Measuring and evaluating success in the Scottish Just Transition: Appendices

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Appendix 1: The full Theory of Change causal chains

In Theory of Change approaches, causal chains map out the logical progression from presenting problems, activities, outputs and outcomes, and impacts. Each link in the chain represents a cause-and-effect relationship, showing how changes at one level are anticipated to influence changes at the next. By identifying and articulating these causal pathways, users can clarify assumptions, address potential risks, and evaluate whether the intended changes are plausible and achievable. Causal chains are crucial for designing effective programs and ensuring that all elements align with the overall objectives.

Structured by the outcome cluster groups, we present the causal pathways expected to produce Just Transition outcomes. These tables may be helpful in planning actions to address existing issues and in working towards desired outcomes in sectoral, regional and local Just Transition activities. To assist the Scottish Government's ambitions towards their own eight National Just Transition Outcomes (see chapter 4), these causal chains are linked to the relevant national outcome. Where activities or outputs contribute towards a mechanism, this is indicated by a shorthand reference, e.g., 'M2' means the activity/output relates to mechanism 2, Identifying and safeguarding vulnerable and affected groups.

Outcome cluster 1: Do no harm

Presenting problem	Activities	Outputs	Outcomes	Relevant SG National Outcomes
2. Without safeguards, the transition to net zero would exacerbate existing inequalities	Work with international partners to understand how supply chains are affected by the Scottish Just Transition M4	International suppliers are protected from Scottish Just Transition policies M2 M4	No additional harm is taken on by international suppliers Scottish investment and finance is retained for the benefit of Scottish people	4.Business and economy 5. Adaptation and resilience 9. Policy development and decision-making
1. Unequal distribution of transition assets and opportunities	Mitigate against potential harm that may be caused to international stakeholders and workers M2 M4	International suppliers are protected from Scottish Just Transition policies climate externalities	Scottish investment and finance is retained for the benefit of Scottish peopleNo additional harm is taken on by	9. Policy development and decision-making 3. Fair distribution of costs and benefits

		e.g. offshoring emissions M2 M4	international suppliers	
2. Without safeguards, the transition to net zero would exacerbate existing inequalities	Prioritisation of groups that are already excluded, marginalised and harmed by the current energy socio-economic system to ensure they feel the benefit of the transition to a future cleaner energy system. M2	Each government plan for the low-carbon transition considers the knock-on effects on vulnerable and affected groups M1 M2	During the transition, daily life is and remains affordable for those who are at risk of deprivation or otherwise financially vulnerable Financially vulnerable groups have greater access to high value and fair work opportunities Somethings about jobs and skills because EDI	8. Further equality and human rights 3. Fair distribution of costs and benefits 1. Citizens, communities and place
2. Without safeguards, the transition to net zero would exacerbate existing inequalities	Prioritisation of groups that are already excluded, marginalised and harmed by the current socio-economic system to ensure they feel the benefit of the transition M2 M4 Funding is diverted to those marginalised by the current socio-economic system to safeguard those at risk M3 M4	Each public body involved in the low-carbon transition considers the knock-on effects on vulnerable and affected groups M1 M2	No subgroup or geographic area with pre-existing inequalities suffers further deterioration e.g., in 1) wellbeing/ mental health, 2) income, 3) social mobility, 4) access to education, 5) multiple indices of social deprivation	8. Further equality and human rights 3. Fair distribution of costs and benefits 1. Citizens, communities and place

2. Address spatial injustice

Presenting problem	Activities	Outputs	Outcomes	Relevant SG National Outcomes
3. Net zero implies risks to the existing workforce, sectors and geographies	SG working with training providers to provide upskilling in areas which are needed in rural areas/land management M1 M6	Better training in vulnerable and affected areas conservation, improved local conservation skills, and protecting gamekeepers jobs	Reduced geographical inequalities in education access Increased geographical diversity in the prevalence of skilled individuals	3. Fair distribution of costs and benefits 5. Adaptation and resilience
4. Public buy-in and support for the net zero transition will be low if the process and outcome is perceived as unfair	Timely closure of high GHG emitting sites in Scotland M4 M6	Lower air-bourne and water-bourne pollutants in affected areas M2	Reduced geographical inequalities in exposure to climate risks and harm	3. Fair distribution of costs and benefits 7. Decarbonisation and efficiencies
1. Unequal distribution of transition assets and opportunities	Work with national partners to understand how assets and opportunities are affected by the Scottish Just Transition M4??	National suppliers are protected from inequalities through targeted subsidies M2 M4	Reduced geographical inequalities in service provision	3. Fair distribution of costs and benefits
8. Financial and budgetary constraints	Increased annual investment to help regions transition to net zero M5 M6	Regional investment results in increased disposable income and reduced poverty M5 M6	Improvements in life satisfaction across different geographies	3. Fair distribution of costs and benefits 1. Citizens, communities and place 5. Adaptation and resilience
1. Unequal distribution of transition assets	Offer incentives for young people to use public	Support for modal change and lower proportion of	Reduced geographical inequalities in	3. Fair distribution of costs and benefits

