

How can we measure whether the transition in the North East and Moray is achieved in a 'just' fashion – what data will need to be collected so progress can be measured?

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Submission on behalf of Just Transition Lab (University of Aberdeen)

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The [Just Transition Lab](#) is an interdisciplinary group of researchers from the Business School, School of Engineering, School of Geosciences, School of Law, and the School of Social Sciences working on advancing impact-driven research on Just Transition. Based in Aberdeen, the Lab's researchers work at the forefront of Just Transition challenges, employing action and participatory research to facilitate insightful policy analysis and engagement with key stakeholders.

For a year now, researchers in the Lab have been working on a project 'Just Transition for Workers and Communities and Aberdeen and Aberdeenshire', funded by Uplift. This project's aims are to identify and analyse the relevant literature as well as **socio-economic and demographic data**; use participatory research to develop **regional Just Transition indicators and scenarios**; and **review the existing policies** against these indicators and scenarios. Researchers from social science, geography, law, and economics are engaging with the local stakeholders and civil society to deliver an impactful evidence base for defining and measuring Just Transition in Aberdeen and Aberdeenshire. The project so far produced a [phase 1 report](#) featuring the Rapid Evidence Assessment (REA) highlighting how the oil and gas industry shaped the region and what the current efforts towards the Just Transition are.

We are now in the final stages of the preparation of the report on indicators for measuring Just Transition in Aberdeen and Aberdeenshire, related data we collected, and scenarios for a transition in the region. In this submission, we are providing an overview and excerpts from this draft report.

It starts with the discussion of approaches to measuring Just Transition, generally and in Scotland in section 2. It then introduces the process we used to develop our set of themes and indicators in section 3. Finally, sections 4-7 present an overview of the indicators and data, we collected on four themes:

- Jobs, skills, and earnings
- Health and wellbeing
- Democratic participation
- Community empowerment, revitalisation, and net zero.

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1. *Introduction and scope*

Since oil was first discovered in the North Sea in 1969, over 46.4 billion boe of oil and gas has come from the UK continental shelf.² Aberdeen and its surrounding areas became the hub for the oil and gas industry when it first arrived at the UK shores. From the ‘oil capital’ of Europe, Aberdeen has now become an ‘energy capital’ – hub not only for oil and gas but also for offshore technologies in renewables and decommissioning. The production of oil and gas from the UK continental shelf peaked in 1999 and has been in decline since. In addition, commitments to net zero and the UK’s legal obligations to mitigate climate change are reshaping the energy industry.

The North East of Scotland is at the forefront of the energy transition processes in the UK. With the transformation of the UK’s energy sector and the integration of climate goals into the energy decision-making, lives of communities and workers in Aberdeen and Aberdeenshire are directly affected by changes in the labour market and new energy and climate policies. In March 2022, the Aberdeen Net Zero Route Map 2045 was launched featuring ‘Just Transition’ as one of the desirable outcomes.³ Energy transition and the North East feature extensively in the work of the Scottish Government’s Just Transition Commission.⁴

Just Transition refers to a fair distribution of burden and benefits of the transition to a low-carbon economy. Precise definition and scope of Just Transition will vary depending on context. Often, a narrower definition of Just Transition is used, focusing on workers, owing to the term’s origin from United States trade unions in the 1980s.⁵ Over time, a wider approach emerged, particularly in academia, bringing together all elements of society in transition, and encompassing energy justice, climate justice, and environmental justice.⁶ In our project we take this broader approach to Just Transition, focusing on the wider community while acknowledging the centrality of workers’ rights in transition, particularly in the context of the North East of Scotland.

² NSTA, UK Oil and Gas: Reserves and Resources (2022). Boe is barrel of oil equivalent -the amount of energy that is equivalent to the amount of energy found in a barrel of crude oil.

³ Aberdeen City Council, Net Zero Aberdeen Routemap: Towards Becoming a Net Zero Emissions City by 2045 (2022).

⁴ In 2022, the Scottish Government established a £500 million Just Transition Fund for projects in the North East and Moray. See also, Just Transition Commission, Making the Future: Initial Report of the 2nd Just Transition Commission (2022).

⁵ P. Newell and D. Mulvaney, ‘The Political Economy of the “Just Transition”’, *The Geographical Journal* (2013), doi:10.1111/geoj.12008. See also, Solidarity and Just Transition Silesia Declaration (2018); UNFCCC, Just Transition of the Workforce, and the Creation of Decent Work and Quality Jobs (UN 2020).

