable transformation. Scholars⁴⁴ also emphasise that the participation of different actors in the decision-making processes of the circular economy is vital, especially during a global crisis and at a time of increased politicisation and lobbying around scientific matters. The literature shows the disconnection between national and local governments that frustrates the transition to circular economy at the local level.⁴⁵ It also shows the disconnection between governments on the one hand and industries and consumers on the other, which is defined as an obstacle to the transition to a circular economy.⁴⁶

The literature also highlights the importance of “trusted and actionable knowledge” in terms that we can interpret as falling within the dimension of procedural justice. Grodzińska-Jurczak et al. investigate stakeholders’ perceptions of SUPs in Krakow and conclude that the transition to a

⁴¹ [Rask, “An Intersectional Reading.”](#)

⁴² [Sharma et al., “Circular Economy Approach.”](#)

⁴³ [Lever and Sonnino, “Food System Transformation”; Grodzińska-Jurczak et al., “Contradictory or Complementary.”](#)

⁴⁴ [Grodzińska-Jurczak et al., “Contradictory or Complementary”; Lever and Sonnino, “Food System Transformation.”](#)

⁴⁵ [Lever and Sonnino, “Food System Transformation.”](#)

⁴⁶ [Grodzińska-Jurczak et al., “Contradictory or Complementary.”](#)

circular economy requires action at individual (behaviours and attitudes) and system (regulation, education) levels; however, they explain that “politicization, lobbying, and unreliable statistics exacerbate the perceived challenge”, and they posit that “trusted and actionable knowledge supporting sustainability transitions must become a priority for decision-makers and other stakeholders”.⁴⁷ Trusted knowledge as defined by Grodzińska-Jurczak et al, refers to knowledge that is reliable or credible and which emanates from a wide range of sources such as from stakeholders practical experiences and perspectives. They note that this trusted knowledge can be translated into actionable knowledge, which is vital in achieving sustainability goals.

2.3.5 Space – intersectional injustices in urban area

The linear food systems (characterised by food production–consumption–waste) are one of the main issues for the ecological degradation, and thus developing local and circular food systems is

vital.⁴⁸ Sharma et al. highlight the importance of not only localising the supply chains but also decentralising the solid waste systems.⁴⁹ Decentralization involves shifting from a centralized, top-down approach to one that involves engaging various other stakeholders in circular economy initiatives such as solid waste management.⁵⁰ Ibn-Mohammed et al. also suggest that adopting circular economy principles will have both national-level and local-level benefits such as minimizing waste generation and promoting behavioural changes and will mitigate the negative effects such as food insecurity in the post-pandemic period. At the national level it will reduce overreliance on one country for imports and will encourage the transition from a “traditional polluting, energy-intensive and manufacturing-driven economy to a circular economy based on renewable energy, smart re-manufacturing and digital technology.”⁵¹

Jensen and Orfila address food inequality in Leeds during the

⁴⁷ [Grodzińska-Jurczak et al.](#)

⁴⁸ [Ibn-Mohammed et al., “A Critical Analysis”;](#) [Jensen and Orfila, “Mapping the Production”;](#) [Lever and Sonnino, “Food System Transformation.”](#)

⁴⁹ [Sharma et al., “Circular Economy Approach.”](#)

⁵⁰ [Sharma et al., “Circular Economy Approach.”](#)

⁵¹ [Ibn-Mohammed et al., “A Critical Analysis.”](#)

pandemic and its correlation with deprivation, food poverty and health outcomes. The study concludes that the “level and form of production taking place within the city” does not “feed its population in a sustainable and suitably nutritious manner”.⁵² They argue that UK cities are not resilient when it comes to food and nutrients, due to the high dependence on imports. They suggest that it is vital to improve the performance of the local food supply system through urban farming and industrial symbiosis especially among communities classified as ‘multiply deprived’ to make cities more self-reliant.⁵³ They propose that high levels of investment, multi-sector cooperation and strong governance are required to make the switch into a circular economy of food systems in cities in the UK. To make sure that everyone can afford locally produced healthy food, local food hubs and financial support mechanisms should be introduced.⁵⁴ They also recommend creating a more productive relationship between cities and their surrounding rural areas. This kind of relationship

will not only ensure the localisation of supply chains but also create an economy to productively use the waste in cities in agricultural production.⁵⁵ Lever and Sonnino suggest that a city–region food systems approach can strengthen the urban–rural linkages in regions. The concept is not only valid to medium-sized cities and towns with links to rural surroundings but also to mega-cities with access to rural hinterlands.⁵⁶

2.4. Energy Transition

2.4.1 Key messages

The literature on just transition is mostly focused on policymaking at the macro level (regional, national and global), with marginal discussions about the impact of COVID-19 on the behaviours and attitudes of individuals. The *first* key message is about the impact of the pandemic on the transition. As this point is also covered in earlier sections, we emphasise here only some complementary empirical aspects. Investigating the green recovery from the pandemic in Bath, Exeter and Bristol, Berglund et

⁵² [Jensen and Orfila, “Mapping the Production.”](#)

⁵³ [Jensen and Orfila.](#)

⁵⁴ [Jensen and Orfila.](#)

⁵⁵ [Jensen and Orfila.](#)

⁵⁶ [Lever and Sonnino, “Food System Transformation.”](#)

al. report that local authority office interviewees “highlighted how climate emergency declarations had brought significant expectations of action, but that staffing and resourcing were struggling to keep up”, and that some officers “suggested that many councils ‘lost their sustainability resource in austerity back in 2010/2011’” and complained about the complex structure of funding schemes.⁵⁷

This should be seen together with the discussion in the workshops carried out by the authors⁵⁸ involving civil society, in which participants “expressed frustration at a perceived lack of concrete action to connect the lessons from the pandemic with a refreshed approach to climate change”.⁵⁹

The second message is about the insufficiency or inappropriateness of responses to the COVID-19 pandemic. COVID-19 exacerbated inequalities, but policy responses that are fragmentary and are based mainly on the objective of

promoting economic growth risk further intensifying these inequalities. Berglund et al. note that although policies acknowledge the connection between social justice and environmental sustainability, they fail to explicitly acknowledge that climate and social injustices are related to the same root problems,⁶⁰ and they conclude from the workshops they conducted that growth-based policies are inadequate for engendering inclusion and hope.⁶¹ Placing emphasis on “high-energy industrialized societies” (in the Global North), Burke notes that “there is nothing inevitable about the transition away from fossil fuels”, and questions the post-pandemic response of returning to “the normal” that heavily relies on fossil fuels.⁶² This assumption as Burke notes, stems from the fact that fossil fuel usage has always been viewed as ‘normal’ or as the status quo.⁶³ Crucially, continuing the current economic stability and growth is not sustainable, as we are

⁵⁷ Oscar Berglund et al., “Just Transition in the Post-Pandemic City,” *Local Environment* 28, 6 (2023), <https://doi.org/10.1080/13549839.2023.2173732>.

⁵⁸ Berglund et al., “Just Transition.”

⁵⁹ Berglund et al.

⁶⁰ Berglund et al.

⁶¹ Berglund et al.

⁶² Matthew J. Burke, “Post-Growth Policies for the Future of Just Transitions in an Era of Uncertainty,” *Futures* 136 (2022), <https://doi.org/10.1016/j.futures.2021.102900>.

⁶³ Burke, “Post-Growth Policies.”

heading towards a climate crisis. The author highlights the importance of a more transformative approach to just transitions to ensure well-being without economic growth.⁶⁴ In a more conceptual paper, Mattar et al. reach similar conclusions, highlighting that economic growth-based responses may increase intersectional inequalities that affect marginalised communities.⁶⁵ Abram et al. address the shortcomings of the policies adopted by various governments globally in response to COVID-19, which in their view exacerbated inequalities; they make the case for a whole-system approach, emphasising that “policies must be responsive to lived experience, local context, and shifting realities; that targets must be purposefully aligned; and that different policy specialist areas must speak to each other”.⁶⁶

A *third*, interrelated message is that just transition strategies and

principles should be incorporated into plans to recover from the COVID-19 pandemic⁶⁷ – what we are now calling “green recovery”. Le Billon et al., who contrast different regions in the world, argue that the COVID-19 pandemic presents an opportunity for accelerating the transition to a low-carbon economy but that its success requires the involvement and cooperation of fossil fuel producers.⁶⁸ These scholars also emphasise that a “climate-positive COVID-19 recovery” needs to move beyond focusing only on greening of recovery packages in major consumer countries and needs to encompass *robust and differentiated* policies that address the challenges faced by fossil fuel stakeholders – for example workers, communities, governments, etc. – who are dependent on fossil fuels.⁶⁹ These policies are crucial to address the social and economic

⁶⁴ [Burke, “Post-Growth Policies.”](#)

⁶⁵ [Sennan D. Mattar et al., “Climate Justice: Priorities for Equitable Recovery from the Pandemic,” *Climate Policy* 21, no. 10 \(November 2021\): 1307–17, <https://doi.org/10.1080/14693062.2021.1976095>.](#)

⁶⁶ [Simone Abram et al., “Just Transition: A Whole-Systems Approach to Decarbonisation,” *Climate Policy* 22, no. 8 \(September 2022\): 1033–49, <https://doi.org/10.1080/14693062.2022.2108365>.](#)

⁶⁷ [Mattar et al., “Climate Justice.”](#)

⁶⁸ [Philippe Le Billon et al., “Fossil Fuels, Climate Change, and the COVID-19 Crisis: Pathways for a Just and Green Post-Pandemic Recovery,” *Climate Policy* 21, no. 10 \(November 2021\): 1347–56, <https://doi.org/10.1080/14693062.2021.1965524>.](#)

⁶⁹ [Le Billon et al., “Fossil Fuels.”](#)

challenges such as income and job losses accompanying the fossil fuel industry as well as enabling a green and just transition.⁷⁰ Using Scotland as a case study, Santos Ayllón and Jenkins emphasize the importance of Global North countries reducing consumption by transitioning from behaviours and values typical of neoliberal consumerists to address the climate crisis.⁷¹ Santos Ayllón and Jenkins recognise Scotland as a global leader in delivering climate change policies but highlights that excessive energy usage or consumption remains underexplored in policy making within the Scottish context which is greatly needed in promoting positive behavioural change in the transition to a low carbon economy. Boyle et al., studying countries in North America and Europe, note that COVID-19 recovery plans present an opportunity to provide the investments needed in achieving multiple goals at the same time, such as job creation and accelerating a just transition.⁷² They note that in the United States and

Europe, the green recovery has been acknowledged as a vital framework in addressing the climate crisis during the pandemic recovery.⁷³

2.4.2 Distributive justice – fair distribution of benefits and burdens

For Abram et al., COVID-19 affected different economic groups in different ways, for example (in the UK) ethnic minorities and children. At the same time COVID-19 undermined the interdependent and “vital global infrastructures for food, water and energy”, the dysfunction of which disproportionately affected vulnerable populations.⁷⁴ These authors note the disproportionate impact of the COVID-19 pandemic on some groups of workers (health and social care, education, food production and supply).⁷⁵ They show that centralised policies such as lockdowns may contribute some positives (in this case, through reduction of travel-related emissions) but have unintended

⁷⁰ [Le Billon et al.](#)

⁷¹ [Santos Ayllón and Jenkins, “Energy Justice.”](#)

⁷² [Alaina D. Boyle et al., “Green New Deal Proposals: Comparing Emerging Transformational Climate Policies at Multiple Scales,” *Energy Research and Social Science* 81 \(2021\), <https://doi.org/10.1016/j.erss.2021.102259>.](#)

⁷³ [Boyle et al., “Green New Deal Proposals.”](#)

⁷⁴ [Abram et al., “Just Transition.”](#)

⁷⁵ [Abram et al.](#)

negatives (shifting work-related costs to households).⁷⁶ Berglund et al. note that although the workshops and interviews that they conducted in southwest England indicated that the pandemic exacerbated extant inequalities, “the green recovery and net zero strategies said little about alternative visions of the local economy that might achieve both net zero and address injustices”.⁷⁷

When it comes to consumption, Dawkins et al. explain, there is inequality of carbon footprints between groups in the same countries, and thus adopting the same transition measures for different groups with different carbon footprints will not be just.⁷⁸

Walters focuses on two crises in Cape Town – the climate crisis, with specific reference to the drought experienced in South Africa in 2018 and 2019 and the Covid-19 pandemic – to assert that the effects

of the climate crisis and the pandemic are distributed disproportionately between different races, gender groups and classes.⁷⁹

Investigating the EU green growth strategy, Loewen warns that “the territorialization of policies slated to influence regional energy transitions is therefore of utmost importance to ensure that sustainable investments are not concentrated in already advanced economies such as Western and Northern Europe, exacerbating regional inequalities” and that a situation where capital remains inaccessible to less developed regions must be avoided.⁸⁰

2.4.3 Recognition justice – recognition of the marginalised

Berglund et al. conclude from the focus groups and interviews that they conducted in three cities in England (Bristol, Bath and Exeter) that there is a lack of recognition of

⁷⁶ [Abram et al.](#)

⁷⁷ [Berglund et al., “Just Transition.”](#)

⁷⁸ [Elena Dawkins et al., “Who Is Most at Risk of Losing out from Low-Carbon Transition in the Food and Transport Sectors in Sweden? Equity Considerations from a Consumption Perspective,” *Energy Research and Social Science* 95 \(2023\), <https://doi.org/10.1016/j.erss.2022.102881>.](#)

⁷⁹ [Shirley Walters, “Learning about Climate Justice in Times of Drought and Covid-19,” *International Journal of Lifelong Education* 41, no. 1 \(2022\): 45–59, <https://doi.org/10.1080/02601370.2021.1982038>.](#)

⁸⁰ [Bradley Loewen, “Coal, Green Growth and Crises: Exploring Three European Union Policy Responses to Regional Energy Transitions,” *Energy Research and Social Science* 93 \(2022\), <https://doi.org/10.1016/j.erss.2022.102849>.](#)

the concerns of the wider community, especially those living within the UK inner city regions. Berglund et al observe that these communities, who are more likely to be affected by the climate crisis and the pandemic, are often neglected in public debates and decision-making processes.⁸¹ Based on the current energy and housing crises in the UK, Smith et al. problematise the concept of inclusion, which as they note, is often limited to a liberal-individualist approach to energy justice that focuses solely on individual perspectives. They instead, propose a social-collectivist approach to justice which involves thinking about energy from a collective point of view where everyone benefits in order to open up possibilities for more transformative innovations and policies.⁸²