Presenting problem	Activities	Outputs	Outcomes	Relevant SG National Outcomes
and opportunities	transport M4 M2	monthly income spent on transport M4 M2	transport poverty	5. Adaptation and resilience 8. Further equality and human rights
	Improve public transport bus infrastructure to connect people in lower socio-economic groups M2 M5	Transport links to increase flexibility in how a community adapts M5		
2. Without safeguards, the transition to net zero would exacerbate existing inequalities	Utilising and valuing the skills of local rural populations/gamekeepers in land reform policy as well as climate mitigation/adaptation M1 M3	Transparent land register (inc. clear ownership allocation) M2	Reduced geographical inequalities in affordable housing	3. Fair distribution of costs and benefits 1. Citizens, communities and place
2. Without safeguards, the transition to net zero would exacerbate existing inequalities	Investment is targeted towards vulnerable areas/people M2 M5	New jobs are created in disadvantaged areas at a higher replacement rate than jobs lost M2 M5	Lower levels of income inequality between local/regional authority areas	3. Fair distribution of costs and benefits 8. Further equality and human rights 1. Citizens, communities and place
3. Net zero implies risks to the existing workforce, sectors and geographies	Review of subsidies for those working in key vulnerable areas of the economy M1 M5	Producers (e.g. farmers/fishers) being paid fairly M2		
6. Few planning processes and decision-making mechanisms that engage effectively	Place-based planning involves locals and is focused on long-term economic	Place-based plans for low-carbon transition provide net economic benefits to local		

Presenting problem	Activities	Outputs	Outcomes	Relevant SG National Outcomes
with transition challenge	effects M3 M4	populations M2		

3. Address financial injustice

Presenting problem	Activities	Outputs	Outcomes	Relevant SG National Outcomes
1. Unequal distribution of transition assets and opportunities	Community benefits from renewable energy providers M4	Subsidies for the fuel poor M2	Reduction in fuel poverty	8. Further equality and human rights 3. Fair distribution of costs and benefits 1. Citizens, communities and place
		More community owned power M4		
	Deliver heat and energy efficiency policy to help those who are least able to pay M2 M1	Insulation subsidies targeted at these least able to afford it M2 M5		
	People with additional energy needs, such as those experiencing disability, are supported with energy costs. M2 M4	Energy costs are lower for vulnerable groups M2 M4		
	Institution of a social tariff to lower energy bills for vulnerable groups M2 M4			
9. Policy-makers must make choices around priorities and trade-offs	Deliver heat and energy efficiency policy to help those who are least able to pay M1 M2	Higher environmental standards for new buildings e.g. improved insulation and energy efficiency M2	Accessible and affordable housing and rents	8. Further equality and human rights 3. Fair distribution of costs and benefits 7. Decarbonisation and efficiencies
8. Financial and budgetary constraints	Enhancement of the Just Transition Fund for national, joined up, scaled investment similar to the EU's	Improved economic diversification, stronger local economies M4	Reduction in income inequality	4.Business and economy 1. Citizens, communities and place

Presenting problem	Activities	Outputs	Outcomes	Relevant SG National Outcomes
	M4 M5 M6	M2		3. Fair distribution of costs and benefits
9. Policy-makers must make choices around priorities and trade-offs	Improve public transport bus infrastructure to connect people in lower socio-economic groups M2 M5	Transport links to reduce daily costs M5	Reduction in persistent poverty	8. Further equality and human rights 3. Fair distribution of costs and benefits
2. Without safeguards, the transition to net zero would exacerbate existing inequalities	More jobs for those in vulnerable and affected groups M2 M6	Higher household income for children in poverty M2 M6	Reduction in child poverty	8. Further equality and human rights 3. Fair distribution of costs and benefits
6. Few planning processes and decision-making mechanisms that engage effectively with transition challenge	Investment is targeted towards vulnerable areas/people M2 M5	Improvements in income and reduction of costs for the most vulnerable people in Scotland M2 M4 M5	Reduction in wealth inequality	8. Further equality and human rights 3. Fair distribution of costs and benefits