⁶ R. Bray and R. Ford, Delivering a Just Transition to Net Zero: Whose Role is it Anyway? (University of Strathclyde, 2021) doi:10.17868/78376; K.E.H. Jenkins at al., ‘Politicising the Just Transition: Linking Global Climate Policy, Nationally Determined Contributions and Targeted Research Agendas’, 115 *Geoforum* (2020), <https://doi.org/10.1016/j.geoforum.2020.05.012>.

2. Measuring Just Transition: approaches to indicators development

While Just Transition is a well-established concept in academic literature and policy-making, there is a lack of data and methods on data on how we can measure progress towards achieving a Just Transition.

2.1 Existing approaches to Just Transition indices

While there are well-established processes of measuring country-level progress in energy transition⁷ or greenhouse gas emissions mitigation,⁸ there is experience with data-driven and place-based Just Transition measurement. This is consistent with observations in literature regarding the “marginalisation of social dimensions, and a bias towards quantitative physical and environmental factors”.⁹

A few studies critically reviewed the suitability of indicator methods measuring sustainability/just transitions.¹⁰ Purvis and Genovese summarise the challenges of using indicators as follows in Table 1.

Table 1: Challenges of indicator-based approaches as identified from literature in B. Purvis and A. Genovese (2023)¹¹

Step	Technical Issues	Episto-ontological Challenges
1) Selection	<ul style="list-style-type: none"> • Determining problem scope • Getting the right coverage • Different understanding of terms • Quality criteria • Which stakeholders? How can they input? 	<ul style="list-style-type: none"> • Reductionism: can complex socio-environmental factors be reduced to a series of indicators? • Measuring the immeasurable: marginalisation of social / qualitative aspects
2) Theoretical framework	<ul style="list-style-type: none"> • Absence of theory • Handling complexity • Difficulty of comparing disparate factors • Weighting & normalisation 	<ul style="list-style-type: none"> • Trade-offs as inherent? • The whole is bigger than the sum of its parts • Depoliticisation • Arbitrariness
3) Implementation & outcomes	<ul style="list-style-type: none"> • Data constraints • Limited resources • Lack of political will • Failure of consensus 	<ul style="list-style-type: none"> • Lack of pluralism • Difficulty of observing and measuring outcomes

⁷ World Economic Forum *Fostering Effective Energy Transition 2021 edition* (2023)

⁸ See eg United Nations Framework Convention on Climate Change, *Reporting Requirements*.

⁹ B. Purvis and A. Genovese, ‘Better or Different? A Reflection on the Suitability of Indicator Methods for a Just Transition to a Circular Economy’, 212 *Ecological Economics* (2023), <https://doi.org/10.1016/j.ecolecon.2023.107938>. See also T. Calzolari and others, ‘Circular Economy Indicators for Supply Chains: A Systematic Literature Review’, 13 *Environmental Sustainability Indicators* (2022), <https://doi.org/10.1016/j.indic.2021.100160>.

¹⁰ B. Purvis and A. Genovese, *ibid*; P. Verma and A.S. Raghubanshi, ‘Urban Sustainability Indicators: Challenges and Opportunities’, 93 *Ecological Indicators* (2018), <https://doi.org/10.1016/j.ecolind.2018.05.007>.

¹¹ B. Purvis and A. Genovese, *ibid*.

As seen in Table 1 above, challenges arise at all steps of the process, from indicator selection to developing and applying theoretical frameworks to the analysis, to difficulties in measuring and implementing the outcomes. Decisions on which indicators are relevant can be expert-led, “initiated primarily by governments and based on expert input; or from the ‘bottom’ (citizen-led) drawing on local expertise and networks, and involving the public”.¹² In Just Transition measurement, the lack of common understanding between various communities, groups, and stakeholders on the precise definition of Just Transition may lead to challenges in selecting indicators spanning from concerns of reductionism to focusing only on narrow themes, such as jobs and training. The process usually starts with a literature review of the relevant backgrounds and facts, as well as theoretical approaches, followed by the “external input from stakeholders or ‘experts’ to refine a set of indicators”.¹³

Developing a robust theoretical framework for indicators aims to depoliticise the process and remove bias and arbitrariness. As with any emerging concept, there is a question of whether the theoretical frameworks guide the choice of indicators, or whether the indicators themselves will inform the development and understanding of the concept of Just Transition. As an example, while the concept of ‘sustainable development’ existed for many years before the adoption of the Sustainable Development Goals in 2015, many today understand and define ‘sustainable development’ by using the targets and indicators from the SDG framework. For Just Transition, many frames exist through which the term can be viewed. It can be understood and framed around distributive, procedural, and restorative justice; or social, environmental, and climate justice. Alternatively, or in addition, one could frame Just Transition based on ‘place’ – micro-level local Just Transition, national, or international approaches.