Abram et al. highlight how the COVID-19 lockdown and the resulting economic crisis, may have had long-lasting effects on children, especially on their mental well-being and on their development – effects which may have an

intergenerational impact⁸³ They therefore suggest that in coming up with policies for the transition to a low-carbon economy, we need to consider the complex and intersecting inequalities across the various dimensions of society that prioritise equity and fairness for all members of the society, including children's development and mental health. Walters notes marginalised groups, particularly black, poor, women and children, as being most affected by climate change, asserting that to achieve justice, it is important that we prioritise the needs and interests of these marginalised groups.⁸⁴ Mattar et al. also highlight the importance of recognition of marginalised groups in policy responses to the COVID-19 pandemic.⁸⁵

Dawkins et al. analyse the impact of the energy transition on the various demographics in Sweden.⁸⁶ Here, elderly people appear as a category that is likely to be impacted most by the energy transition, based on different factors. For example, changes in food and transport systems might

⁸¹ [Berglund et al., "Just Transition."](#)

⁸² [Adrian Smith et al., "Inclusive Innovation."](#)

⁸³ [Abram et al., "Just Transition."](#)

⁸⁴ [Walters, "Learning about Climate Justice."](#)

⁸⁵ [Mattar et al., "Climate Justice."](#)

⁸⁶ [Dawkins et al., "Who Is Most."](#)

have a negative effect on the elderly population, based on, inter alia, their location, income, consumption patterns and behaviour.⁸⁷ The authors argue that the transition to a low-carbon economy must consider different societal groups when coming up with policies that support an equitable transition.⁸⁸

2.4.4 Procedural justice – fairness in decision-making

For Abram et al., “effective participation and deliberation are essential to ensure that policy choices and business decisions reflect a diversity of experiences, perspectives, and knowledge, while not necessarily being sufficient” – these authors recall that the ‘infodemic’ undermined communication with regard to COVID-19 and that something similar could also undermine the transition.⁸⁹ They also noted that meaningful dialogue may be jeopardised by the need to make urgent decisions. Interesting aspects of procedural justice emerge in the study conducted by Berglund et al.: a disconnect between the concerns of the authorities and of civil

society, for instance, with regard to the role of care work in green strategies (civil society places more emphasis on their importance); the existence of “echo-chambers”, that is, the presence of the same individuals in climate-related consultations, the absence of those who are more affected, and the inability of public assemblies to generate actionable outcomes.⁹⁰

Addressing crises in Cape Town, Walters asserts that to achieve justice, it is important to have the voices of black, poor, marginalised, indigenous, women and men at the centre of concern, and identifies ecofeminism as a significant framework for understanding climate justice and just transitions.⁹¹ According to the author, social movements, and social movement learning, are instrumental in just transitions due to their potential in providing citizen education on climate justice and other environmental concerns, geared towards deep transformation. The same scholar brings what we see as a new dimension of procedural justice: governments’ responses to the pandemic were based on

⁸⁷ [Dawkins et al.](#)

⁸⁸ [Dawkins et al.](#)

⁸⁹ [Abram et al., “Just Transition.”](#)

⁹⁰ [Berglund et al., “Just Transition.”](#)

⁹¹ [Walters, “Learning about Climate Justice.”](#)

medical science but failed to take into account social sciences, which could have enhanced the legitimacy of the measures.⁹²

2.4.5 Space – intersectional injustices in urban areas

Issues of space emerge in different forms – the relationship between individual and place, the situation of deprived areas, and inequality between regions, cities and areas within cities.

Berglund et al. note that the pandemic led many individuals to rethink their relationship with place (from their homes to their communities).⁹³ They also note that the interplay between access (to certain resources, spaces, support, etc.) and exclusion was unevenly experienced, and thus that it exacerbated already existing inequalities.⁹⁴ Moreover, Dawkins et al. note that differences not only in personal circumstances but also in shared local circumstances will influence the effects of transitions on different societal groups.⁹⁵ Looking at the energy crisis in the UK, Smith et al. explain that differences in housing – as between those living in

rental properties and those living in their own homes – may undermine an equitable transition.⁹⁶ For example, individuals living in private rented properties face challenges in embracing renewable energy systems, such as heat pumps, due to lack of both tenancy security and incentives to invest in renewable energy systems; and individuals living in buildings with multiple occupancy tend to have limited control over communal energy service infrastructures, as some energy infrastructures – e.g. charging points for electric vehicles – require a private driveway.⁹⁷

Discussing green recovery and COVID-19, Abram et al. note that the COVID-19 pandemic placed UK ethnic minority groups and those living in economically deprived areas at higher risk of severe ill health and death, and argue that “[just transition] policy tools must take account of existing patterns of inequality across different dimensions of society, acknowledging that these are often far more nuanced and intersectional

⁹² [Walters.](#)

⁹³ [Berglund et al., “Just Transition.”](#)

⁹⁴ [Berglund et al.](#)

⁹⁵ [Dawkins et al., “Who Is Most.”](#)

⁹⁶ [Smith et al., “Inclusive Innovation.”](#)

⁹⁷ [Smith et al.](#)

than they might first seem".⁹⁸ Boyle et al., who propose that recovery from the pandemic must tackle environmental, economic and social issues in an integrated manner, observe that disadvantaged communities both in the United States and internationally have historically lived and worked near energy production and distribution sites, thus exposing them to environmental and health damage.⁹⁹

Explaining how the EU capitalises on crises to promote climate policy within regional development, Loewen notes that different European regions may have different experiences of energy transition and that policymakers should take regional differences into consideration and try to understand the different challenges and opportunities of different regions to promote a just transition.¹⁰⁰

Although the transition away from coal may lead to direct job losses in Central and Eastern Europe, the social impacts of the transition are

likely to affect communities beyond the directly impacted regions.¹⁰¹ Inequalities between areas in the same city (Cape Town) have been described in terms of creating a city of islands.¹⁰² Walters notes that the COVID-19 pandemic led to a significant increase in inequalities along the lines of race, gender, occupation and location, especially for those who lived in congested areas which made social-distancing impossible. According to Walters, the global and local nature of the crisis provided a strong imperative for collaboration among different groups and organisations within Cape Town.¹⁰³

2.5. Discussion

Crises and transition emerge in the literature as processes that run in parallel and that may undermine private and public finances and exacerbate historical and systemic inequalities against the same groups. For example, UK local councils, which were already

⁹⁸ [Abram et al., "Just Transition."](#)

⁹⁹ [Boyle et al., "Green New Deal."](#)

¹⁰⁰ [Loewen, "Coal, Green Growth."](#)

¹⁰¹ [Loewen.](#)

¹⁰² [Walters, "Learning about Climate Justice."](#)

¹⁰³ [Walters.](#)

financially constrained by past policies, were further affected by the pandemic, as they had to suspend or cancel transition policies. Among the social groups affected, attention should be placed on women, children and ethnic minorities. Further studies should investigate this with more attention, but our research suggests that crises and the transition, unless properly managed, may accentuate each other's negative effects on councils and communities. This should be a point of concern when preparing for the developing climate crisis and future crises. Although the literature suggests that crises may work as critical juncture events, it also reports that individuals and civil society became frustrated with the perceived loss of a green recovery opportunity that COVID-19 supposedly created. "Positives" that resulted from the pandemic were temporary and required high costs from all stakeholders. Moreover, there is a strong common point in the literature relating to the circular economy and in the just transition literature, in that circular economy and just transition principles and strategies should be incorporated into responses to the crises, not only to tackle the effects of the crises but also to build resilience with regard to the climate crisis and future crises. Also, responses should not

be fragmented – for example, focused solely on health or economic concerns – but should be holistic.

In terms of distributive justice, there is evidence in the literature that individual and civil society organisations feel that the pandemic exacerbated ingrained injustices against the same groups. It can be clearly seen in the circular economy literature that UK cities are too reliant on food imports, and the pandemic increased food insecurity, disproportionately affecting low-income groups and those living in deprived areas. The circular economy literature also shows that in the UK, children, women and workers in certain fields such as health and social care were disproportionately affected. The just transition literature explains that apparent "positives" of the pandemic, such as working from home (which, theoretically, promotes energy transition) should be seen in the context of injustices created (e.g. another financial burden for households). Interestingly, the just transition literature suggests that recovery policies should attend to the different carbon footprints between and within cities and should promote investments in the same innovative economic centres.

Turning to recognition justice, the literature suggests that the COVID-19 pandemic strengthened some narratives describing women as vulnerable. In both sets of literature there is some empirical evidence from the UK and elsewhere that individuals feel that recovery policies lack recognition of the precise natural and social environment where people live, and that public debate and decision-making lack recognition of the wider community. The literature asserts that recovery policies should clearly acknowledge the situations of women working in the informal sector,¹⁰⁴ of children, of the elderly and of ethnic groups.

Both sets of literature reinforce each other when addressing problems that we place under procedural justice. They both report the problems of a lack of connection between national and local authorities and a lack of inclusion in public debate and decision-making. The circular economy literature

emphasises that inclusion and trusted and actionable knowledge in times of crises are crucial, notably if there is politicisation of the scientific debate. The just transition literature asserts that inclusion and effective participation require that public debate and decision-making must reflect the diversity of world views in society. It also shows that health and economic urgency may undermine effective dialogue – a problem worsened by the fact that government and civil society do not always value the same factors in the same manner. Finally, the just transition literature warns against “echo-chambers” in public debate, in which the same individuals are always present.

Finally, in terms of space, the two sets of literature are also consistent with each other. Both sets show the interlinkages between the global, national and local. For the circular economy literature, the global linear economy creates ecological

¹⁰⁴ [The UK Office of National Statistics defines informal employment as referring to the situation of “people who identify as unpaid family workers”, which “includes individuals who are either doing unpaid work for their own business or a relative's business”. The latest data shows that in 2020 \(and historically\) there were more women than men in informal employment in the UK \(52,000 to 42,000\). Office of National Statistics, ‘Informal employment in the agricultural and non-agricultural sectors by sex, country, and region of the UK: 2012 to 2020’](https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/adhocs/13308informalemploymentintheagriculturalandnonagriculturalsectorsbysexcountryandregionoftheuk2012to2020)
<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/adhocs/13308informalemploymentintheagriculturalandnonagriculturalsectorsbysexcountryandregionoftheuk2012to2020> (access 12 September 2023)

degradation at the local level. Moreover, the literature shows that the high dependency that UK cities have in global food supply chains creates a weakness at the local level, undermining cities' ability to respond to crises that affect those supply chains. An interesting proposal is to look at the city-region relationship, instead of the city only, when discussing and implementing policies aimed at increasing food security. There is evidence that different stakeholders – individuals, civil society organisations and local councils – felt the shortcomings of the high reliance on global food supplies. The just transition literature suggests

that the pandemic forced individuals to think more in terms of community, bringing to the fore the need for authorities to acknowledge the difference in shared circumstances when responding to a crisis. An example of this is the different manners in which homeowners and tenants, or people living in richer or more deprived areas of the city, perceive the same crisis and the same responses to the crisis. The experience of Cape Town as a city of islands should be a warning against policies that fail to acknowledge differences between the experience of people living in different areas of a city.

Table 2.2 – Summary of main findings from literature review

Effects of the crises and transition	<ul style="list-style-type: none"> • Transition and crises accentuate each other’s negative effects and create or aggravate injustices. • Suspension of transition or circular economy programmes in the UK. • People frustrated with loss of opportunity for a green recovery. • Positives are temporary and highly costly. 	
Justice	Distributive	<ul style="list-style-type: none"> • Feeling of increased injustice and inequality against the same groups (for example ethnic communities) and new groups (for example care workers).
	Recognition	<ul style="list-style-type: none"> • Feeling that recovery policies do not acknowledge wider community and specific groups, for instance those living in deprived areas.
	Procedural	<ul style="list-style-type: none"> • Perceived lack of coordination between national and local levels of government. • Lack of proper inclusion in public debate and decision-making. • Lack of trust in the procedures. • Existence of “echo-chambers” in public debates.
Space	<ul style="list-style-type: none"> • Individual thinking more in terms of community. • Individuals and other stakeholders feeling the effects of the shortcomings of global food supply chains. • Policies do not reflect shared circumstances. 	
Policies	<ul style="list-style-type: none"> • Should be holistic, not fragmented. • Must promote effective participation in public debate and decision-making. • Must acknowledge the differences in shared circumstances. 	

3. Methodology Employed in the Empirical Research

3.1. Research Design and Sampling

The empirical research consisted of a small-scale exploratory study involving the collaborative research design and regular discussions on the strategic directions of the research with Zero Waste Scotland.

The investigations focused on four core objectives:

- to explore how people understand and apply just transition and circular economy transition principles in their everyday lives
- to understand the impact of the cost of living crisis on individual and collective attitudes and behaviour towards the transitions
- to identify the barriers and challenges for individual and collective engagement with the transitions
- to explore approaches and strategies to encourage positive

behaviours and attitudes towards the transitions.

To address these objectives, the research uses a Multi-Strategy Research (MSR) approach,¹⁰⁵ consisting of the review of the literature (chapter 2) and primary data collection comprising:

- a) seven individual semi-structured interviews with experts currently working in the fields of circular economy, net zero, local authority, climate justice, individuals' rights and fairness commission projects;
- b) four focus groups with individuals from local communities in Dundee and Stirling;
- c) one focus group with community and grass roots experts currently working within education, circular economy projects and local authority.

¹⁰⁵ [Matt Henn, Mark Weinstein and Nick Foard, *A Critical Introduction to Social Research*, 2nd ed. \(London: SAGE, 2009\).](#)

3.2. Primary Data Collection

We conducted primary data collection (April–June 2023) to have an insight on the issues affecting people’s behaviours and attitudes toward just transition and circular economy in the context of the cost of living crisis in Scotland. Our intention was to approach the topic from diverse angles to capture views from experts in the field as well as from individuals. Experts provided views based on their professional experience; individuals contributed views based on their lived experiences. This enabled us to bring together different world views of the topics falling within the scope of the research.

3.2.1 Interviews with experts

Seven semi-structured interviews were conducted with experts in April, May and June 2023, with the purpose of (a) addressing the objectives of the research and (b) gaining insights to inform the focus group discussions. All interviews were conducted online via Microsoft Teams by at least two members of the research team and followed a consistent set of semi-structured questions with follow-up questions. The questions had been discussed and agreed in advance by four members of the team. Interviews lasted around 90 minutes on average.

See Annex 2 for expert profiles and Annex 3 for interview questions.

We used purposive and small-scale sampling for the interviews, which enabled us to interview experts working across Scotland in the fields of energy transition, poverty and circular economy. These individuals have specific backgrounds relevant for the research and were able to contribute in-depth knowledge and experience as well as a more encompassing understanding of the aspects in discussion. Two of the interviewees are experts in individuals’ rights and social justice who work in Dundee and Stirling.

3.2.2 Focus groups with individuals

Four focus groups with individuals from communities across Dundee and Stirling were conducted in June 2023. In total, 18 individuals were involved. All sessions were held in person and lasted approximately 90 minutes. Recruitment was carried out through invitations to known contacts and networks across organisations in Dundee and Stirling. Invitations were disseminated by poster and email across different platforms, community and residential spaces, with the aim of engaging with potential participants from across different socioeconomic demographics. The focus groups were designed to have four to eight participants and followed a consistent set of questions and stimuli for all

groups to respond to and generate discussions from. See Annex 4 for focus group questions.