4. Empowerment to act

Presenting problem	Activities	Outputs	Outcomes	Relevant SG National Outcomes
6. Few planning processes and decision-making mechanisms that engage effectively with transition challenge	Citizens juries, local authority policy ownership, and devolved competences underpinned by communication campaigns M3 M1	Participation mechanisms ensure communities and local authorities have a more proactive role in having their voices heard in how local services are planned and delivered. M3 M1	Increased sense of agency across Scotland – the ability of individuals, citizens and communities to determine and shape the direction of a Just Transition	9. Policy development and decision-making 1. Citizens, communities and place 5. Adaptation and resilience
7. Power and representation is skewed so that many communities feel disempowered	Promote education that helps people grow and achieve their goals M1	Capacity building in communities for devolved power and decision making M3 M1		
	Increases in deliberative processes such as climate assemblies that meaningfully consult Scottish residents M3	Communities are equipped with the skills, resources and power required to take meaningful action M3 M4		
6. Few planning processes and decision-making mechanisms that engage effectively with transition challenge	Reviews of Just Transition policies systematically engage with local stakeholders M3	Local knowledge is recognised formally in Scottish Government policy M3 M1		

Presenting problem	Activities	Outputs	Outcomes	Relevant SG National Outcomes
4. Public buy-in and support for the net zero transition will be low if the process and outcome is perceived as unfair	Public Awareness Campaigns underpinned by accessibility principles M1 M2 Promote education that helps people grow and achieve their goals M1	Capacity is built through education and training, information access, collaboration, and networking M3 M1	All members of society are able to engage in climate action	7. Decarbonisation and efficiencies 6. Environmental protection and restoration
7. Power and representation is skewed so that many communities feel disempowered	Communication campaigns that promote workplace democracy and decision-making M3	Increase in union membership in Scotland M3	Access to union representation	8. Further equality and human rights
6. Few planning processes and decision-making mechanisms that engage effectively with transition challenge	Reviews of Just Transition policies systematically engage with local stakeholders M3	For local knowledge to be recognised formally in SG policy M3 M1		9. Policy development and decision-making

5. Stronger democratic processes

Presenting problem	Activities	Outputs	Outcomes	Relevant SG National Outcomes
6. Few planning processes and decision-making mechanisms that engage effectively with transition challenge	Participation mechanisms ensure communities have a more proactive role in having their voices heard in how local services are planned and delivered. M3	Just Transition planning and activities are carried out deliberatively M3	Democratic participation: increased trust in local institutions and decision making	9. Policy development and decision-making 1. Citizens, communities and place
		Public recognition that the Just Transition is carried out deliberatively and has produced positive effects M1 M3		
		Increased participation and representation in decision making		

6. Increasing in community ownership and productivity

Presenting problem	Activities	Outputs		Outcomes	Relevant SG National Outcomes
1. Unequal distribution of transition assets and opportunities	Incentives for communities to raise capital and to invest in the low-carbon transition M4 M1	Higher levels of community capital and wealth M4		Increase in community-owned buildings	1. Citizens, communities and place 4. Business and economy
8. Financial and budgetary constraints	Allow citizens to invest in the transition to net zero M5 M1 M3	Raise community capital and community wealth M4		Increase in community-owned energy	3. Fair distribution of costs and benefits 1. Citizens, communities and place 4.Business and economy
8. Financial and budgetary constraints	Scottish Government support for local ownership and community ownership of new renewable energy systems. M1 M5	More community and locally- owned clean energy projects M4			
1. Unequal distribution of transition assets and opportunities	Development of soft skills in the community for affected areas , e.g. the Coalfields Regeneration Trust M1 M6	People in communities win grants and gain community assets speak the language of bureaucrats and employers M3 M6		Increased community social capital	1. Citizens, communities and place 4.Business and economy 2. Jobs, skills and education
	More community ownership leads to residents working together and sharing risks M3 M4	Raised community coworking and trustcapital and community wealth M4			
1. Unequal distribution of	Scottish Government policies support	Regional Land Use Partnershi	Improved access to land	Increased community and local ownership of	1. Citizens, communities and place