The operationalisation of quantitative indicators is another challenge. Assigning weighting, compensability and aggregation to indicators allows for a more user-friendly approach but may lead to arbitrariness and oversimplification.¹⁴ The supposed benefits of aggregated approaches are in relation to their reduction of complex and diverse phenomena into a singular metric, allowing for both simplicity in communication and easy benchmarking.¹⁵ Typical examples of aggregated indicators are the ‘Genuine Progress Indicator’, which collapses 26 indicators across well-defined economic, environmental, and social categories

¹² C. Turku, ‘Re-thinking Sustainability Indicators: Local Perspectives of Urban Sustainability’, 56(5) *Journal of Environmental Planning and Management* (2013), <https://doi.org/10.1080/09640568.2012.698984>. See also B. Purvis and A. Genovese, *ibid.*

¹³ B. Purvis and A. Genovese, *ibid.* See also C.E. Nika and others, ‘Validating Circular Performance Indicators: The Interface between Circular Economy and Stakeholders’, 13(16) *Water* (2021), <https://doi.org/10.3390/w13162198>.

¹⁴ T. Luzzati and G. Gucciardi, ‘A Non-simplistic Approach to Composite Indicators and Rankings: an Illustration by Comparing the Sustainability of the EU Countries’, 113 *Ecological Economics* (2015), <http://dx.doi.org/10.1016/j.ecolecon.2015.02.018>; J. Valdés, ‘Arbitrariness in Multidimensional Energy Security Indicators’, 145 *Ecological Economics* (2018), <https://doi.org/10.1016/j.ecolecon.2017.09.002>.

¹⁵ Joint Research Centre-European Commission *Handbook on constructing composite indicators: methodology and user guide* (2008)

into a single metric¹⁶ and the Dow Jones Sustainability Indices which measure environmental, social, and economic factors to rank companies according to their sustainability performance.¹⁷ To overcome these challenges, some suggest using dashboard-based systems, which consist of curated selection of singular indicators, such as the 231 indicators utilised by the UN Sustainable Development Goals (SDGs) or the 26 indicators included in the OECD Green Growth framework.¹⁸

Finally, the implementation of the process itself, especially in a place-based context is complicated by data constraints. Some data sets, e.g. on employment, earnings, and skills, are well standardised across micro and macro levels and are available across a number of years. For other topics, especially where data is needed from surveys, variations in questions asked across the years and inconsistency in data collection present challenges of painting a clear picture. For some indicators, only snapshots of data are available, not allowing the analysis of trends at present.

Many projects engage with data sets on sustainability and societal transition. For example, DG Regio Eurostat Database collects sub-national dataset on a number of categories of potential relevance for assessing vulnerability in relation to Just Resilience in Europe which include demographics, economic accounts, health, environment and energy etc.¹⁹

More specifically on Just Transition, the World Benchmarking Alliance has developed a methodology for assessing Just Transition in companies with 18 Core Social Indicators around human rights, provision and promotion of decent, work and acting ethically²⁰ including specific indicators for Auto, Oil and Gas and Electric Utilities²¹ which builds on or works with 6 Just Transition indicators as follows:

- *Social dialogue and stakeholder engagement*
- *Just transition planning*
- *Creating and providing or supporting access to green and decent jobs*
- *Retaining and re-and/or up-skilling*
- *Social protection and social impact management*
- *Advocacy for policies and regulation*

¹⁶ G. Berik, 'Measuring What Matters and Guiding Policy: An Evaluation of the Genuine Progress Indicator', 159 (1) *International Labour Review* (2020), <https://doi.org/10.1111/ilr.12153>

¹⁷ I. Knoepfel, 'Dow Jones Sustainability Group Index: A Global Benchmark for Corporate Sustainability', 8(1) *Corporate Environmental Strategy* (2001), [https://doi.org/10.1016/S1066-7938\(00\)00089-0](https://doi.org/10.1016/S1066-7938(00)00089-0)

¹⁸ B. Purvis and A. Genovese, *ibid*; P. Verma and A.S. Raghubanshi, 'Urban Sustainability Indicators: Challenges and Opportunities', 93 *Ecological Indicators* (2018), <https://doi.org/10.1016/j.ecolind.2018.05.007>; Inter-Agency and Expert Group on SDG Indicators (IAEG-SDGs) *Resolution Adopted by the General Assembly on Work of the Statistical Commission Pertaining to the 2030 Agenda for Sustainable Development* (2017) (A/RES/71/313); OECD Green Growth Studies, *Green Growth Indicators 2014*.