Two focus groups involved individuals experiencing deprivation, poverty and marginalisation, recruited through crisis-support community-based organisations which are dealing directly with issues related to the cost of living crisis in Dundee and Stirling. Two focus groups were composed of people from middle-income socioeconomic demographics; they were recruited through community networks and extended contacts in both urban areas.

The research design was informed by socioeconomic demographic parameters and descriptors from the National Statistics Social-Economic Classification,¹⁰⁶ Social Care Scotland indicators and the Scottish Government SIMD indicators¹⁰⁷. We sought to recruit participants from different socioeconomic strata. However, we did not seek to classify participants according to our perception of their socioeconomic status; instead, we allowed for participants to define their own social, economic and work status. Recruitment of high-income socioeconomic demographic participants proved extremely challenging within the tight time frame

for the conclusion of the investigations, despite a diverse approach to recruitment, which included poster advertising across several venues and emailing through network and mailing list invitations. A decision was made not to go ahead with the high-income focus group but to organise a focus group with experts instead, as described below.

3.2.3 Focus group with experts

One final focus group was conducted in June 2023 with key stakeholders to explore specific issues emerging from interviews with experts and focus groups; for this we used a purposive sampling approach through existing contacts and community projects in Dundee and Stirling. The objective of this focus group was to cover aspects related to (i) the interfaces between poverty and the transitions and (ii) strategies and approaches to engaging with and enhancing the agency of marginalised communities. This focus group involved three participants from diverse fields (academia, community-based organisations, local authorities). It took place online via Microsoft Teams and lasted approximately 90 mins. See Annex 2 for expert profiles and Annex 4 for focus group questions.

3.2.4 Research ethics

¹⁰⁶ [ONS, "National Statistics"](#)

¹⁰⁷ [Scottish Government, "Scottish Index"](#)

This research project was approved by the University of Dundee Research Ethics Committee (approval code UoD-SHSL-ED-STAFF-2023-001) on February 16, 2023.

3.2.5 Participant recruitment and arrangements

Experts were identified through our professional network and with the help of Zero Waste Scotland, which had no influence on the selection of participants other than suggesting a list with names and facilitating contact with participants on our request. All experts were keen to disclose their names, as they were all public figures working in the field.

Participants for the focus groups were identified through partner organisations that acted as gatekeepers. Our points of contact in these organisations were briefed on the research and advised on how to approach potential participants. Further detailed information on the research was provided by a member of the research team to participants prior to the beginning of the focus groups, when consent from participants was obtained. Each focus group took place in an accessible location, where a reserved room was made available.

3.2.6 Participant consent

All interviewees and participants (henceforth "Participants") were fully informed about the scope and

objectives of the research prior to giving consent. All Participants had access to the Participant Information Sheet and the Consent Form by email prior to the day of the interview or focus group, to allow for any questions arising in advance.

Participants were offered the option to send their consent via email or to complete it on the day if attending in person (for the focus groups). A member of the research team reclarified all consent and confidentiality arrangements, answering any questions and explaining the procedures at both interviews and focus groups. This was done prior to audio recordings commencing.

3.2.7 Recording, anonymity, and confidentiality

All participants agreed to the audio recording carried out either through Teams (online sessions) or audio devices (in-person sessions). Online interviews and focus groups were video recorded and then a converted audio file was created. In-person focus groups were recorded with a voice recorder device. All audio recordings were sent to a GDPR-compliant professional transcribing service and anonymised prior to the transcript analysis stage. Where interview participants requested to view and redact their transcript prior to analysis, arrangements were made accordingly.

3.2.8 Payment of participants

Participants experiencing deprivation, poverty or marginalisation were compensated for their time, and the travel costs of all participants were reimbursed where requested.

3.2.9 Analysis methods

The research team used a thematic analysis approach, with five research objectives identified in a standardised analysis framework for consistency of analysis. Within these objectives a range of deductive themes (codes) allowed for dense coding across all

transcripts using colours and numbers, with an option to include open coding of themes should more emerge during the process.¹⁰⁸ The objectives and themes were generated from the overarching research questions, as well as iteratively through notes that the members of the research team made during the interviews and focus groups. This was done prior to the analysis of the transcripts, in order to provide a systematic and comprehensive set of themes (codes). See Annex 5 for details of the analysis framework and process.

¹⁰⁸ [Louis Cohen, Lawrence Manion and Keith Morrison, *Research Methods in Education*, 8th ed. \(London: Routledge, 2017\), <https://doi.org/10.4324/9781315456539>.](https://doi.org/10.4324/9781315456539)

4. Research Findings

The following sections provide summary key findings through the synthesised analysis of transcripts from the one-to-one interviews with experts and discussions within focus groups (henceforth, interviews and discussions may be collectively referred to as “Discussions”).

4.1. Understanding Of Just Transition and Circular Economy

4.1.1 Understanding of just transition

Consistent with our knowledge of the field, the concept and principles of just transition are understood by those working within the fields of energy transition, circular economy, net zero projects, fairness projects, transition projects and climate action, but were not initially familiar to participants in focus groups. Nevertheless, in interviews and focus groups, some aspects of just transition are highlighted: community, infrastructure, inclusion, fairness, and ownership.

Indeed, in Discussions, just transition was perceived as being interrelated to community, economy, workforce and infrastructure, where there needs to be dialogue across communities, industry and governance bodies. However, Participants noted a lack of engagement

with local communities. Participants showed awareness of the extent and scale of changes required across multiple systems, processes and sectors to put just transition into practice. Local to global supply chains, funding and investment changes, procurement changes, community engagement and democratised governance, training and skills development were all mentioned.

In addition, some Participants raised concerns that there is not enough consistent thinking or cross-sector dialogue to achieve just transition and that expediency remains deprioritised. One of the Participants noted that because of the urgency and the time frame of the transition, there is a need for larger investments and collective efforts to drive the transition that goes beyond individual efforts and capacities.

Participants asserted that just transition requires community knowledge to understand historical and existing injustices affecting different socioeconomic demographic groups. Also acknowledged is the need to work with communities to identify equitable and fair processes and actions that are necessary for the just transition. Significantly, most focus group participants were not aware of any prior consultation about just transition

within the urban areas where they lived or worked.

Just transition was described by Participants as requiring place-embedded infrastructure, consultation with communities, wider and more inclusive engagement with different groups, and benefit for communities. The following examples and suggestions emerged in the Discussions:

- local ecosystems for accessibility and centring around community hubs for building local economies and equitable decision-making
- energy and waste systems becoming part of more localised supply chains and employment, reducing dependency on global supply chains and their related carbon footprint
- 20-minute neighbourhoods as an applicable/tangible model
- thinking micro to macro for localised systems of energy and waste that are more capable of reacting to socio-environmental justice issues impacting on global supply chains.

In some Discussions, the aspects of community, infrastructure and justice were related to ownership:

“So, a just transition for me is one that is, is built on fairness so nobody, nowhere is kind of left behind, and the way that I would sort of weave that into my work and everything that I do is to

make as much of my workplace based. [sic] So, work with people in their space, in their business and where they live to make sure that they’re, it’s their, it’s them, they’re transitioning.” (Expert 4)

4.1.2 Understanding of circular economy

Similarly, understanding of circular economy varied across the Participants. Experts working within the field were able to define the term but also acknowledged the need for further information.

“We’re in a linear economy, it’s a big transition that’s required in terms of upskilling and behaviour change and education and I think, you know, you could say the same more generally about, about the whole transition to net zero. The level of climate literacy, circular economy literacy is very, very low, and that I think from my perspective needs to be addressed at social and business level if we’re really going to benefit from, from the transition over the next 10/15 years.” (Expert 5)

Community members were able to give examples of circular economy initiatives. However, some Participants demonstrated unfamiliarity with the term.

“Some people have described it to me in terms of products and

materials being made into something and then that thing being used, instead of it ending up in landfill. And it gets recycled or reused or something like that [...] Other people view it more in terms of like imports and exports, I guess. Moving things within the UK rather than shipping things around all over the place [...] And then some people seem to think it's more about the kind of keeping things local, I guess. Trying to be the neighbourhoods stuff." (Focus Group Participant)

Some Participants did not identify existing infrastructure, such as second-hand shops and repair shops, as part of a circular economy ecosystem. This seems to compound the low familiarity with sustainability more generally that some Participants displayed. From the Discussions, it seems to emerge that individuals who do not have a familiarity with sustainability have more difficulty relating circular economy principles to their everyday lives.

Participants working within communities highlighted circular economy as a principle and way of living. They also depicted circular economy as an opportunity for building solidarity, resilience and collaboration and as an interface for linking social justice with the environmental and climate agendas, without circular economy becoming an additional pressure or abstract idea.

Importantly, some older Participants related circular economy practices to lost habits and skills, which they ascribed to increased consumerism and cheaper global production of clothing, equipment and technology.

4.2. Application and Approaches to the Transitions

Although experts in the field understand the concept of just transition, they did not give tangible examples or practical applications of just transition. The situation is different with regard to circular economy, for which many examples were given by Participants.

All Participants shared examples of community-based projects, which were seen as crucial to tackle stigma and nurture a culture of solidarity and trust.

"I think also the principles behind circular economy can really help create a sense of community and this concept of living and functioning and thriving together [...] it actually brings people together because it's not something you can do on your own, and that obviously is quite big in terms of tackling kind of these wider social issues as well." (Expert 4)

"I think the action and the motivation and the inspiration, if you like, for generating trust, and

therefore activity towards just transition and changing our behaviour as far as climate change is concerned, really needs to be a local thing. I think it comes down to relationships between people and how they work together. And also how they moderate each other and bring in different ideas and help to dispel the fake news or to inform more clearly. I think we need communities to work together in order to generate that trust.” (Expert Focus Group Participant)

Participants identified recycling and reuse as applications of a circular economy, and food and clothing were mentioned as sectors of relevance. Food production and food security were suggested as a key area for emerging circular economy approaches for communities, with reference to local farms, composting and growing hubs and the impact on supply chains during the pandemic.

Participants connected to commerce and community arts mentioned designing and embedding circular economy approaches into the product and service or establishing themselves as part of a circular economy infrastructure. Examples of sectors are jewellery, florists and reuse hubs.

Participants were also able to identify grass roots and community initiatives

and relate these as responses to the cost of living crisis. Examples included:

- food larders, community fridges and community gardens to prevent food waste and food poverty
- warm hubs in response to fuel poverty and for social connection
- community cafes for social connection and to reduce food waste and prevent food poverty
- tool libraries, repair hubs and cafes to offer workshops and skill-sharing activities to promote inter-generational engagement
- money-saving demos in response to the cost of living crisis, for example air fryers and clothing repairs
- collaborative networks, for example second-hand shops and clothes swaps, to respond to the immediate needs of communities.

In the way that the examples are articulated, we can identify individual concerns (e.g. saving money) but also social concerns and social justice concerns (e.g. avoid wasting food, tackling food poverty). Further, we can identify concerns with the environment.

“A lot of it can actually save you money, cut down your energy, cut down your food. We are always careful how we communicate these things to people on low incomes especially, because it can come

across really patronising, so we are quite careful about championing that; this will save you money if you do this, but it's also really good for the planet. It's a secondary thing, it's about the language that you communicate it with, I think.”
(Expert Focus Group Participant)

4.3. The Impact of Different Crises

4.3.1 At the individual level

Participants mentioned the aspect of multiple crises, the COVID-19 pandemic and the cost of living crisis occurring in parallel, which makes it harder for individuals to focus on the transitions. The war in Ukraine and the energy crisis further overshadowed the urgency of climate action, which has then been diminished in people's minds. The combination of crises has the potential of changing people's attitude, as they must prioritise more immediate concerns that require people's attention, such as feeding their families. Furthermore, the cost of sustainable alternatives renders them exclusive and unaffordable to those experiencing deprivation, therefore preventing them from choosing more sustainable options.

Participants noted that to enhance the understanding and participation of individuals in transitions, there is a need to link these concepts with their everyday lives for a practical

understanding on how these concepts operate in real-life situations. Also, some Participants noted the need for a discussion about the ethics, fairness and proportionality of expectations about consumption habits, notably with regard to the amount consumed and wasted by different socioeconomic demographics.

“If we're asking those with the least to make an effort, we need to be asking those with the most to make a much bigger effort. If you're scared it will be on the individual, you are also looking at companies who are producing things, reducing their impact on the environment. I know there is a lot of work going on in the background on that and that kind of thing, corporate responsibilities and corporations, third sector, private sector, public sector, all trying to get to that net zero. It's about proportionality.”
(Expert Focus Group Participant)

“There needs to be an ethical underpinning to everything we teach, and it needs to be quite explicit with our students so that they are thinking about the way in which they are going to use the knowledge that they have or the experience that they have in a manner that is not going to exploit anybody or anything or any part of the planet.” (Expert Focus Group Participant)

Inadequate communication was also pointed out as being a barrier to engaging with circular economy, as inappropriate communication leads to lack of understanding and to confusion. Participants identified effective communication as one of the strategies that will play a vital role in addressing stereotypes, perceptions and stigma that may be associated with circular economy initiatives, raising awareness of these initiatives and normalising circular economy practices such as food waste reduction. Furthermore, effective communication was also pointed out as being essential for consumers to understand the importance of the transitions, which can influence their actions and habits, and for promoting change. Examples given by Participants of effective communication included “clear and well-framed information that has genuine examples” (Expert Focus Group) and utilising community-based and lived experience examples, success stories and local collaborations alongside more joined-up and cohesive messaging across the different policies and legislation for climate action, sustainability, circular economy and the just transition to net zero. It was commented that there is a lack of awareness and communication regarding some of the government guidelines and regulations on the transitions and that this could hinder positive behaviours and attitudes. It was noted that there is a need for clear

government action and direction to move transitions forward.

Participants noted that lack of trust in local and national governments jeopardised the transitions. An example was distrust in one local council’s recycling practices and the perception of some Participants that recycling was not being actioned properly and that all waste and recycling was incinerated instead, which created a sense of cynicism and demotivation for some Participants. It was noted by some Participants that this can also lead to doubts about the overall environmental benefit and effectiveness of circular economy initiatives such as the Deposit Return Scheme. Participants were aware of how the scheme would operate and were supportive of its introduction, but raised concerns about the complexity of its design, with bar coding, the cost implications on small businesses, and shared frustrations at the UK government veto all mentioned.

Participants were also critical of government initiatives that were aimed at providing incentives for large-scale sustainability initiatives such as purchasing electric vehicles or solar panels, which exclusively benefit only those who can afford them; this was highlighted predominantly by Participants living in social housing or private rental properties. This can discourage individuals who are making small positive changes in their everyday

lives from engaging with the circular economy or a just transition.