Presenting problem	Activities	Outputs		Outcomes	Relevant SG National Outcomes
transition assets and opportunities	for local ownership and community ownership of new renewable energy systems. M4 M1	ps M4	ownership M1 M3	land	4.Business and economy

7. Jobs and skills for the high- to low-carbon transition

Presenting problem	Activities	Outputs	Outcomes	Relevant SG National Outcomes
9. Policymakers must make choices around priorities and trade-offs	Enterprise grants sustained over a long period M5 M6	Accessible paths created towards alternative employment for those in high carbon industries M6 M2	Employment patterns show new job opportunities replacing carbon-intensive jobs/Decline in carbon-intensive	2. Jobs, skills and education 4.Business and economy 3. Fair distribution of costs and benefits 5. Adaptation and resilience e.g. exposure to the effects of global energy price Shocks 7. Decarbonisation and efficiencies 9. Policy development and decision-making
	Investing in buildings, energy, and transport to create demand for green jobs M5			
8. Financial and budgetary constraints	Work with education and training providers to ensure sufficient supply of courses and places to accommodate retraining for staff from carbon-intensive industries M1 M4 M6	Skills guarantee for workers, implemented in carbon-intensive sectors M6		
	Supporting businesses through loans or cash in exchange for equity M5 M6	Medium- to long-term transition plans for people who work in high carbon sectors and their communities M6 M1		
8. Financial and budgetary constraints	Supporting businesses through loans or cash in exchange for equity &	Replace fossil fuel revenue streams M6 M4		

Presenting problem	Activities	Outputs	Outcomes	Relevant SG National Outcomes
	Enterprise grants sustained over a long period M5 M6			
1. Unequal distribution of transition assets and opportunities	Increased opportunities for more people, particularly women and vulnerable groups, to gain qualifications, training and employment in key transition sectors M6 M2 Aligning skills policy to help people access green jobs through retraining and reskilling M1 M6	Aligning skills policy to help people access green jobs through retraining and reskilling M1 M6 Increased opportunities for more people, particularly women and vulnerable groups, to gain qualifications, training and employment in key transition sectors M6 M2		
2. Without safeguards, the transition to net zero would exacerbate existing inequalities	Embedding Introduce Fair Work standards throughout within the public sector M1 Work with employers and trade unions to create Fair Work Agreements, which aim to provide better pay and security of work, and to promote collective bargaining M3 M1	Accessible paths for everyone into training and education for meaningful work M1	The jobs created in the net zero energy economy are good, meaningful, high value and sustainable jobs, underpinned by a commitment to collective bargaining and ensuring workers have the ability to shape their place of work	2. Jobs, skills and education 8. Further equality and human rights 4.Business and economy

Presenting problem	Activities	Outputs	Outcomes	Relevant SG National Outcomes
1. Unequal distribution of transition assets and opportunities	Increased opportunities for more people, particularly women and vulnerable groups, to gain qualifications, training and employment in key transition sectors M2 M6 Work with education and training providers to ensure sufficient supply of courses and places to accommodate training for new jobs in the low-carbon economy M1 M4 M6	Increased opportunities for more people, particularly women and vulnerable groups, to gain qualifications, training and employment in key transition sectors M2 M6	Increased supply of education and training courses in areas most affected by transition	2. Jobs, skills and education 9. Policy development and decision-making
3. Net zero implies risks to the existing workforce, sectors and geographies	Aligning skills policy to help people access green jobs through retraining and reskilling M1 M6 Long-term sustained support for retraining M6	Skills guarantee for workers implemented in carbon-intensive sectors M6 M1		
2. Without safeguards, the transition to net zero would exacerbate existing inequalities	Identification of vulnerable and affected groups and incentivising their enrolment in education and	Accessible paths for everyone into training and education for meaningful work M4 M1	Greater workforce equality, diversity, security and representation People can access	8. Further equality and human rights 2. Jobs, skills and education 1. Citizens,

Presenting problem	Activities	Outputs	Outcomes	Relevant SG National Outcomes
	training courses M2 M4		low-carbon jobs in their area or community.	communities and place 2. Jobs, skills and education
6. Few planning processes and decision-making mechanisms that engage effectively with transition challenge	Key stakeholders to reach an agreement as to the future of high carbon industries M3 M1 Multi-stakeholder and multi-disciplinary consultations become an essential part of any closures M3	Medium- to long-term transition plans for people who work in high carbon sectors and their communities which are continuously monitored as they are implemented M2 M3 M4	[feeds into most outcomes]	9. Policy development and decision-making 7. Decarbonisation and efficiencies