¹⁹ European Union, *Eurostat Database* (2023).

²⁰ World Benchmarking Alliance *World Benchmarking Alliance Just Transition Methodology* (2021).

²¹ *Ibid*.

Each Just Transition Indicator is scored on a scale of 0 to 2 points based on publicly available information.²² This Just Transition methodology offer a good start for companies to replicate but is more directed at private actors than for assessment of Just Transition at a place-based or regional levels.

2.2 Measuring Just Transition in Scotland

With the Just Transition planning underway, there are increasing calls for clarity on measuring the progress to Just Transition. Just Transition principles under the Climate Change (Scotland) Act 2009 do not have any specific targets attached.

The second Just Transition Commission's new remit "calls for advice on how best to monitor and evaluate Scotland's progress towards a just transition".²³ One of its key messages to the Scottish Government is to "develop and rapidly deploy a robust monitoring and evaluation framework for assessing progress on Just Transition Outcomes".²⁴ Such a framework "should target clear deliverables and annual milestones through to 2045 to drive delivery".²⁵ The Commission recommends that the framework should be determined "by engagement with hard-to-reach groups likely to be significantly impacted, and other key stakeholders",²⁶ with the possibility to adapt and refine over time.

The Commission advised "progress should be accessed in an accurate and timely manner, enabling success by locating areas of risk and helping to prevent unjust outcomes".²⁷

Calls for a clarifying the meaning and indicators for a Just Transition in Scotland also come from the Scottish Parliament. In the inquiry into a Just Transition in Grangemouth, the parliamentary committee recommended that the Government "establish a clear and concise definition of what is meant by just transition" and "include clear and measurable targets for success".²⁸

While the Scottish Government, already has experience in tracking performance across a number of indicators (e.g. under the National Performance Framework),²⁹ the measurement of Just Transition at a place-based, sectoral, and national level is a novel and challenging exercise with limited evidence and international practice.

²² Ibid.

²³ Just Transmission Commission, Making the Future. Initial Report of the 2nd Just Transition Commission (2021), p. 7. See also Letter from Jim Skea (Chair of the Just Transition Commission) to Shona Robison MSP, 'Letter to Deputy First Minister' (8 June 2023).

²⁴ Just Transmission Commission *ibid*, p. 10, 37.

²⁵ Ibid.

²⁶ Ibid.

²⁷ Just Transmission Commission, Making the future. Initial Report of the 2nd Just Transition Commission (2021), p. 5.

²⁸ Sottish Parliament Inquiry into a Just Transition to net zero for Grangemouth area to the Scottish Government (2023) p.2.

²⁹ The National Performance Framework tracks the performance of Scotland's National outcomes over 81 national indicators.

3. *Developing Just Transition indicators for Aberdeen and Aberdeenshire*

As mentioned above, in developing themes and indicators for Just Transition in Aberdeen and Aberdeenshire in this project, we relied on the wider definition of Just Transition focusing on the community as a whole while acknowledging the centrality of workers' rights in transition, particularly in the context of the North East of Scotland. We have worked primarily on city and regional level data, engaging with national data where relevant. In order to develop a place-based approach, we worked closely with a diverse group of relevant organisations in the region to continuously review the research questions, methods, and outputs.

To develop a comprehensive background and, we used the [Rapid Evidence Assessment](#) to determine and assess the evidence on historic and current regional impact of the energy industry in Aberdeen. We have further assessed the existing efforts/project/knowledge on how Just Transition is understood in the region. Finally, we held a knowledge exchange event to co-develop indicators.

In writing the Rapid Evidence Assessment report, we worked with a diverse steering group to develop the appropriate search terms and processes. Close to 5000 sources were screened, with the final selection of 210 sources used for evidence extraction. Published between 1966 and 2022, the sources came from academic sources, third sector organisations, industry, local authorities and governmental reports.