Some Participants expressed concern about the effect of the media on the education of the younger generations. These Participants perceived that younger people have lost some of the skills important in terms of circular economy, such as sewing and other DIY skills, which used to be passed down through the generations.

It was noted by some Participants that COVID-19 triggered a heightened sense of consciousness with regard to global supply chains and the need for people to be provided with practical solutions to address some of the underlying issues accompanying the transition to a low-carbon economy.

4.3.2 At the community level

Participants expressed concerns about the costs involved and the lack of funding given to implement certain projects such as refill shops, which becomes a barrier in many communities who are keen on engaging and participating in circular economy initiatives. One Participant noted that due to the cost of living crisis fewer people were volunteering across community-based projects, which has a knock-on effect on many civic society and circular economy projects; examples given included running food larders, refill shops, tool libraries and community advice support projects. It was noted that there is a need to invest

in more circular economy initiatives, such as recycling services being more accessible and the improved provision of longer-term funding for reuse hubs and community projects, so that they can get established and encourage consumers to engage in more positive behaviours and attitudes.

Lack of access to and even awareness of circular economy initiatives, such as repair or recycling services, was considered to be a barrier to engagement at the community level. Conveniently located and accessible services were described as crucial to enhance participation in circular economy initiatives. The lack of proper planning and infrastructure by city councils (for example cycle lanes) was noted as being one of the factors that can discourage individuals from adopting positive behaviours and attitudes towards the transitions. A couple of Participants mentioned that public transport needs to be cheaper and more reliable across Scotland in support of climate and social justice needs.

“[The] Scottish Government made a really good decision to make bus transport for under 21s free. Now, there’s mixed views on this but I think in general it’s brilliant, because what you have is young people getting into the habit of using the buses all the time [...] So you are creating a different

mind [...] set just by making that free transport.” (Expert 7)

Government actions were also discussed, such as the installation of an incinerator in a low-income area in Aberdeen and the impact that it has on the surrounding communities, especially on their health (Expert 1). It was highlighted that low-income communities are often not involved in decision-making processes that have significant effects on their livelihood. This can hinder their participation and engagement in the circular economy and in the energy transition, as they are likely to feel that their voices and concerns are not being heard and addressed by the government.

4.3.3 At the national level

Interviewees noted that the COVID-19 pandemic disrupted the timelines of various initiatives such as the Circular Economy Route Map, the implementation of which had to be expedited because it was considered to be part of the green recovery. This jeopardised consultation and refinement, which would have provided a good opportunity for a more comprehensive and inclusive process.

Moreover, some Participants raised a Brexit-related concern: they noted that Brexit resulted in the UK eliminating some of the environmental laws inherited from the European Union (EU), which had significant effects on

environmental efforts within the UK. The EU has been at the forefront of promoting the transitions; furthermore, the EU is considered as having enough influence to drive changes with regard to the environment, due to its power and influence. Brexit also disrupted global supply chains, thus emphasising the need for the UK to reassess its reliance on imported products, which became a problem following the outbreak of COVID-19. It also highlighted the importance of developing a resilient food market that depends less on imported products and that moves instead, through circular economy practices and initiatives, towards a more self-sustaining economy.

The Scottish independence result was also noted as one of the factors that had a very big impact on people’s participation and attitude towards larger political and social issues, causing apathy among the population. An expert noted that tensions between the UK and Scottish governments have further jeopardised the transitions.

“I would extrapolate that out and say actually the level of understanding across the whole public sector is fairly limited and there’s a whole range of training that will be needed to help us be the leaders in that space, and that will then feed through to communities as well, but it is a

challenge, you know, and I don't think we can ever expect everyone to be, you know, climate experts or circular economy experts, but if they're going to engage with it they need a basic level of literacy, and it's just not there at the minute." (Expert 5)

It was observed that overlapping mandates between the Scottish Government and the UK Government in areas such as energy and the environment can create many uncertainties and a lack of accountability. This may hinder Scotland's efforts in matters relating to the just transition and circular energy transition.

It was noted that lack of government support and funding can discourage businesses and consumers from investing in sustainable alternatives, for example the Dundee E-bike scheme, which collapsed due to the withdrawal of government subsidies. One of the Participants noted that because of the urgency and the time frame of the transition, there is a need for larger investments and collective efforts that go beyond individual efforts and capacities.

Another aspect that emerged in interviews related to the shifting priorities in times of crises. Participants showed concern that other issues, such as provision of essential services, have

taken precedence over sustainability in most local authorities. Therefore, matters relating to transitions have been relegated as side issues rather than considered as being of utmost importance and urgency. This has resulted in a disconnection between service delivery and sustainability issues within local governments.

The political crisis also emerged in the Discussion. It was observed that politics and short-term focus by political parties undermine environmental priorities. Governments must commit to sustainability efforts instead of greenwashing or involving themselves in short-term projects that end up failing. A lack of genuine effort from the government can create a lot of frustration and mistrust for individuals and communities, who might end up feeling that their efforts are not making a difference and thus might become less motivated in making environmentally friendly choices. An example of lack of commitment is the delay of the Deposit Return Scheme, which was meant to promote a circular economy in Scotland.

Participants observed that for governments to make more meaningful and impactful changes, there is a need for dialogue and engagement between the government and the public. In most cases, government actions may be misaligned with the needs and perspectives of the public, and therefore

a lack of dialogue leaves individuals feeling excluded in the decision-making process.

4.4. Cost of Living Crisis and The Transitions

4.4.1 Food and fuel poverty

Interview results show that food poverty is a major concern. Increasing inequality and deprivation have further compounded access to affordable and healthy food, creating 'food deserts' within local communities. Increasing energy costs have meant that preparing food and using kitchen equipment and facilities is challenging for those experiencing poverty. Increased use and reliance on food banks means that food larders and community fridges are also becoming a core element of crisis response.

Similarly, fuel poverty is a major concern that is related to food poverty. Increasing prices left some individuals unable to heat their homes, with impacts on health and other areas of their lives such as cooking meals. Not being a home owner was highlighted as a barrier to accessing subsidies and having agency to make decisions about energy providers, energy charges or adaptations to housing. Participants noted that energy-efficient items are too expensive, or are perceived as too expensive due to existing promotion and messaging. It was also highlighted that inequalities and fuel poverty

existed previously but have been aggravated by the cost of living crisis, and grants and subsidies have not mitigated them.

"I think lower working class, unemployed, disabled people who are on fixed low incomes in disadvantaged groups that we can speak quite clearly about would love to aspire to have the choice to be more engaged in that concept." (Expert 6)

In focus groups, Participants noted that increasing wealth imbalance creates a sense of unfairness. They also noted that it creates the unfair expectation that individuals experiencing poverty and deprivation should make sustainable choices while these same individuals lack the financial capacity, time, resources and access to government subsidies such as tax incentives for electric cars. Making sustainable and green choices is considered a luxury due to cost, and people are in survival mode. Further, the psychological impact of experiencing poverty and deprivation means that sustainable choices are not a priority, especially when individuals face social exclusion, lack of access to careers, education and training, and other opportunities. Individuals trying to make ends meet are also less likely to engage with consultations or projects focusing on sustainability.

Transportation was raised as an additional challenge, as the costs of

public transport remain very high for those experiencing poverty or marginalisation, causing social isolation.

“So yeah, I think there is an openness for people of higher incomes, still, to think about more sustainable choices. And that’s brilliant and of course that needs to be encouraged, but I think there’s also this tendency to blame individuals for their consumption. And that is a message that needs to be sent to people who are at the higher end of the scale, because they are doing most of the consuming, but it’s not fair to put that onto people who are struggling to buy basic necessities.” (Expert 1)

Participants highlighted that historical and systemic inequalities, experiences of poverty and marginalisation were already an issue prior to the cost of living crisis, preventing them from engaging with climate and net zero action. Fuel poverty was raised as a challenging circumstance: being unable to cook, heat one’s home or have agency over any financial support has had a knock-on effect to people’s mental health, physical health and the ability to enjoy hobbies. Not being a home owner was also raised as making things difficult, because tenants rely on housing associations or private landlords to adapt properties to be more energy efficient.

Further, Participants noted that some of the behaviour changes resulting from the cost of living crisis may not necessarily be environmentally motivated and may therefore be temporary. When more expendable income becomes available again, previous habits of consumption may return. Nonetheless, Participants also noted that they want some circular economy services to continue to be provided.

“How the Reuse Hub is a space where people could come in and repurpose some of their stuff. So there was a textiles project, for example. Your folk would come in and make their clothes [...] And then that led into a woodwork project [...] just very basic kind of woodworking skills and lifting confidence. So it’s not about making carpenters out of people, but just using that stuff that would have otherwise gone to waste to create something new from it, skills, confidence, but also something that could be used or sold even.” (Focus Group Participant)

4.4.2 Participants’ diverse attitudes and behaviours

Across all demographics of Participants there are some individuals who are committed to environmentally friendly and socially just consumer choices, some who take small actions, and some who do not or cannot prioritise greener

choices. For example, second-hand clothing and vintage purchases appear to be more popular across youth demographics but are also still associated with stigma for many, because it is not a choice but a necessity. Reuse hubs and second-hand shops, which use a message of 'reducing waste', are bridging some of the stigmas, because shopping second-hand and preventing food waste are presented as environmental benefits and not due to socioeconomic need or poverty.

Community fridges, mentioned by many Participants, are designed for any demographic of society, and have experienced increased use and engagement as a response to the cost of living crisis. At the same time, they are bridging the gap between different socioeconomic backgrounds towards the transitions. Many fridges are spaces of knowledge exchange across and between individuals to share skills and ideas for more sustainable choices while also benefiting people who are experiencing poverty.

In privileged communities, children are perceived as being more concerned about the environment, recycling and their carbon footprint, because they belong to a socioeconomic demographic that can afford time and resources to engage in a culture of being environmentally friendly. This was mentioned as increasing the stigma

towards certain groups who are less able to engage with environmental practices due to socioeconomic pressures.

4.4.3 Stigma and shame associated with the transitions

"And I think, in my community, the people I work with, see that as a sign that you're struggling sometimes. That you're repairing things. And actually you want things that look fresh and new and sparkling and clean, because that is something that you can kind of showcase that you've got money and you're doing okay, if you know what I mean. Rather than that feeling of that you're repurposing things, maybe a sign of poverty sometimes to some people, and that can sometimes be an issue." (Focus Group Participant)

Participants impacted by the cost of living crisis and experiencing deprivation or marginalisation shared concerns associated with purchasing second-hand food and products.

Reliance on community food banks/food larders and second-hand shops reportedly creates a sense of stigma and shame; relying on these services felt embarrassing and brought up feelings of self-judgement or a sense of external judgement. Participants mentioned that they would not tell friends or colleagues about using food banks or food larders, due to the social

stigma, and that falling on hard times due to the cost of living crisis was difficult, especially when they had previously been able to afford groceries and luxury items (non-essentials).

“The conversations that we have at the fridge, and other projects – we do get a mix of people [...] everyone’s welcome. We want people to feel if they are in need and do need to come that they’ll not feel embarrassed because we’ve got other people that don’t need to come. But we’re all helping towards the same end of saving food. So come to the community fridge.” (Focus Group Participant)

Participants also highlighted a hidden impact of socioeconomic differences on an individual’s approach to the transitions. Those impacted by deprivation and marginalisation would feel stigma and shame because they had no other option than to resort to circular economy initiatives; other individuals would buy second-hand goods and use food larders as a lifestyle choice without associated stigmas and would have the financial ability to purchase goods and food in other ways. Further still, Participants noted that sustainable actions are being forced onto individuals experiencing higher deprivation and marginalisation by the cost of living crisis. These actions do not result from free choice. This was

related to the frustration felt by individuals experiencing deprivation and marginalisation who were unable to make other sustainable choices, considered to be ‘luxury’, due to them requiring more money; such choices include accessing more nutritious food, longer-life clothing and improving homes to reduce energy consumption.

“I had to take a food bag to someone that I know, because they won’t – even though they’ve got anxiety, they just don’t – that’s not stopping them, they just don’t like the thought of being judged on that.” (Focus Group Participant)

4.4.4 Overcoming stigma and shame

In the discussions, many Participants from different socioeconomic backgrounds noted that food larders, community fridges, community cafes and second-hand buying with an emphasis on reducing waste alleviated feelings of stigma and shame.

And I see that. Like I see people coming in and they’re a bit, like, cautious about it. And maybe they don’t buy some kind of things. It’s like you were saying, like what does it say about them? [...] That it doesn’t mean they’re poor. But then they see everybody goes in there, and that’s not – that’s not the situation, so. I think those hubs

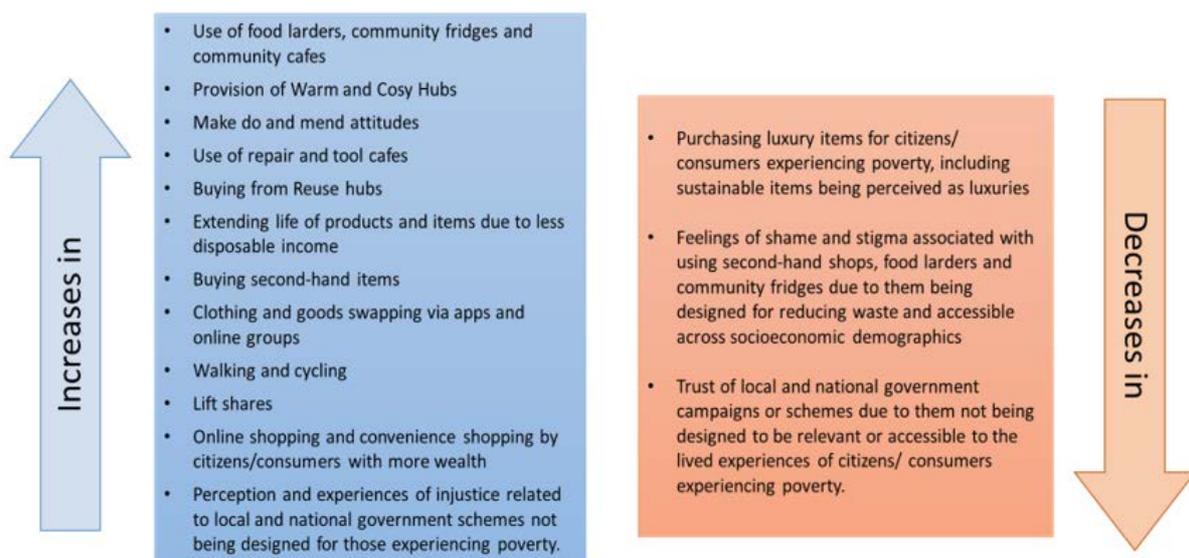
are valuable. Like those spaces for – and also we have, like I said, all the second-hand absolute necessities up to, like, really expensive upcycled things. It’s not just one kind of portion of society that are being invited in, it’s for everybody.”
(Focus Group Participant)

The reframing of these services and projects as being available for everyone, and the idea that individuals were contributing to environmental or climate actions and local circular economy systems, shifted perspectives and created a more inclusive space for people from diverse backgrounds to meet.