8. Transition to net zero

Presenting problem	Activities	Outputs		Outcomes	Relevant SG National Outcomes
4. Public buy-in and support for the net zero transition will be low if the process and outcome is perceived as unfair	Just Transition awareness raising activities and experience of direct benefits M1	Increased public awareness of benefits of transition to net zero M1	Reduction of demand for high carbon producing activities M1	Reduction of Scotland's GHG emissions and increases to biodiversity	7. Decarbonisation and efficiencies 6. Environmental protection and restoration
4. Public buy-in and support for the net zero transition will be low if the process and outcome is perceived as unfair	Timely closure of high GHG emitting sites in Scotland M6 M4	Lower air-bourne and water-bourne pollutants in affected areas M2		Reduced pollution related health impacts including indoor and outdoor air quality for vulnerable groups.	6. Environmental protection and restoration
3. Net zero implies risks to the existing workforce, sectors and geographies	Just Transition activities safeguard most vulnerable members of society in Scotland M2	Improvements in work, income, and lower daily costs M2		Improved standard of work and quality of life for beneficiaries of Just Transition policies	7. Decarbonisation and efficiencies [Positive impact of decarbonisation on living and work]

Appendix 2: Methods overview

The methods for this project were structured to respond to the three aims:

1. To find **alignment** between the various published and unpublished Just Transition outcomes, plans and strategies for Scotland
2. To develop a framework that can outline **necessary Just Transition actions** and the responsible partners for the Scottish Government and others
3. To provide a convincing and research-based vision of **what might work** to realistically lead to a Just Transition in Scotland

To achieve these aims, we used a range of methods: Theory of Change workshops, validation workshop, documentary content analysis, interviews and data matching. Table 3 provides a detailed overview.

Table 3: Methods overview (Source: the authors)

Method	Detail	Fit to aims
Outputs of the project inception meeting	An initial co-design scoping meeting with key members of the Just Transition Commission and Secretariat to determine the expectations for, scope and delivery of the work.	N/A
Two Theory of Change workshops with the Just Transition Commission	Two workshops (one hybrid and one virtual) with members of the Just Transition Commission and Secretariat. These were spaced approximately three months apart (August and October 2024) and were used to present, discuss, refine and validate work undertaken in the intervening period. Draft materials were shared in advance and edited in real-time. Miro was used to enable collaborative work e.g., in selecting crucial outcomes to measure.	2, 3

Validation workshop	An online meet was held in October 2024 with the Just Transition Commission and representatives from the Scottish Government and ClimateXChange. The purpose was validation of the model, areas of uncertainty, and identification of data gaps. Miro was used for collaborative exercises.	1, 2, 3
Review and content analysis of relevant documentation	A rapid evidence review of 42 English language texts including relevant plans, policies, reports and comparators. Identified via a keyword search, documents were analysed through a coding framework focused on just transition scope; problem statements; aims/outcomes/vision; indicators/measures; recommendations and other relevant notes. Appendix 4 gives a full list of documents consulted.	1, 2
Stakeholder interviews	Twelve scoping interviews were used to understand the perspective of affected groups, sectors and regions for the National Just Transition plan; explore their needs, risks, potential unintended consequences; and to ensure that perspectives outside of the Just Transition Commission were reflected in the Theory of Change. Where permission was given to identify the respondents, their details are given in Appendix 3 alongside the interview questions.	1, 2, 3
Data matching	Informed by an extensive evidence review, including evaluation of over 30 national Just Transition indicator data sources such as the Scottish Household Survey, this step-wise task included the identification of individual measures within currently collected sources and selection of indicators before data matching to determine relevant measures. After several iterations, data gaps were identified and prioritised.	2, 3

Analysis and reporting	The analysis and reporting task built on all other methods to present an evidence-informed, coherent, and user-friendly overview of the work. Analysis took several forms, including qualitative data analysis and extensive reflection and deliberation. Reporting was coordinated through regular team meetings with project members (particularly David Drabble and Kirsten Jenkins), and subject to several rounds of review from members of the Just Transition Commission and Secretariat, including via a final in-person project meeting in November 2024. The reporting review formed an integral part of quality assurance processes, providing a final external quality check on the research outputs and their usability.	1, 2, 3