The reviewed evidence identified some regional opportunities and benefits as well as challenges associated with being an oil and gas hub.

Benefits most commonly identified were:

- employment/jobs brought by the industry;
- development of the regional economy;
- higher average earnings;
- improvement in local services and transport link;
- Aberdeen's status as a centre for excellence for the energy industry;
- population growth.

The main challenges identified in the evidence were:

- decline of traditional industries;
- vulnerability to oil price fluctuations;
- pressure on housing and local authorities;
- unequal distribution of benefits;
- removal of regional assistance;
- lack of local control.

These benefits and challenges are considered in more detail in the main body of the report.

We have further identified and reviewed the ongoing/recently completed projects related to Just Transition of communities and workers in Aberdeen and Shire.³⁰ These were: 1) Scottish Government Just Transition/Just Transition Fund for North East and Moray; 2) Platform & Friends of the Earth Scotland, Greenpeace: Offshore Oil and Gas Workers' Views on Industry Conditions and the Energy Transition; and 3) University of Aberdeen/NESCAN/University of Strathclyde, Community Participation in a Just Transition in the North East: Regional Priorities. Since publication, a further report emerged from the World Energy Council.³¹

Based on the analysis of benefits and challenges of Aberdeen and Aberdeenshire connections with the energy industry, as well as the existing work on Just Transition in the region, we have identified four main themes for subsequent analysis, as illustrated in Figure 1.

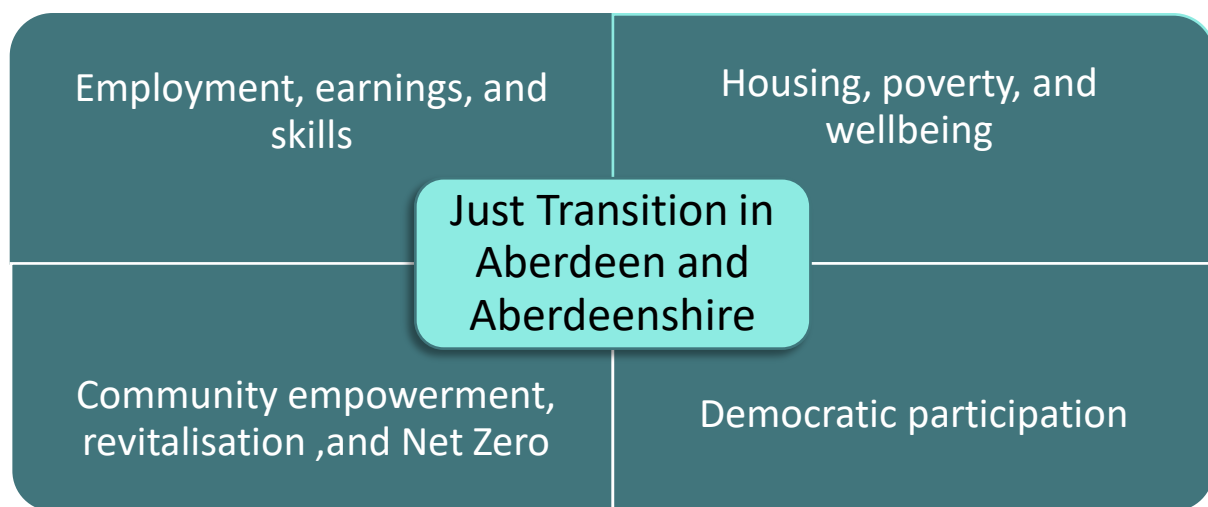


Figure 1: Four themes for measuring Just Transition in Aberdeen and Aberdeenshire

Following the identification of the four themes, the project team held a knowledge exchange event with a diverse stakeholder group in February 2023. The aims of the event were to communicate the Rapid Evidence Assessment report findings, and to co-develop research questions under the four themes for indicator development with a view to define and analyse measurable place-based just transition indicators and scenarios.

The event was attended by 26 representatives from various organisations across Aberdeen City and Shire. These included Aberdeen City and Aberdeenshire councils, Cyrenians, University of Aberdeen, RGU, North East Scotland Climate Action Network (NESCAN), Aberdeen Renewable Energy Group, James Hutton Institute, Grampian Regional Equality Council, RMT, Friends of the Earth Scotland, Net Zero Technology Centre, NHS, SCARF, and

³⁰ We have further engaged with Climate Strategies/SEI project [Oil and Gas Transitions](#) but did not list it here as it takes a wider North Sea/UK perspective.