Reuse hubs and skill-sharing workshops also brought back the sense of ‘make do and mend’ of older generations for clothing, electrical items and furniture or household items. In previous generations this was very normalised, and again it is shifting the stigma associated with not being able to buy new towards the environmental and climate action agenda.

“I think since COVID there certainly has been a surge in the way that communities are responding to challenges that would be perceived to be within sort of circular economy principles even though they might not know that’s what they’re doing.” (Expert 4)

Figure 4.1 – Impact of the cost of living crisis on the transitions



5. Discussion of Research Findings

In this chapter we bring together the conclusions of the literature review (chapter 2) and the findings of the empirical research (chapter 4) in a focused discussion aimed at drawing the main conclusions of the research with regard to the effects of the crises on energy and circular economy transition in urban areas.

It is important to note that the Discussions were carried out in May and June 2023, i.e. during the increase in the cost of living crisis. This crisis – compounded by the COVID-19 pandemic and the Russia–Ukraine war – permeated the Discussions, even when not clearly addressed in specific comments.

We organise this discussion pursuant to the framework adopted in chapter 3: perceptions on the effects of crises on the transitions (section 5.1); 5.2. perceptions of justice in transitions in times of crisis (section 5.2); perceptions about the crisis and transitions and the lived space (section 5.3); and insights relevant for decision-making (section 5.4).

5.1. Perceptions on the Effects of the Crises on the Transitions

We start with a general note that shows a main effect of the many issues discussed below. In the Discussions, the Scottish transition was perceived as moving too slowly to be achieved by 2045, and a shared vision was required, or at least the stages and application of just and fair systems/processes need to be made more evident and showcased.

“The just transition itself, I think, is moving too slowly. I think there needs to be, like, a much sharper vision so that the kind of pull of opportunities can be seen, and also I think the support, especially from government, I think the support should already be in place for that transition.” (Expert 2)

5.1.1 Shifting priorities: individuals and government

Discussions are consistent with the literature review, in that the COVID-19 pandemic shifted priorities and attitudes of most consumers away from sustainability issues towards more

immediate and pressing needs.¹⁰⁹ For example, Participants noted that many people shifted to more convenience-driven and consumption culture, such as an overreliance on online shopping and delivery services. Similarly, there is a perception that global events and crises such as the Ukraine war and energy crisis have overshadowed the urgency of climate action.

“But that takes a lot of intervention, I think, from the state more than anything. So yeah, the recent crises have been, I think they’ve really, they’ve knocked the climate, they’ve knocked sustainability and they’ve knocked especially the circular economy down the pecking order, so that it’s much more focused on issues that people are being reactive to rather than trying to work out what the solution is for the system for the long term.”
(Expert 2)

Discussions also addressed the unsuccessful attempt at Scottish independence. Participants noted that this had a negative effect on people’s attitudes and behaviour towards larger political and social issues – which, as noted, has also impacted their

participation in various political and societal matters.

“I think there’s lots of competing elements around the participation aspect of it. And I also think elements such as, you know, the independence question shouldn’t be overlooked, I think it’s a big aspect to it as well. I think in 2014 there was a lot of people became disillusioned, because if you look at the demographics in Glasgow there was a big movement from the working classes and the lower classes to the independence movement, because they could see that there was an opportunity there for taking that power from Westminster, and that was denied them. I think that that dissipated a lot of that feeling again, and I think that kind of created almost, like, again, that kind of passive role where people just accept what they’ve got and they just move on, instead of taking control and trying to change things.”
(Expert 2)

5.1.2 Frustration

Consistent with the literature review, the Discussions reveal frustration at the

¹⁰⁹ [Grodzińska-Jurczak et al., “Contradictory or Complementary”](#); [Argentiero et al., “Waste Recycling Policies”](#); [Vanapalli et al., “Challenges and Strategies.”](#)

abandonment of certain projects.¹¹⁰ Delays to national projects such as the Deposit Return Scheme have left uncertainty and potentially a loss of momentum where Scotland aimed to be taking a leading role in establishing a circular economy.

“There’s a lot of ambitious plans, there’s lots of targets, but none of those seem to be being met. There’s very little action happening, and in fact the decision [...] to delay DRS [Deposit Return Scheme], one of the possibly most concrete examples of how we could have created a circular economy in Scotland, has stalled again and is becoming an example, I think, of somewhere where this continual delay is just as damaging as doing nothing. [...] It’s a pivotal moment for Scotland [...] in terms of the circular economy and how it wants to and can take that agenda forwards.” (Expert 1)

But there is also frustration and mistrust towards corporations suspected of having profited from the crisis.

“And the things, I feel as if a lot of things have been covered up, and the climate issue is constantly being diminished in people’s minds by things like the

Ukrainian war, by the energy crisis. You know, people talk about the energy crisis and they talk about the profits that are being made by the corporations, they talk about that, the prices they’re having to pay et cetera, but nobody is actually talking about the system. Nobody’s actually talking about how do we make a change here. The changes control the system, you know we should be controlling the system.” (Expert 2)

5.1.3 The Positives And Negatives

Discussions also confirm the perception that the positives are temporary, but they also reveal new hidden negatives. We begin with a description of perceived positives.

Participants reported positive changes of habits because of the crisis. People who were not willing to go for second-hand clothes are now doing so. Young people in their 20s and 30s are increasingly willing to shop in charity shops. People in these age groups think more about being happy and content than about consuming.

Discussions suggest that some people are even proud of shopping at the charity shops (we note this as important information given the stigma

¹¹⁰ [Vanapalli et al., “Challenges and Strategies.”](#)

and shame reported, as we explain below). They are proud because it is a way of showing their passion towards the environment. There is not only a class difference but also an age difference in the ways in which people change their behaviours and their attitudes towards circular economy. Some middle-class people thought that the look of handmade items was fashionable. For some individuals, going to charity shops and food banks and shopping online for second-hand goods is a part of their identity.

“We see that globally young people are aware of environmental issues, and you’re definitely, through working with schools and young people, certainly seeing that shift to more sustainable shopping. You know, like, more, more young people repairing clothes, making clothes, shopping online in places like Vinted or charity shopping is much more cool now, you know, and that type of thing, or having, you know, getting your fast flowing wardrobe through buying your clothes from the charity shop and then taking your clothes back to the supermarket, I mean the charity shop.” (Expert 4)

But the Discussions suggest that many changes may be temporary, and they suggest this with the idea of coming back to normal – and we note that the literature review is clear that the normal is a linear, fossil-based economy.¹¹¹ Discussions suggest that when the pandemic hit, people started to shop locally and adopt more sustainable lifestyles, but as people are getting back to normal they are going back to big supermarkets.

Interestingly, the Discussions point to the same dynamics happening with regard to the cost of living crisis. People are adopting new behaviours, for example shopping in charity shops, saving energy, ride sharing, using items for longer, repairing, making their own items, using food banks and community cafes and shopping for second-hand items online. However, there is a perception that people will go back to their old habits when they have money.

Furthermore – and this is something that the reviewed literature is unclear about – there is the perception that the pandemic increased consumerism and that the new normal is worse when contrasted to the period before the pandemic.

“The pandemic completely changed that aspect of it [...] Innovation is a great thing and

¹¹¹ [Burke, “Post-Growth Policies.”](#)

innovation can help smooth a lot of the wrinkles in society, but what you have as well is innovation creates issues that are really pertinent to the circular economy issue, and one of them is convenience. Everything became super-convenient during the lockdown and the pandemic itself, and consumption became even more convenient during that period. And it seemed to be that consumption and disposal just became the two massive monsters in the room that nobody really spoke about.” (Expert 2)

There is also the aspect of what we can call the “local normal”. Participants commented that people in Scotland do not have a cultural habit to take the leftover food home, but in other places, such as the United States, it is the normal thing to do.

Discussions are also consistent with the literature in identifying hidden negatives¹¹² – but not the same negatives. For example, the circular economy is perceived to promote economic growth and create green jobs, but there are concerns about the nature of those jobs, which are

perceived to be low-skilled and low-paying jobs because they revolve around waste collection and distribution.

“My big problem with the circular economy and sustainability is they talk constantly about green jobs, green skills, high-paid jobs, highly skilled operatives, et cetera. My fear is the vast majority of jobs will be provided will be low-skilled and low-paid jobs and it will be based around collection, and it’ll be based around sorting and distribution. It won’t be based on aspects that will require skilled and highly educated people. And I think that’s a real concern for me.” (Expert 2)

Finally, there is the perception that the COVID-19 pandemic shed light on the vulnerabilities of global supply and on the need for resilient self-sustaining economies. This is consistent with the literature review.¹¹³ However, in the Discussions this is clearly asserted as a positive that hides a negative: the return to normal.

“But in the same way COVID also raised awareness of supply chains and things like that. But

¹¹² Sharma et al., “Circular Economy Approach.”

¹¹³ Ibn-Mohammed et al., “A Critical Analysis”; Jensen and Orfila, “Mapping the Production”; Lever and Sonnino, “Food System Transformation”; Sharma et al., “Circular Economy Approach.”

people aren't provided with solutions. I mean, they're told, 'Well, just lower their thermostat.' It's kind of – you know, they're given quite condescending messages. So we're kind of just waiting to go through it and then the return to normal. See, we all, I feel consumers in general feel entitled to a certain comfort level which the cost of living took away, just like COVID did as well. And now we're all waiting to just sort of revert back to normal." (Focus Group Participant)

5.2. Perceptions of Justice in Transitions in Times of Crisis

5.2.1 Distributive justice

Food insecurity and intersectional injustices

Discussions are consistent with the literature with regard to food security, notably access to healthy meals.¹¹⁴ Some people under the poverty line do not have facilities or cannot pay to turn on the oven to prepare healthy meals, so they go for ready-made food, which is often less healthy. The perception is that the cost of living crisis aggravated food insecurity for

those under the poverty line. But one participant who used to love baking as a stress relief has not turned on her oven, due to the increased energy bills.

Discussions also point to the relationship between food insecurity and energy poverty and health issues. With the cost of living crisis, people experiencing poverty cannot afford to heat their homes. More people have been buying blankets to keep themselves warm during the winter, as they cannot afford to heat their houses. A participant mentioned that the pandemic worsened the situation for some people and made it even more difficult for them to make choices to be green. The mental health issues caused by the pandemic aggravated this situation, as people who used to recycle do not do it any longer. Importantly, discussions suggest that the cost of living crisis also caused a disempowerment of individuals, with people reportedly becoming more passive towards the climate emergency as they struggled to survive.

"Because before the pandemic I was, I was pretty green – bought, like, refillable laundry stuff, all that kind of thing. Shopped in zero waste places. Like you said, tried to buy fruit and veg and stuff more

¹¹⁴ [Berglund et al., "Just Transition"; Abram et al., "Just Transition."](#)

sustainably. I was pretty green. I rode my bike to work, etc. Then I fell ill. The pandemic. And my mental health went down the pan. And now I can't do any of that, I just have to kind of get by on what I can. So I'm not sure if that means my impact has gone up or down as a consequence, but [...] it feels like it, that this has kind of been rammed down my throat a little bit. And there's not a huge amount that I can do about it." (Focus Group Participant)

Sustainability as a luxury some cannot afford

According to some Participants, people in deprived areas are unable to make sustainable choices, and are blamed for not making them.

"Yeah, I guess it's almost a luxury to be able to think about things in a sustainable way, isn't it? This isn't so much a circular economy example but if you think about electric cars, maybe, so there's less tax for electric cars to incentivise that, but that ends up being a regressive policy because electric cars in themselves are so expensive. Cars are so expensive that only the very richest people can afford to make that choice anyway. So yeah, I think there is an openness for people of

higher incomes, still, to think about more sustainable choices. And that's brilliant and of course that needs to be encouraged, but I think there's also this tendency to blame individuals for their consumption. And that is a message that needs to be sent to people who are at the higher end of the scale, because they are doing most of the consuming, but it's not fair to put that onto people who are struggling to buy basic necessities." (Expert 1)

For the low-income or poor households, the cost of living crisis exacerbates this situation, leaving them with limited capability to think about or even engage with the circular economy or the energy transition.

"I think it is just harder for people to care when they are facing multiple hardships and are probably at their limits. It's a lot easier for certain people that maybe have a little bit more time to kind of be very careful about how you recycle and do it properly. I'm not sure that that is the same for people that are just, you know, extremely stressed, kind of choosing whether to heat their homes or feed their families, it becomes like, you know, you're probably

just at your limits of what you can actually do. So I do imagine that it has, like, multiple crises as well, happening all at once, is probably changing people's attitudes. And so maybe it's about making it easier for people. Making it more accessible." (Expert 3)

Unfair levels of responsibility imposed on individuals

Discussions show concern about the unfairness of communication and policies that overemphasise the responsibility of the individual.

"Way too much is pushed onto the individual, and then what we have then is young people who are constantly stressed because they think they are not doing enough, and that's because we have to then separate out what is actually within your control, what do you have influence over, and what do you have no control or influence over, and actually the infrastructure is the bit that we have no control or influence over, we are subject to [it], and therefore although we can do everything we can within our limited ability, it is limited by the infrastructures around us, so I think if we can do infrastructure change it releases people to actually make those choices

which now, at the moment, they are not able to." (Expert 7)

5.2.2 Recognition justice

Discussions addressed aspects of recognition justice in detail, offering a lot of insights that, although consistent with the literature, do not emerge so clearly in the literature. Note that many of the aspects below could be comfortably placed under distributive justice, but we decided to place them here to highlight the lack of recognition of certain groups.

Lack of recognition of differences

Participants suggest that energy companies are not adopting appropriate responses to address social vulnerabilities, with people indicating that these companies may be making profit out of the crisis (a point to which we come back below). A Participant highlighted that although they are only using very little electricity and gas at home, which is less than the standard price for bills, they still must pay. So, according to the same Participant, even if they want to reduce energy use in order to save the money for food, the energy companies are charging over their actual usage. Top-up meters have a higher tariff, so, reports the Participant, they do not want to convert to a top-up meter. With the power that energy companies have, they are making decisions for the consumer about the energy cap, even though it is obviously higher than

the actual use of energy in previous years. We note how this “decision for the consumer” might also lead to feelings of disempowerment as reported above.

The Discussions suggest that programmes to help people get through the energy crisis – including from the councils, Zero Waste Scotland and the Scottish Government – are not practical for people who were struggling even before the crisis.