Appendix 3: List of interviewees and interview questions

Name	Position	Organisation
Jack Barrie	Senior Research Fellow	Chatham House
Martin Canavan	Head of Policy and Participation	Aberlour Children's Charity
Ben Christman	Legal Director	Environmental Rights Centre for Scotland
Matthew Crighton	Secretary	Just Transition Partnership
Elizabeth Docherty	Director	Scottish Community Alliance
Kit England	Senior Climate Resilience and Adaptation Specialist	Paul Watkiss Associates
Diana Garduño Jiménez	Senior Food Justice Officer	Nourish Scotland
Andy Inch	Director of Education and Senior Lecturer	School of Geography and Planning, University of Sheffield
Fiona McHardy	Research and Information Manager	The Poverty Alliance
Daria Shapovalova	Director	Centre for Energy Law, University of Aberdeen
	Coordinator	Just Transitions Lab, University of Aberdeen
Kenneth Stephen	PR and Communications Officer	Scottish Gamekeepers Alliance

Fraser Stewart	Just Transition Lead	Regen
Joanna Teuton and Michelle Gillies	Public Health Intelligence Advisor Public Health Medicine Consultant	Public Health Scotland

Semi-structured interview questions

1. What engagement have you or your organisation had in the Just Transition debate ?
2. How do you define the Just Transition? Probe: how wide is the scope? Has it changed in recent years?
3. What, in your view, are the problems that Just Transition has been set up to address?
4. What do you think the long term aims of the Just Transition in Scotland are or should be?
5. What actions have you seen so far with the Just Transition in Scotland in [your area of expertise]?
6. In the next 5-10 years, what would success look like? Prompt: What are the key elements to measure?
7. What are the key elements to put in place to achieve success? Prompt: what are the active ingredients that will help Scotland reach a Just Transition? Rules and incentives, opportunities, capacity building etc.
8. How would you evaluate the failure of the Just Transition? Prompt: What would failure look like? How would we know if it's not working?
9. Are there any documents or indicators you could point us to guide our thinking?

Appendix 4: Documents reviewed for Theory of Change

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Appendix 5: Dashboard for key mechanisms and outcomes

Available national mechanisms data

Mechanism	Measure	Currently available data for national measurement	Data source	2018	2019	2020	2021	2022	2023	2024	Change	Progress
Embedding the Just Transition across all policy areas and levels	1.2 Proportion of relevant private investors who report and act on Just Transition outcomes	Proportion of private investors in low carbon energy who follow guidance on community benefits	Link	71%	67%	25%	32%	64%	67%		3%	Improving
Investment in the wellbeing economy and Just Transition activities	5.2 Annual private investment on activities categorised as related to Just Transition	Total annual community benefit funding from new investments in low carbon Scottish economy	Link	£80,978	£22,677	£10,000	£23,500	£35,000	£20,000		-43%	Declining

Mechanism	Measure	Currently available data for national measurement	Data source	2018	2019	2020	2021	2022	2023	2024	Change	Progress
	5.3 Overall progress on wellbeing economy indicators	Proportion of wellbeing economy indicators that are improving performance	Link					35.71%	25.00%		-10.71%	Declining
Support for jobs and skills for the high- to low-carbon transition	6.2 Annual learning hours spent on training and education for low-carbon economy skills for those in vulnerable groups - EDI measures -	Proportion of adults in Scotland who participated in learning in the past three years according to the Adult Participation in Learning Survey	Link	34.00%	38.00%		41.00%	39.00%	41.00%	48.00%	7%	Improving

Available national outcomes data

Outcome	Measure	Currently available data for national measurement	Data source	2018	2019	2020	2021	2022	2023	2024	Change	Progress
Do no harm	1.1 Gini coefficient (a measure of wealth inequality in the population, ranging from 0 to 1, where 1 stands for total inequality) across all population subgroups currently experiencing inequality does not deteriorate from baseline (Annual change)	Gini coefficient of wealth inequality (whole population)	Link	62.00%		64.00%					2.00%	Declining
Addressing spatial justice	2.6 Reduced geographical differences in access to good quality green space	Proportion of adults who live within a 5 minute walk of their local green or blue space.	Link	65.30%	65.60%			69.60%			4.00%	Improving
	2.7 Increased resilience of	Proportion of properties at risk of flooding which have	Link	1.67%		1.79%					0.12%	Maintaining