³¹ World Energy Council, [City Level Clean and Just Energy Transition: A Human-Centred Approach](#) (2023).

Aberdeen Foyer. The diversity of backgrounds and expertise allowed for a rich discussion bringing together perspectives from the region's third sector, industry, and local authorities.

After the Rapid Evidence Assessment report presentation and a Q&A session, attendees were divided into four groups, each led by a facilitator. The groups worked on four themes, rotating to a new theme every 30 minutes. The discussions in the group centred around sharing experience and expertise around the themes, discussing data sources for potential indicators, and identifying questions to raise for the future indicators.

The first group, facilitated by Prof. Keith Bender, discussed the theme of 'Employment and Skills', focusing on employment trends in the energy sector, the need to develop new skills and training opportunities for workers in the transition to a low-carbon economy. They also discussed the importance of protecting workers' rights and ensuring a Just Transition for those who may lose their jobs due to the shift away from oil and gas.

The second group, facilitated by Dr. John Bone, focused on the 'Housing, poverty, and wellbeing' theme. Themes and potentials indicators in this theme included availability and affordability of housing, links between wellbeing, poverty, and food security, fuel poverty in the region, deprivation, and access to green spaces.

The third group, facilitated by Prof. Tavis Potts, discussed 'Democratic participation'. They discussed the need to address environmental injustices, such as the disproportionate impact of climate change on marginalised communities and the challenges of engaging these groups. They also discussed ways to evaluate trust in officials and measure the climate assembly's quality, coverage, and participation. Participants discussed the need for meaningful engagement with local communities in the transition process, including those who may be most affected by the shift away from oil and gas. They also talked about the importance of involving a diverse range of voices in decision-making and ensuring that communities have a say in the future of their region.

The fourth group focused on 'Community empowerment, revitalisation and net zero'. The group, facilitated by Dr. Daria Shapovalova, discussed the connections between the energy transition and community empowerment, including critically analysing community renewables and local economy diversification. They further discussed the challenges of active travel and public transport, particularly in Aberdeenshire. Finally, they considered the greenhouse gas emissions and other environmental indicators in the region.

Based on these discussions, and valuable insights of stakeholders, the project team developed a set of indicators for data collection, which are laid out in the following sections of this report.

Indicators and data for Just Transition in Aberdeen and Aberdeenshire

4. *Jobs, skills and earnings*

Perhaps the most straightforward set of indicators for a Just Transition involve labour market indicators such as jobs and skills. The Rapid Evidence Assessment report highlighted the positive contribution the oil and gas industry historically made to the employment and earnings in the region relying on an increased skill set of the local workforce, and preventing loss of these skilled jobs is high on the agenda for Just Transition.³² The transition will cause certain jobs to disappear while also generating new jobs and opportunities. Skill acquisition and reskilling will be central, however, in making sure that those starting out in or transitioning to low carbon jobs and industries have the correct set of skills to take advantage of new job opportunities. However, just having a job is not the only indicator. For many in the North East, oil and gas related jobs provided relatively high standards of living, and it will be crucial that earnings remain as high as possible, while also helping to address the inequity in income that also was endemic in the North East over the last forty years.

This section will discuss a number of indicators around jobs, skills and income that will be relevant to tracking a Just Transition in the Aberdeen area. Specifically, we will examine the following indicators:

1. Employment patterns
2. Employment related to energy
3. Unemployment
4. Skills
5. Skills and Jobs
6. Earnings

Because of potential sex differences in the indicators, we will also report data decomposing the data by sex when available to examine the existence of any differences.

5. *Equality and wellbeing*

The Rapid Evidence Assessment Report highlighted the lack of research into the impact of the oil and gas industry fluctuations on the wellbeing, housing, and equality in Aberdeen and Aberdeenshire. At the same times, both communities in the region, and the local and national governments place high importance on addressing existing inequalities as part of Just

³² Just Transition Lab, Just Transition for Workers and Communities in Aberdeen and Aberdeenshire: [Rapid Evidence Review](#) (2023) sections 3 and 5.