“Even if we visited people and gave them highly effective and highly efficient energy advice and capital improvements, LED bulbs, draftproofing letter[box] brushes, their income is still way, way, way below what’s necessary to even keep their houses reasonably warm or tolerable standards.” (Expert 6)

Lack of recognition of the specific groups and children

An interviewee who works with deprived communities – including people who live in council housing, former prison inmates, and people who work in the care sector – mentioned that sustainability is not a priority for the people or children with whom he works. However, his children are going to school with privileged children, and they are more focused

and passionate about the climate emergency, sustainability and circular economies.

“You have to install some sort of passion or energy for the change, but if you are living on the breadline and your kids are getting laughed out of school because they have not got the right trainers or [they have] the wrong blazer, you might not have the right headspace to engage in the concept of a circular economy, you might be a passive activist if you know what I mean, you would love to but there’s not enough time/money/energy.” (Expert 6)

With the pandemic and the cost of living crisis, even some of the people who were passionate about recycling do not have the time or the headspace to think about these things. A Participant mentioned how people from deprived backgrounds hesitate to take a risk and change their behaviour towards new trends.

Lack of context-based approaches

The Discussions throw new light on one aspect discussed in the literature – that education and training programmes tend to assume that people will react in the same manner.¹¹⁵ Discussions

¹¹⁵ [Rask, “An Intersectional Reading”; Grodzińska-Jurczak et al., “Contradictory or Complementary.”](#)

clearly suggest that the same occurs with broader communication strategies.

“And therefore they don’t, they can’t relate to it, or it’s, you know, it’s so far removed. And it’s just this understanding, ‘Oh, everyone knows what sustainability is. Everyone knows what this or that means.’ And we don’t. And it’s embarrassing to maybe admit that you don’t. And so just having this, break it right down, make everything so simple. So, things like graphics or really simple explaining.” (Focus Group Participant)

Discussions emphasised that inadequate communication could lead to a lack of understanding or engagement, and could also lead to confusion among communities.

“I think just now there’s two or three strategies and policies coming through in the council that the ordinary person, if they went to read that document, they would feel disassociated from it. To them it’s going to affect their lives intrinsically, but they don’t know what it means, they don’t know how they can interact with it. You know, especially around things like maybe the heating, energy strategy, there’s no way that

they will be able to understand how that interacts with them in their situation and the way in which they can afford to pay their energy bills et cetera, because maybe the way in which it’s been distilled down from [the] Scottish Government.” (Expert 2)

Discussions show that community organisations are very aware of this and are actively focused on the economic benefits alongside social justice for building resilience and a sense of solidarity around reuse projects, and have conversations around fairness and proportionality with groups in communities that may be disproportionately burdened with managing deprivation or actioning environmental change.

“People who have the least being asked to do the least, so that there are small steps for things that they can do that are not going to have a particularly strong negative effect or impact on them. There are much bigger things that wealthier people can do that are still not going to have a huge impact, but it’s going to have a big impact on the planet and our consumption. Processes and ways of achieving a goal, I think, need to be part of the message.”

(Expert Focus Group Participant)

Further, Discussions suggest that language barriers and lack of information can hinder people's ability to comprehend and engage with circular economy initiatives, such as the Deposit Return Scheme in Scotland. It was noted that there is a need to engage diverse communities around Scotland who may feel left out because of language barriers or other factors which may hinder their engagement with the transitions.

"I think a lot of people from other countries have experience, now, of deposit return systems, but this particular charity was seeing a lot of concern about what was happening in Scotland because people didn't understand, because they didn't have the information about what was happening in Scotland, and that was partly due to a language barrier." (Expert 1)

Stigma and shame are not topics that received enough attention in the reviewed literature. Given the importance that the topic has in the Discussions, we bring some insights from the broader literature and our own research. Stigma can reinforce symbolic depreciation¹¹⁶ and social abjection and coercion¹¹⁷ against people who are usually marginalised in society. Stigma is even more perverse because, emerging at the subjective level, it may be expressed in different ways, and therefore may not be always captured by those delivering services or designing policies. It may prevent and repel people from accessing services and policies that are crucial to their lives.¹¹⁸ As such, both service providers and policymakers must better understand the effects of stigma on how people relate to services and policies

Stigma and shame

¹¹⁶ Loïc Wacquant, "Crafting the Neoliberal State: Workfare, Prisonfare, and Social Insecurity," *Sociological Forum* 25, no. 2 (2010): 197–220, <https://doi.org/10.1111/j.1573-7861.2010.01173.x>.

¹¹⁷ Imogen Tyler, *Revolted Subjects: Social Abjection and Resistance in Neoliberal Britain* (London: Zed Books Ltd, 2013); Imogen Tyler, *Stigma: The Machinery of Inequality* (London: Zed Books Ltd, 2020).

¹¹⁸ Fernando Lannes Fernandes, "The repellent role of institutions," *Rev Rene* 20 (February 26, 2019): e40661, <https://doi.org/10.15253/2175-6783.20192040661>.

identified as stigmatising by those suffering from stigmatisation.¹¹⁹

Discussions highlight how Participants feel embarrassed to use food banks and second-hand shops. Also, Discussions suggest that people can be self-judgemental and feel bad about the change in their circumstances, from enjoying a better position before the cost of living crisis to struggling now. One Participant mentioned how it is more convenient when second-hand shopping is online. It makes it more accessible, and you can stay anonymous.

“And I think, in my community, the people I work with see that as a sign that you’re struggling sometimes. That you’re repairing things. And actually you want things that look fresh and new and sparkling and clean, because that is something that you can kind of showcase that you’ve got money and you’re doing okay, if you know what I mean. Rather than that feeling of that you’re repurposing things, maybe a sign of poverty sometimes to some people, and that can

sometimes be an issue.” (Focus Group Participant)

An interviewee who has long-standing experience of work with poverty in Scotland also highlighted that people living in poverty are usually more resistant to the idea of second-hand because there is an element of pride and self-esteem in being able to afford brand new items. This suggests a need for change in the way second-hand items are culturally seen from a social class perspective and a need to develop more tailored approaches to encourage cultural shift among socioeconomic groups who could benefit most from circular economy practices.

5.2.3 Procedural justice

Discussions are consistent with the literature on the importance of inclusion and transparency.¹²⁰

Participants described just transition as potentially alleviating historical and existing injustices if community-based consultation and transparent leadership are actively developed in collaboration with national agendas and programmes. There is a contrast among Participants: some with expertise or leadership roles report encountering or including just transition

¹¹⁹ [Fernando Lannes Fernandes and Andrea Rodriguez, “The “Lost Generation” and the Challenges in Working with Marginalised Groups. Learnt Lessons from Brazilian Favelas,” *Radical Community Work Journal* 1, no. 1 \(2015\).](#)

¹²⁰ [Vătămănescu et al., “Before and After.”](#)

principles in processes and advocating them on behalf of community members; others experiencing increasing poverty and marginalisation were not as familiar with just transition principles. The latter reportedly identify socioeconomic structural injustices across existing energy support programmes or climate justice projects and feel that they had not been directly included in any consultation processes.

Moreover, Discussions show that variations in sustainability efforts across different local authorities in Scotland hamper efforts towards addressing and implementing the transitions. Disconnects and lack of cooperation between local and national governments have the potential to hamper transition efforts within local government jurisdiction.

“Every local authority seems to do things a little bit differently as well.” (Focus Group Participant)

“Yeah, they see everything happening, you know, 360, and they receive a lot of complaints every day. They’re just not empowered, not able to do anything about it.” (Focus Group Participant)

Lack of inclusion

Discussions highlight the importance of engagement and dialogue between governments and the public. It was Sustainable Citizen Decision-Making

noted that meaningful and inclusive conversations with different communities are vital in encouraging their participation in the energy transition and the circular economy and also in creating more impactful changes.

“So it’s called a Just Transition Plan, but I don’t know if any of you have had a look at the document, it’s a very long document, but there’s nothing substantial in there about a just transition, despite the fact that there have been numerous consultations with different stakeholder groups, and I think this is an example of how the Scottish Government is not listening enough to people. So one thing I would like to see for the future is some real engagement with people, and that is one of the first steps that I think the Scottish Government needs to make if we’re going to create the sustainable future that we all need.” (Expert 1)

Lack of consultation with low-income communities on decisions that directly impact their livelihoods, such as the installation of incinerators, hinders their participation and engagement in the circular economy. Their exclusion from decision-making leaves such communities feeling that their voices and concerns are not being heard and

addressed by the government. Lack of agency and control, resulting from insufficient government action and effort toward the energy transition and the circular economy, leaves individuals feeling that their actions cannot effect significant change. Governments and large companies have a responsibility to the environment, and their commitment has the potential to foster a sense of agency among individuals.

“Yeah, there’s no agency. And yet there’s adverts like that that tell me it’s my fault for not fixing my jeans [...] It’s a little bit patronising.” (Focus Group Participant)

Participants consistently identified (i) ongoing and persistent injustices from local to global supply chains and (ii) how just transition could be embedded into systems and processes at a community level and global level to improve fairness as being among the biggest challenges to implementing the just transition to a circular economy.

“Yeah, so a just transition, for me, means fair and inclusive [...] So nothing’s kind of imposed and parachuted on

people.” (Focus Group Participant)

Echo-chambers

Consistently with the literature, Discussions show concern with the fact that debate surrounding the transitions at government and local government levels is always limited to certain voices, thus leading to the exclusion of many perspectives and experiences.¹²¹ Recent academic discussions on the shortcoming of democratic procedures to ensure inclusions of different voices also reinforce the point.¹²² Participants emphasised the need for more inclusive and diverse discussions that incorporate different voices, perspectives and experiences; such discussions will be essential in providing a more comprehensive understanding of the issues surrounding the energy transition and the circular economy, and would encourage broader participation among consumers/individuals.

“It’s always the same people who turn up for the same discussions, we don’t really seem to get an impact into, like, a wider audience. It’s the same voices, the same thinking, and I

¹²¹ [Lever and Sonnino, “Food System Transformation”; Grodzińska-Jurczak et al., “Contradictory or Complementary.”](#)

¹²² [Sufyan Droubi, Raphael J. Heffron and Darren McCauley, “A Critical Review of Energy Democracy: A Failure to Deliver Justice?”, *Energy Research and Social Science* 86 \(2022\), <https://doi.org/10.1016/j.erss.2021.102444>.](#)

think it needs to break through that, it needs to become much more mainstream than normalised, and I think that's one of the kind of obstacles we need to be looking at, be aware of. So I think, at the moment, that's the situation. I think it's still struggling to find its position within the overall narrative and kind of sustainability conversations within the city." (Expert 2)

Neither the literature review nor the empirical research provides much information about how to tackle this issue. However, the broader literature on just transition may offer some help to address the problem. Droubi et al when discussing the concept of restorative justice¹²³ describe the "conundrum of democratic governance", that is, the situation in which more participation leads to more inequality. We believe that "echo chambers" could be described also in terms of this conundrum, whereby marginalised individuals are present in debates but are unable to have their voices heard. Some of the actions to address this situation include the redefinition of the role of

professionals and those who act as chairs or facilitators in public debates, the revamping of the process of identification of and engagement with stakeholders and broadening of the purposes and scope of training in the following ways. In public debates, professionals and those acting as chairs or facilitators should not exercise a domineering position, but should act more as resource-persons, who answer when asked. Identification of and engagement with stakeholders needs to ensure participation also by screening out individuals with attitudes that can jeopardize diverse and inclusive forms of participation on public debate and decision-making. Training should also aim at preparing community members to participate in public debates and generate engagement in the long term. As demonstrated by our research with marginalised groups, the engagement of diverse voices must acknowledge (and challenge) the existing barriers for participation such as hegemonic language and cultural codes present in spaces that should embrace the encounter of different voices, cultures, and world views.¹²⁴

¹²³ [Droubi, Heffron and McCauley.](#)

¹²⁴ [Fernando Lannes Fernandes. "The repellent role of institutions." Rev Rene 20 \(February 26, 2019\); Fernando Lannes Fernandes and Andrea Rodriguez. "The "Lost Generation" and the Challenges in Working with Marginalised Groups. Learnt Lessons from Brazilian Favelas." Radical Community Work Journal 1, no. 1 \(2015\).](#)

Poor communication and lack of transparency

Understanding of the term 'circular economy' was very varied across the participants, from experts working within the field able to define the term and community members giving examples of running repair and reuse projects to others never having come across the term. Circular economy was primarily defined as a system for products and services that reduces environmental and climate impacts while offering a benefit to the community. But it was evident that the term was not consistently definable, and it had a range of interpretations.

"Some people have described it to me in terms of products and materials being made into something and then that thing being used, instead of it ending up in landfill. And it gets recycled or reused or something like that. Other people view it more in terms of like imports and exports, I guess. Moving things within the UK rather than shipping things around all over the place. And then some people seem to think it's more about the kind of keeping things local, I guess. Trying to be the neighbourhood's stuff." (Focus Group Participant)

Alongside the terminology, concerns were also raised about misconceptions

– associated predominantly with recycling and waste – and about what a circular economy looked like in practice, which was highlighted by participants not identifying second-hand shops or repair services as elements of existing and emerging infrastructure. The term was also identified as "jargon" or another "label" and as something that was already appropriated into greenwashing by larger corporations that have a negative reputation for environmental action and climate justice.

Participants also pointed out the lack of transparency about the costs and benefits of some of the renewable projects, such as solar panels, which can have an impact on a consumer's perception of the need to transition to more sustainable alternatives, as they may be unable to see the benefit or impact of such initiatives. An important point was made with regard to access to government subsidies/ incentives when purchasing products such as hybrid vehicles, which are very costly for an average individual – there was a potential barrier for those who are unable to afford such products.

"I know somebody who lives out, like out in the country, and he's got a little wind turbine, he's got solar panels, he's got a little hydro turbine as well, so. And he gets, I think, 20% off his

energy bills. Which is not a lot, because he's invested thousands and thousands and thousands into solar panels and everything. And obviously that might – it's more environmentally friendly, but it's definitely not financially benefiting him [...] And he's a bit like, 'I'm never going to see the benefits of this.' So, yeah, it's not – he did it all, and then he regrets it." (Focus Group Participant)

Another challenge noted was the potential for resistance in the transition to low-carbon futures from certain industries, such as the agriculture sector, as the transition might have an impact on their farming practices. Engagement and dialogue were identified as vital factors in overcoming this challenge and also in ensuring an inclusive and just transition.

"I've mentioned agriculture as one. Now, they as a sector are going to be quite heavily resistant to the transition. We're seeing that on the ground already and you can understand why, because a lot of what this means is, you know, turning over what would be viewed as good pasture land or agricultural land to carbon sequestration projects, and an impact on, you know,

immediate viability of farms, and they're also very much feeling a little bit beaten up by the whole agenda because they're being demonised in terms of practices, overall contribution to net zero, and they play an essential role in terms of the viability of our economy and our communities. So there's a lot of resistance there. It's becoming perhaps easier to engage and to work with them [...] and linking the history of agriculture to where we are now and telling that story through the creative arts to help engagement, you know, not just within the agricultural sector but through the community more generally, so that you can have a more positive and engaged dialogue with them." (Expert 5)

Participants emphasised the importance of proper communication and education to break down complex concepts into simple and relatable terms, enhancing individuals' understanding and encouraging their participation in the circular economy and in the energy transition.