Outcome	Measure	Currently available data for national measurement	Data source	2018	2019	2020	2021	2022	2023	2024	Change	Progress
	properties at risk of flooding	Property Flood Resilience										
	2.8 Work related quality of life is improved in affected areas	Percentage of people who respond positively to work's impact on mental and physical health (%)	[Link]			27.50%	33%	27.50%	29.50%		2.00%	Improving
	2.8 Work related quality of life is improved in affected areas	Percentage of people who answered positively about how they feel at work (At my work I feel full of energy/I am enthusiastic about my job/Time flies when I am working)	[Link]			43.67%	47%	44%	44.33%	44%	-0.33%	Maintaining
Addressing financial injustice	3.1 Gini coefficient (a measure of income inequality in the population, ranging from 0 to 1, where 1 stands for total inequality) by	Gini coefficient of income inequality	[Link]	127	124	121	120	118	134		13.56%	Declining

Outcome	Measure	Currently available data for national measurement	Data source	2018	2019	2020	2021	2022	2023	2024	Change	Progress
	vulnerable group (Annual change)											
	3.2 Reduced prevalence of transport poverty	Percentage of high risk of transport poverty data zones located in each local authority area	Link									
	3.3 Reduced prevalence of fuel poverty	Percentage of households in fuel poverty	Link		24.60%			31.00%			6.40%	Declining

Outcome	Measure	Currently available data for national measurement	Data source	2018	2019	2020	2021	2022	2023	2024	Change	Progress
	3.4 Reduced prevalence of child poverty	Reduced triennial percentage of child poverty (relative, absolute, material or persistant) - only relative poverty shown in data tables here	Link	20.00%	20.00%	21.00%	20.00%	22.00%	23.00%		1.00%	Maintaining
	3.5 Improved quality of life for vulnerable groups	Percentage of people in Scotland who rate their life satisfaction as high	Link	30.10%				24.84%			-5.26%	Declining
Empowerment to act	4.1 Number of successful community participation requests	Number of successful community participation requests per year	Link	12	15						25.00%	Improving

Outcome	Measure	Currently available data for national measurement	Data source	2018	2019	2020	2021	2022	2023	2024	Change	Progress
	4.2 Communities relevant to Just Transition initiatives feel listened to	1. Percentage of people who think in general the Scottish Government is good at listening to people's views before it takes decisions, by subgroups.	[Link](#)		51%				35%		-16%	Declining
	4.2 Communities relevant to Just Transition initiatives feel listened to	2. Percentage of people who agree they have the opportunity to influence decisions the Scottish Government is making about climate change.	[Link](#)					27%				
	4.3 Those involved in climate change engagement activities felt respected	Percentage of people who agree they have the opportunity to influence decisions the Scottish Government is making about climate change.	[Link](#)					27%				

Outcome	Measure	Currently available data for national measurement	Data source	2018	2019	2020	2021	2022	2023	2024	Change	Progress
	4.4 Generally, Scottish people feel able to influence their own lives and the future	Percentage of people who think in general the Scottish Government is good or not good at listening to people's views before it takes decisions, by subgroups	Link		51%				35%		-16%	Declining
	4.5 Improvements in civic engagement scales on attitude: (I believe I should make a difference in my community) and behaviour (I stay informed of events in my community)	Percentage of adults who have done formal volunteering in the last 12 months, by subgroup and local authority	Link	27.00%	26.00%			22.00%			-4%	Declining
Stronger democratic processes	5.1 Percentage of people who agree with the statement: 'My local council is good at listening'	Percentage of people who respond 'Strongly agree' or 'tend to agree' to 'Can you influence local decisions?'	Link		18.00%			18.00%			0%	Maintaining

Outcome	Measure	Currently available data for national measurement	Data source	2018	2019	2020	2021	2022	2023	2024	Change	Progress
	5.2 Percentage of people who agree with the statement: 'I can influence decisions affecting my local area'	Percentage of people who respond 'Strongly agree' or 'tend to agree' to 'Can you influence local decisions?'	Link		18.00%			18.00%			0%	Maintaining
Increase in community ownership and production	6.1 Number of community or locally owned renewable energy installations/ operational renewable energy capacity in community and local ownership (in absolute numbers and MW)	Number of community or locally owned renewable energy installations/ operational renewable energy capacity in community and local ownership (in MW)	Link			853	896	908	1,028		13.20%	Improving
	6.1 Number of community or locally owned renewable energy installations/ operational renewable energy	Number of community or locally owned renewable energy installations/ operational renewable energy capacity in community and local	Link				29,000	26,290	27,900		6.12%	Improving