Transition.³³ It is apparent that the move towards the energy transition, and the turbulence in energy markets, has had a particularly significant impact on Aberdeen, given its position as the “oil capital of Europe”. A number of indicators suggest that a combinations of oil price falls and a more politically sensitive climate in terms of oil exploration have led to a contraction in the industry in recent years that has rendered Aberdeen increasingly vulnerable to general economic uncertainty. With respect to key indicators as to the impact on the city and relevance for a Just Transition in Aberdeen, the following are particularly important and are to be investigated in the report:

1. Housing
2. Fuel poverty
- 3 Deprivation and food insecurity
4. Healthy life expectancy & wellbeing
5. Access to green space in deprived communities

6. *Democratic participation*

The Rapid Evidence Assessment report highlighted the importance communities in Aberdeen and Aberdeenshire place on meaningful participation in local decision-making, especially against the background of the lack of control over how oil and gas were developed, and profits distributed, over decades. The governmental Just Transition principles also feature the need to develop and maintain social consensus through engagement.³⁴

Participation in the process of determining the objectives, direction and the implementation of a just transition in Aberdeen is arguably the least developed of the metrics and indicators. The participatory and empowerment elements of a just transition are strongly reinforced in the policy and academic literature³⁵ and increasingly in civil society declarations concerning transition³⁶. However, despite participation widely recognised as a ‘tier’ of transition, specific indicators that can evaluate the quality and efficacy of place-based deliberative approaches are limited. Arguably, this could be seen as a result of local, community and city-based deliberative processes emerging into mainstream practice, particularly in the third sector and

³³ Just Transition Lab, Just Transition for Workers and Communities in Aberdeen and Aberdeenshire: [Rapid Evidence Review](#) (2023) sections 4 and 5.

³⁴ Just Transition Lab, Just Transition for Workers and Communities in Aberdeen and Aberdeenshire: [Rapid Evidence Review](#) (2023).

³⁵ See for example: R. Bray and R. Ford, Enabling a Just Transition to Net Zero: A Manifesto for Change ([University of Strathclyde Publishing](#), 2022).

³⁶ See Participation as a core complement of a just transition in the North-East of Scotland (source: T. Potts and others, Community Participation in a Just Transition to Net Zero in the North-East of Scotland ([SUII](#), 2022)).

in civil society.³⁷ Deliberative processes such as community and climate assemblies are increasingly in practice, but not necessarily widespread or connected into more formal decision-making frameworks. There are diverse practices emerging around citizen engagement,³⁸ and part of the challenge faced by practitioners is how to effectively understand the contribution at a project scale (*ie* a locality) and at a place based scale (*i.e.* a city or region). The *empowerment* aspect of engagement is further challenging to capture in traditional indicators, and as is increasingly argued, this complex societal issue may be better evaluated by a mix of different methods.³⁹ Fundamentally we connect the notion of *empowerment* to *agency* – the ability of individuals, citizens and communities to determine and shape the direction of a just transition that is fundamentally to their benefit and address their concerns.

Given the challenge and paucity of indicators for participation, we have identified three proxy indicators for assessing place-based participation in a just transition. We also present original data on the development and response to climate assemblies in the North East of Scotland.