"I think the Just Transition is even more difficult for people to wrap their head around because it is so broad. So that's something that we've been

looking at as a recommendation in our report, is how do you translate that to issues that people are facing. And, you know, how can we describe the transition as something that addresses the cost of living crisis or that seeks to reduce fuel poverty. And address the really high energy bills that people are facing. And issues that people also care about. So I think people do care about, for example, litter and waste in their local communities. So, again, trying to kind of build that narrative about what it looks like to people in practice.” (Expert 3)

Another observed barrier is the lack of awareness and information about specific circular economy initiatives within communities, such as repair or recycling services. This lack of knowledge hinders people’s participation and engagement with these initiatives that are set up in many communities.

“When they asked people, ‘Do you know any reuse or repair services in your area?’ most people said no. I think, I can’t remember off the top of my head, but I think it was something like 60 or 70 per cent of people said, ‘No, I don’t know of any services like that,

that are available to me.’ And then of course the next question was, ‘Well, if you did know about them, if they were available would you use them?’ Yes, of course they would. So, you know, information definitely plays a part, yeah, obviously that’s just what people are saying, I guess. Cost also seems to be a big factor as well for reuse services.” (Focus Group Participant)

5.3. Perceptions About the Crises and Transitions and the Lived Space

Discussions brought interesting insights on the importance of space. At the macro level, Discussions suggest concern with the scale of change necessary to deliver just transition, with the complexity and interdependence of supply chains from local to global, and Discussions highlight the international implications and the challenges beginning from local and expanding out into global.

“So, you know, looking at trying to develop our local supply chains. And work with procurement. And try and change the ways that we procure services and goods.

And then, hopefully, that then has a longer and more broader impact in terms of our activities in other places. And the emissions that we're effectively exporting to other areas." (Expert 3)

Also at the macro level, Discussions show concern about the relationship between local and national government and between them and individuals and communities. Participants relate mistrust and a sense of not being listened to or understood. Participants called attention to the need for language and communications to come through trusted relationship building at a grass roots level.

"I think the action and the motivation and the inspiration, if you like, for generating trust and therefore activity towards just transition and changing our behaviour, as far as climate change is concerned, really needs to be a local thing. I think it comes down to relationships between people and how they work together. And also how they moderate each other and bring in different ideas and help to dispel the fake news or to inform more clearly. I think we need communities to work

together in order to generate that trust." (Expert Focus Group Participant)

Interviews show that the understanding and knowledge of just transition is broad, applied in localised place-based contexts, and can be scaled to the global supply chains. Discussions also shed light at the micro level, suggesting a lack of acknowledgement of the individual's lived experiences, for example in areas of high deprivation, and identifying multiple failings of current support programmes with regard to the transition, food insecurity, public services and transport or reassurances of future economic equity.

5.3.1 Location and access to infrastructures

Consistently with the literature,¹²⁵ the location of certain infrastructures raised serious concerns and clearly suggests interlinkages with distributive and recognition justice:

"Another group of people I think would be interesting to explore are those who live near incinerators. So, we know that incinerators are more likely to be situated in areas which are low-income, and there was a recent review of incineration in Scotland, an independent

¹²⁵ Sharma et al., "Circular Economy Approach."

review, which looked at this. They didn't have time to go into the detail of where these incinerators are situated, but there are some interesting recent examples. So, the latest incinerator to be switched on in Scotland is [NAME], which is a really poor area. The incinerator is less than five kilometres from the nearest primary school and there are health concerns with these incinerators, and there are concerns from the local community." (Expert 1)

Discussions show concern with lack of access to services such as repair or recycling services within different areas; this was considered to be influencing individuals' behaviours and attitudes. Accessible services that were conveniently located were emphasised as being crucial in encouraging participation in circular economy initiatives.

"From my point of view it would be really nice to have things that were more available or widely known. Places that you could use to get repairs done, or to have that kind of community type hub where you can kind of, yeah, pop along, repair uniforms, get kids' stuff sorted. Repair bike." (Focus Group Participant)

5.3.2 Circular economy principles and local community

Discussions suggest that circular economy principles are important for building resilience across and between communities, where social justice and environmental agendas can converge meaningfully for communities to collaborate and share resources more equitably. Participants suggest that circular economy projects or businesses need to be place-responsive and contextualised with just transition.

"I think also the principles behind circular economy can really help create a sense of community and this concept of living and functioning and thriving together, and for me there's nothing more important that I need to do in my work in climate change adaptation or building resilience, nothing more than actually connecting people, and we can see that in any crisis that's faced us, the communities that are connected and people have got relationships and rapport with each other respond the best or respond in the most kind of collective kind of supportive way [...] it actually brings people together because it's not something you can do on your own, and that obviously is quite big in terms of tackling kind of

these wider social issues as well.” (Expert 4)

5.4. Insights Relevant For Decision-Making

5.4.1 Addressing stigma and shame

To address the stigma and shame behind accessing these support systems, Participants suggested rebranding of facilities. A Participant who organises a community fridge noted that they are emphasising the message that the community fridge is not only addressing the food security but also a solution for the food waste. The fridge is not only for those who cannot afford the food but for anyone who cares to reduce the carbon footprint. Highlighting more on what you get from these initiatives than on who is getting the support also reframes the message and attracts a more diverse group of beneficiaries. Introducing food larders and shopping cards are other policies to address the stigma behind this. Community cafes and other spaces could also be places for socialising, interacting with each other, learning new skills and building communities.

“We’re doing a lot around food waste and food redistribution, but with no stigmas attached because it’s about the environmental impact. I think

there is a lot to say around this kind of work, having a lot less stigma and what feelings that can bring for people who really need those things. If they need clothes, if they need food; the fact that we always have this environmental focus on our work means people don’t feel bad about it, and I think there is something really powerful there that seems to work and chime with a lot of people.” (Expert Focus Group Participant)

A Participant said that one needs to feel secure about oneself – in her case, about her own wealth – in order to not feel ashamed by going to a charity shop or a community fridge. According to Participants, use of these facilities should be described as a way of helping the circular economy transition. When this becomes socially accepted, it will be normal for anyone to shop second-hand and use food banks, irrespective of socioeconomic demographics. This would mitigate the stigma associated with using these facilities.

“So I do think the stigma around it is definitely changing. And it is – like, lots of people do, like [...] thrift for things and stuff. So they’ll go into charity shops, and then they’ll put it on Depop or Vintage or whatever, so that people who don’t necessarily

live in that area can buy those things online. So I think there is definitely a change in stigma.”
(Focus Group Participant)

5.4.2 Building trust

As discussed above, lack of trust in governments undermines circular economy transition project, as some of the government initiatives towards the transitions can be very demotivating and undermine participation. Building trust and engaging with vulnerable communities were seen as vital in developing solutions that are tailored towards their specific needs.

“I think trust in government is not particularly high just now, is it? It hasn’t been high for a while, I don’t know, it is particularly bad right now. A lot of the people that we interact with especially distrust government, local and national; these are some of the people going through some of the worst things, so you understand where that distrust comes from.”
(Expert Focus Group Participant)

5.4.3 Building consistent policies and leadership

Strong leadership was highlighted as one of the recommendations with the potential to promote changes in behaviour favourable to the transitions.

“We function as a society when our leadership – which, I’m going to be honest, our leadership at the moment, it’s a little bit of a mess – a mild understatement – but we need a leadership that somehow shows by the way, shows by what they do as a leadership that this is something we need to all be able to be part of, and that’s why I think taking those larger infrastructure movements changes the way then that filters the way we as a society begin to think about things and respond to things.” (Expert 7)

Participants suggest that commitment and effort by the government is crucial in driving the transitions and that lack of genuine commitment and engagement can create barriers that hinder consumers from adopting positive behaviours and attitudes towards the transitions.

“We do need to do that, governments do need to be more engaged with this stuff. And not making adverts about jeans. Not introducing low emission schemes that aren’t going to work. Not launching schemes that exist for six months and then they fall on their arse [...] Like, they need to be committed to it. They need to do things like decide, ‘Hey, we’re

actually going to recycle our plastic and not just burn it for electricity and call it green' [...] And at the end of the day, the people making those decisions can talk to us all they like, but we also need to talk to each other." (Focus Group Participant)

5.4.4 Trustworthy and actionable knowledge

Participants stated that knowledge and understanding about the transitions in both the public and private sectors are extremely important but insufficient, due to lack of access to proper training and education. This is a point that is reinforced in the reviewed literature and in recent literature on just transition and education.¹²⁶ Participants suggested that highly technical knowledge may not necessarily be required; instead, what is required is knowledge in practice. Participants mentioned the need for case studies with best-practice examples.

"I would extrapolate that out and say actually the level of understanding across the whole public sector is fairly limited and there's a whole range of training that will be needed to

help us be the leaders in that space, and that will then feed through to communities as well, but it is a challenge, you know, and I don't think we can ever expect everyone to be, you know, climate experts or circular economy experts, but if they're going to engage with it they need a basic level of literacy, and it's just not there at the minute." (Expert 5)

For businesses, the biggest challenge raised was the fact that they operate within the dynamics of a linear economy and therefore that they do not possess the skills to transition to a circular economy without risking the viability of their businesses. This seems to be consistent with the literature¹²⁷ – and the latter also highlights the importance of investment into businesses.

"We're in a linear economy, it's a big transition that's required in terms of upskilling and behaviour change and education and I think, you know, you could say the same more generally about, about the whole transition to net zero. The level of climate literacy, circular economy literacy, is very, very

¹²⁶ Sufyan Droubi et al., "Transforming Education for the Just Transition," *Energy Research and Social Science* 100 (2023), <https://doi.org/10.1016/j.erss.2023.103090>.

¹²⁷ Jensen and Orfila, "Mapping the Production."

low, and that, I think, from my perspective needs to be addressed at social and business level if we're really going to benefit from, from the transition over the next 10-15 years." (Expert 5)

Participants from across the interviews and focus groups also mentioned the importance of showcasing action and sharing success stories for encouraging positive behaviours or changing attitudes towards circular economy

and just transition. This was especially needed to increase relatability and relevance to people's everyday lives, providing a narrative to connect with and celebrate. An important insight from the Discussions is the effect that the sharing of stories and experiences has on those who are sharing. Some Participants, when sharing these stories and celebrating successes of projects, additionally felt a stronger sense of agency to effect further change in their own lives and communities.

6. Recommendations

The research addressed how crises, notably the cost of living crisis, affect individual and collective attitude and behaviour with regard to transitions in urban areas. This was done through a review of the relevant literature (chapter 2) and through interviews with experts in Scotland and focus group discussions in Dundee and Stirling (chapter 4). There is consistency between the three lines of investigation (chapter 5).

There is a general feeling that the transitions lost momentum at national and local levels due to the social and economic impacts of recent crises on individuals, communities and government. Some Participants noted that crises seemed endless and, in conjunction with one another, seemed to increase injustices. The literature and the Discussions all point to the temporary character of some positives brought by the crises. However, the Discussions clearly suggest that some positive changes in behaviour were forced on individuals facing deprivation and marginalisation. There is frustration at the suspension of transition programmes and at the perceived loss of opportunity by governments to design and implement green recovery policies in response to the crises. There is overall discontent with the lack of recognition and

inclusion of diverse voices in policymaking processes. There is also a significant degree of mistrust towards the government.

Promising practices and experiences have been observed at community and grass roots levels. Notably in this respect is the strategic focus in communication to frame recycling and reuse as lifestyles that are important for the climate and planet, rather than as actions that emerge forcibly from circumstances. The literature and Discussions all point to the need for holistic and encompassing responses to crises. The literature and the interviews are consistent in indicating that transition strategies are important for building resilience against future crises.

Drawing on the above, we put forward six recommendations that we believe will support the transition in Scotland.

I. Competent planning for dealing with crises

Both the literature and the empirical research show how responses to the pandemic and other crises have been insufficient, how they distracted individuals, communities and government away from the transitions to focus on more immediate needs. At the same time, there is evidence that

the transition may help address some of the effects of the crises. To avoid the vicious cycle of crises jeopardising the transitions, which in turn accentuate the effects of future crises, government, communities and civil society organisations should expect crises to emerge at unexpected moments. The world is living through a succession of crises from decades (9/11, the Global Financial Crisis, international and non-international conflicts, political crises such as Brexit, the COVID-19 pandemic, and the war in Ukraine). At the same time, the climate and environmental crises continue to develop and worsen. The future is likely to bring different crises, with different causes, and the worsening of the climate and environmental crisis. It is not appropriate to justify lack of preparedness for future crises on the impossibility to predict the type and beginning of the next crisis. Preparedness requires the inclusion of transition principles into the strategies adopted by government, communities and organisations. Individually, these actors should rethink their medium-term and long-term plans of action to prepare for the next crises that climate change and other events will trigger. It emerges clearly from the present study that collectively these actors need to improve and strengthen communication channels and dialogue based on inclusion, trust

and transparency. We address the crisis response and recovery policies below.

II. FOOD SECURITY IS PARAMOUNT IN PLANNING AND RESPONDING TO CRISES

One of the most serious aspects discussed in this study refers to food insecurity in urban areas. The gap between food production and consumption is significant, with urban areas too dependent on global food supply chains, which can be significantly disrupted by crises. Within cities, there are “food deserts”, the situation of which is aggravated by crises. To tackle these, there is a consistent message towards reducing the dependency on global food supply chains. This requires investing in local suppliers and ensuring that their products be accessible and affordable to all individuals and communities. An important suggestion is the combination of circular economy and energy transition strategies (sharing and reuse, renewables) with urban agriculture. This reinforces the need for holistic transition strategies that bring all these different aspects together, as further explored below.

III. PUBLIC DEBATE MUST ENABLE DIVERSITY

The literature review and the empirical research also show that people living in marginalised

communities are underrepresented in public assemblies and debates about the transition, and also in circular economy activities such as community gardens. When present, marginalised groups may not have a voice, in contrast with participants from higher-income backgrounds. This may create what has been defined as echo-chambers, that is, spaces where the same voices are always present and where they always prevail.

Assemblies and activities, which may be heavily reliant on volunteers or part-time staff (with volunteer time), may end up being dominated by those in higher-income brackets.

Strategies to ensure that these forums are inclusive and that participation is real may draw on certain strategies adopted elsewhere. For instance, restorative justice strategies and community participatory practices to ensure inclusion and real participation may be helpful in terms of redefining the role of those responsible to facilitate public debates to encourage the identification and engagement of diverse stakeholders, by overcoming barriers for participation. In addition, action should be taken to increase capacity and awareness of those taking part to embrace a genuine democratic decision-making process.