Outcome	Measure	Currently available data for national measurement	Data source	2018	2019	2020	2021	2022	2023	2024	Change	Progress
	capacity in community and local ownership (in absolute numbers and MW)	ownership (in annual numbers of installations)										
	6.2 Number of assets in community ownership (any land, buildings and any other property of substantial value that a community group may own)	Number of assets in community ownership (building only/land and building)	Link	611	658	685	738	754			2.17%	Improving
	6.3 Area of community assets (in hectares)	Area of community assets (in hectares)	Link	211, 537	212, 006	212, 059	212, 326	212, 342			0.01%	Maintaining

Outcome	Measure	Currently available data for national measurement	Data source	2018	2019	2020	2021	2022	2023	2024	Change	Progress
	6.4 Number of community groups in Scotland (groups within a specific geographical community, with open membership, locally-led and controlled, non-profit, aiming to further sustainable development in the local area, and demonstrating a sufficient level of support/community buy-in)	Number of community groups on Scottish Communities Climate Action Network member directory	Link					395		538	36.20%	Improving
Support for jobs and skills 1 (skills)	7.1.4 Educational attainment of labour force in affected areas	Proportion of population qualified to at least Level 4 SQNF or higher (aged 16-64) per local authority	Link	42.70%	43.80%	46.80%	48.10%				1.30%	Improving
	7.1.5 Participation in life-long-learning in affected areas	Percentage of participants in learning	Link					30.00%	30.00%		0%	Maintaining

Outcome	Measure	Currently available data for national measurement	Data source	2018	2019	2020	2021	2022	2023	2024	Change	Progress
		by lowest social grade (DE) in Scotland										
	7.1.5 Participation in life-long-learning in affected areas	Gross expenditure by Scottish local authorities spent on adult community learning per year	Link				£34,116,000	£25,199,000	£32,284,000		28.12%	Improving
	7.1.6 Participation in adult learning in affected areas	Percentage of participants in learning by lowest social grade (DE) in Scotland	Link					30.00%	30.00%		0%	Maintaining

Outcome	Measure	Currently available data for national measurement	Data source	2018	2019	2020	2021	2022	2023	2024	Change	Progress
Support for jobs and skills 2 (jobs)	7.2.2 High-skilled occupations as a proportion of the workforce (High-skilled occupations are classified in the SOC2010 categories 1,2,3 (by demographics) maintains or improves baseline levels	High-skilled occupations (level 4) as a proportion of the workforce per industry and demographic	Link			29.60%						
	7.2.3 National improvement in Work Related Quality of Life scale (WRQoL)	Percentage of people who respond positively to work's impact on mental and physical health (%)	Link			27.50%	33%	27.50%	29.50%		2.00%	Improving
	7.2.3 National improvement in Work Related Quality of Life scale (WRQoL)	Percentage of people who answered positively about how they feel at work (At my work I feel full of energy/I am enthusiastic about my	Link			43.67%	47%	44%	44.33%	44%	-0.33%	Maintaining

Outcome	Measure	Currently available data for national measurement	Data source	2018	2019	2020	2021	2022	2023	2024	Change	Progress
		job/Time flies when I am working)										
	7.2.4 For affected groups, wage differences are on balance better or equal to previous work	1a. Proportion of those currently in a green job vs those not in green job earning over £60,000 a year	Link					45.00%				
	7.2.4 For affected groups, wage differences are on balance better or equal to previous work	1b. Proportion of those currently in a green job vs those not in green job earning over £40,000 a year	Link					91.46%				
	7.2.4 For affected groups, wage differences are on balance better or equal to previous work	2. Number of people who responded wage as a barrier to moving to a green job	Link					56.40%				

Outcome	Measure	Currently available data for national measurement	Data source	2018	2019	2020	2021	2022	2023	2024	Change	Progress
Transition to net zero	8.1 Reduction of Scotland's carbon footprint expressed in million tonnes of carbon dioxide equivalent	Scotland's carbon footprint expressed in million tonnes of carbon dioxide equivalent per year	[Link](#)	44.3	42.6	37.1					-12.91%	Improving
	8.2 Improvements to biodiversity in terms of marine abundance	Average marine abundance in Scotland per year	[Link](#)	64.2	59.3						-7.65%	Declining
	8.3 Improvements to biodiversity in terms of terrestrial abundance	Average terrestrial abundance in Scotland per year	[Link](#)	99.4 2183 69	101. 3445 12						1.93%	Improving