Iv. Responses to crises must acknowledge stigma and shame

The stigma and shame associated with the use of food banks, food larders, Sustainable Citizen Decision-Making

community fridges, second-hand shops and similar initiatives should not be underestimated, and should be further studied given the paucity of the literature on the topic. There is a negative dynamic that emerges from the study. Crises aggravate inequality against the same groups that suffer from historical and systemic injustices. These groups see themselves as being coerced into using services that are described as circular economy services, and by using these services they feel shame and experience stigma. Stigma and shame reinforce inequalities. There is a disconnection between the lived experience of these groups, who are forced to use these services, and the framing of these services as circular economy or sustainable services by policymakers and researchers. Researchers and policymakers must approach the subject from the perspective of those living the experience of resorting to these services. It is important to acknowledge that many community organisations and community groups are aware of this problem and are tackling it by emphasising that these services are important for the climate and the environment and should constitute part of a new lifestyle. Whether this will be enough to tackle shame and stigma that may arise in future crises needs to be the subject of specific studies.

V. Investment in formal and informal education

Crises accentuate some of the shortcomings of the current education environment. As the literature shows, education workers have been disproportionately affected by the COVID-19 pandemic and the ensuing cost of living crisis. Green recovery from crisis is affected by the lack of proper education and training – and by the loss of life skills. Child education has been particularly affected by the pandemic, further jeopardising the possibility of green recoveries.

Some circular economy initiatives offer a platform for learning life skills and for informal education exchanges more broadly. The potential that circular economy workshops and cafes, for example, offer informal education settings that can reach all generations should be better studied and understood. Investment into these initiatives should seek to enhance their potential to serve as informal education settings. This should be done in partnerships with education institutions, civil society organisations and communities. Given the importance of these activities and environments, and given that crises may impact on them, preparedness for future crises should include policies aimed at maintaining these activities running without interruption.

Beyond this, both the literature and the empirical research show that there is a clear need for formal and informal education to explain what the energy and circular economy transitions mean in practice, to break down complex concepts and build actionable knowledge. Examples include the use of case studies and examples from promising practices. Further, education needs to be context-based and problem-based and must build on the lived experiences of the individual and communities, by acknowledging their agency, practices, and strategies. Further, education needs to prepare individual and communities to face future crises.

V. Integrated, connected and holistic green policies in response to crises

There is agreement against the deployment of fragmented responses to crises and against policies that prioritise certain problems, such as health or finance, and ignore others such as sustainability. There is also significant agreement about the need to avoid responses that place too much emphasis on economic growth. All this is particularly important in a future in which most diverse crises may erupt in parallel with the worsening of the climate and environmental crisis. There seems to be significant agreement that policies adopted to recover or to respond to

crises should be integrated, connected and holistic. Further, there is emerging agreement that these policies must be “green” and promote a just transition. We draw on this to recommend green recovery policies in response to future crises as a way to also build preparedness and resilience towards the developing climate and environmental crises.

National and local recovery policies need to better integrate social justice, well-being, sustainability, and climate

action. There needs to be more dialogue and collaboration with local communities in the designing and implementation of recovery policies. It is also necessary to better understand the mechanisms and strategies to bring together policy and activism agendas that have been historically separated (social justice, climate justice, race and gender inequalities, etc.). This will have a crucial role in the design of more integrated agendas towards intersectoral and holistic approaches to just transitions.

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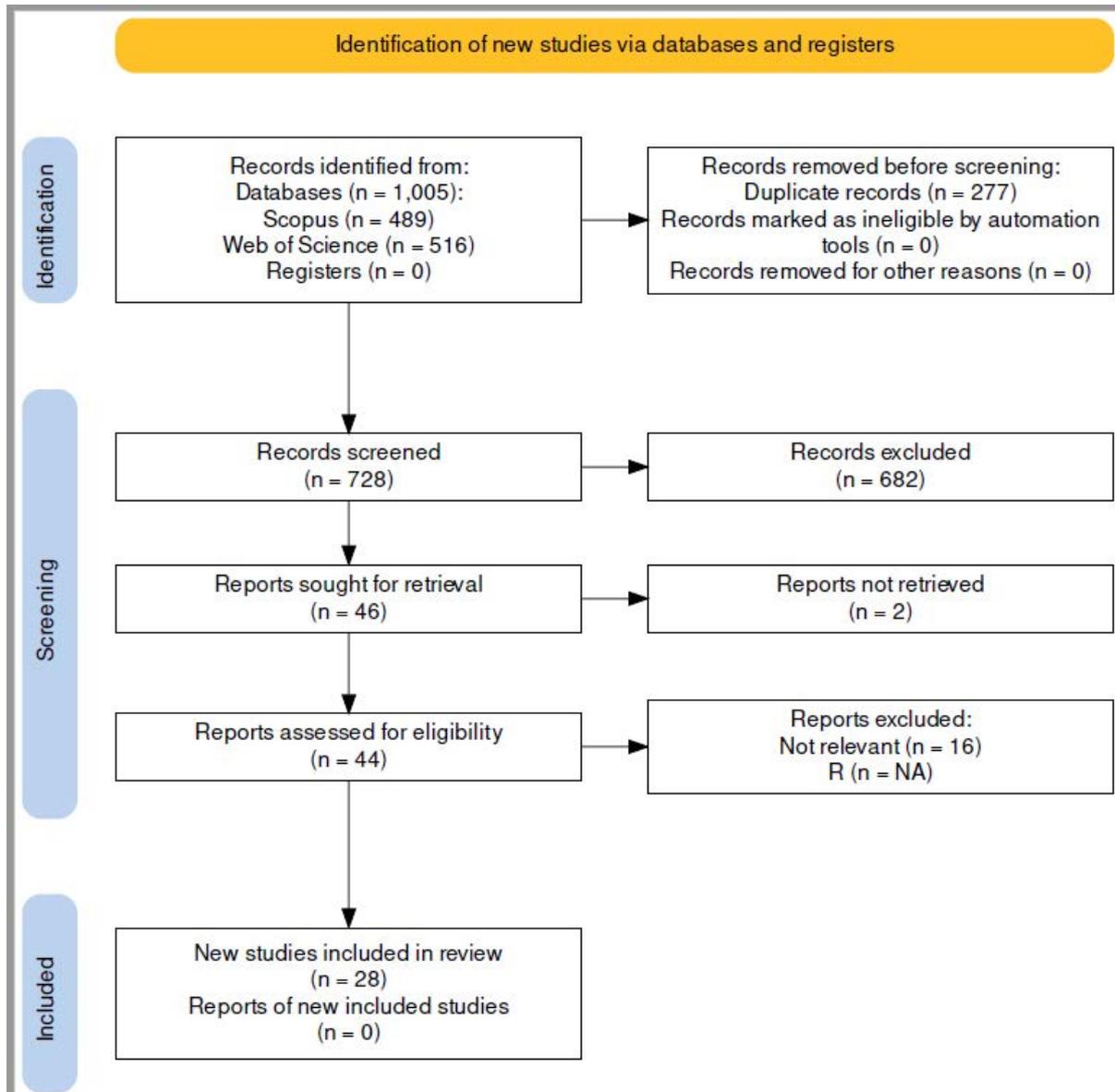
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8. Annexes

Annex 1: The PRISMA diagram



Haddaway, N. R., Page, M. J., Pritchard, C. C., & McGuinness, L. A. (2022). PRISMA2020: An R package and Shiny app for producing PRISMA 2020-compliant flow diagrams, with interactivity for optimised digital transparency and Open Synthesis Campbell Systematic Reviews, 18, e1230. <https://doi.org/10.1002/cl2.1230>

ANNEX 2: Expert profiles of interview and focus group participants

Interview	Area of expertise
Expert 1	Circular economy campaigner
Expert 2	Urban sustainability
Expert 3	Green economy
Expert 4	Climate and sustainability action with communities
Expert 5	Net zero transition with businesses
Expert 6	Individuals' rights
Expert 7	Poverty and fairness

Focus group	Area of expertise
Expert 8	Circular economy social enterprise
Expert 9	Local authority community planning and development
Expert 10	Learning for sustainability and education

Annex 3: Interview questions

The following questions were used for each interview with follow-up questions.

1. Current landscape, Community role and developing partnerships, anything specific to urban areas in the UK and other countries
2. Impact of the different recent crises on the transition to a circular economy, especially with regard to people's attitudes and behaviours
3. Interrelation between circular economy and inequality and poverty
4. Different economic groups' attitudes to circular economy
5. Importance of formal and informal education
6. Intersections between circular economy and energy transition
7. Emerging injustices in the transition to a circular economy
8. Views on overcoming the challenges and recommendations for Scotland, including in terms of research needs.

Annex 4: Focus group questions with individuals from communities and experts

Individuals from communities focus group

Part 1: open discussion

Facilitator to ask people to introduce themselves, explain how the focus group will work practically and confirm that audio will be recorded. Ask everyone round the room to say their name. Start audio recording.

(about 5 min)

1. How do you understand the idea of a circular economy? (about 10 min)

Prompt as needed: Have you heard this phrase before? Where? Does this link to any other issues, e.g. environment, recycling, etc. – prompt only if this emerge

2. How do you understand the idea of a just transition to net zero? (about 10 min)

Prompt as needed: Have you heard this phrase before? Where? Does this link to any other issues, e.g. fuel poverty, energy transitions, green energy, etc. – prompt only if this emerges

Part 2: info intervention

Facilitator to play ZWS video to participants & just transition infographic [print to hand to participants]

<https://www.youtube.com/watch?v=sp5kkndgf-0>

3. How do you understand the circular economy and the just transition to net zero after watching this video? Do you agree with the need for a circular economy/just transition? How do you see these ideas as being relevant to your life and the place where you live? (about 20 min)
4. What is needed to change people's attitudes and behaviours towards circular economies/just transitions mindsets? (about 20 min)
5. Are you aware of any circular economy initiatives in your area? Do you think the cost of living crisis has accelerated or reduced these initiatives locally? (20 minutes)
 - A. Impact personally – consumption habits?
 - B. Impact on community/place
 - C. Impact on wider society

6. Do you think the government can tackle both the cost of living crisis and the just transition to a circular economy? (about 10 min)
 - A. Priorities
 - B. Challenges
 - C. What do communities need?

Experts focus group

Part 1: open discussion

1. How do you understand the idea of a circular economy? (about 10 min) Prompt as needed: Have you heard this phrase before? Where? Does this link to any other issues, e.g. environment, recycling, etc. – prompt only if this emerges. How does this relate to your work?
2. How do you understand the idea of a just transition to net zero? (about 10 min) Prompt as needed: Have you heard this phrase before? Where? Does this link to any other issues, e.g. fuel poverty, energy transitions, green energy, etc. – prompt only if this emerges. How does it relate to your work?

Part 2: community engagement challenges & opportunities

1. What are the key challenges to increase awareness and engagement of vulnerable communities with the environmental agenda, in particular the circular economy and just transition? Core question: “According to your experience, are people in vulnerable communities open to be environmentally friendly practices and behaviours? What are the factors influencing that?” Prompts: circular economy/buying second-hand, reusing, recycling; just transition; understanding of justice; crisis of living costs; stigma; do people trust government? Are they listened?; Education/life skills (both formal and informal – family, community...); trust (in government, public agents, politicians, political parties, leaders); is policy designed across social classes/cultural differences?; is it expensive to be environmentally friendly?
2. What are the promising practices and recommendations to increase awareness and engagement of vulnerable groups with the environmental agenda, in particular the circular economy and just transition? Core question: “From your experience, what are the most effective practices and approaches to influence mindset change?” Prompts: community engagement; dialogue/voice; building trust/sustainable practices;

campaigning/taxation/punishment/education; education/life skills (both formal and informal); building trust/consensus; is the crisis an opportunity? For whom? If yes, are responsible agents doing their bits?; is policy designed across social classes/cultural differences?

ANNEX 5: Research analysis framework and process

Research objectives	Themes/Codes	Sub-themes
Explore how people understand and apply just transition and circular economy to their everyday lives (1)	How people understand and apply just transition to everyday life (1a) How people understand and apply circular economy to everyday life (1b)	Transport, Heating, Food, Products, Clothing, Second hand
Understand the impact of crisis of living costs on citizen/ consumer attitudes and behaviour toward just transition and circular economy (2)	Poverty and inequalities (2a) Socioeconomic and cultural habits (for example, differences by class) (2b) Shame/stigma (2c) More sustainable choices (forced to?) (2d)	Survival mode (leading to potential poor environmental choices) Stigma Opportunity to learn and change
Identify the barriers and challenges for citizens/ consumers engage in positive attitudes and behaviours toward just transition and circular economy (3)	The cost to be green (3a) Language and communication (3b) Leadership/Government actions (3c)	Difficult to make rational green consumer choices in face of need to survive/stretch every penny How accessible/relatable is the language of CE and JT The example from above/driving forces/policies
Explore approaches and strategies to encourage positive behaviours and attitudes toward just transition and circular economy (4)	Language and communication (how the messages are communicated and to what extent that is relatable to people's everyday lives) (4a) Engagement and participation (what are the practical ways to engage people and enable their participation on decision-making) (4b) Grounded approaches (what are the good examples	Middle class oriented campaigns Relation with stigma Not feeling heard No clear understanding

	of practice at grassroots level developed by community organisations) (4c)	
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Analysis process

Stage 1: Familiarisation and Coding Twelve transcripts shared between three researchers for coding using the analysis framework	Stage 2: Analysis of Themes Thirteen themed scripts shared between three researchers to produce summary and discussion findings
Stage 3: Compilation of Recommendations One large script analysed using NVivo to compile a comprehensive list of recommendations from all participants	
Stage 4: Reporting Findings Findings and discussion written for report.	



Zero Waste Scotland is Scotland's circular economy expert. We exist to lead our nation to use products and resources responsibly - focusing on where we can have the greatest impact on climate change.

A not-for-profit environmental organisation, funded by the Scottish Government and European Regional Development Fund, we have the ear of the government and the voice of the people. Because of this we can play a key role in connecting communities, businesses, and public bodies - using evidence and insight to inform, inspire, and enable them to embrace the environmental, economic, and social benefits of a circular economy.

More than ever, Zero Waste Scotland is in a unique position to encourage vital shifts in behaviours to accelerate progress towards zero waste and a global circular economy. Together, we can all move towards a circular economy, restore our natural systems, and regenerate our communities in a fair and equal way.

More information on all Zero Waste Scotland's programmes can be found at <https://www.zerowastescotland.org.uk/>. You can also keep up to date with the latest from Zero Waste Scotland via our social media channels - [Twitter](#) | [Facebook](#) | [LinkedIn](#)