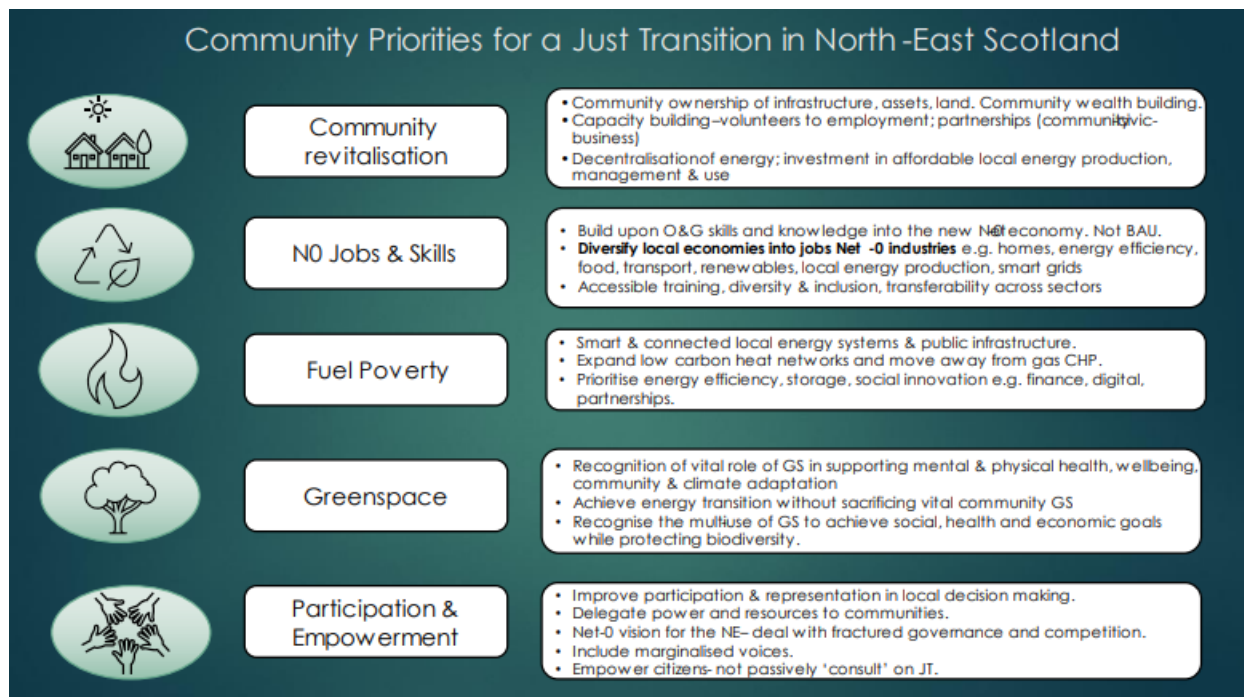


Figure 3: Participation as a core complement of a just transition in the North-East of Scotland (source: T. Potts and others, *Community Participation in a Just Transition to Net Zero in the North-East of Scotland* (SUJL, 2022))

³⁷ The NESCAN [community project map](#) highlights the mix of community climate action activities currently underway in the North East.

³⁸ Community, citizen and climate assemblies, participatory budgeting, education and youth engagement, creative and arts-based approaches and direct action.

³⁹ For example, drawing upon literature in natural capital evaluation, D. Burdon and others argue that social and cultural values can be evaluated using participatory mapping, community voice, visual / arts methods and survey techniques. 'Linking Natural Capital, Benefits and Beneficiaries: The Role of Participatory Mapping and Logic Chains for Community Engagement', 134 *Environmental Science & Policy* (2022), <https://doi.org/10.1016/j.envsci.2022.04.003>.

7. Community empowerment, revitalisation, and Net Zero

Interconnected with other indicators, the theme on community empowerment, revitalisation and Net Zero places communities at the heart of the transition. Despite the wealth of literature on the general role of communities in the energy transition, there is “little evidence on how to cultivate community empowerment in energy transformations”.⁴⁰ The Rapid Evidence Assessment report has explored the lack of local control over how the energy resources have been developed, insufficient flow of profits into the local area, and economy dependent on oil price fluctuations.⁴¹

Community empowerment in the context of energy transition is closely interconnected with democratic participation but includes further steps to develop agency, autonomy, and power-shift (Figure 2 below). For the energy transition to bring a societal transformation, especially in places closely linked to the energy industry, communities need to be empowered to play an active role.⁴² Empowerment can be defined as “the process of an individual, group or community increasing their capacity and contextual power to meet their own goals, leading to their transformative action”.⁴³

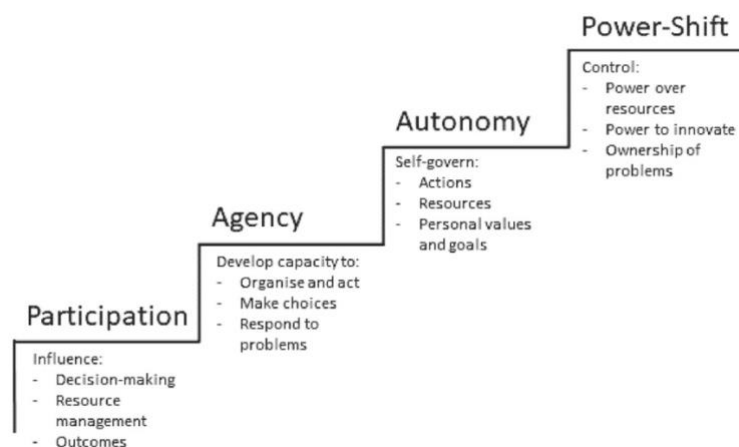


Figure 2: Ladder depiction of outcomes of empowerment (source: Coy and others, 2021).⁴⁴

⁴⁰ D. Coy, S. Malekpour, A. K. Saeri, ‘From Little Things, Big Things Grow: Facilitating Community Empowerment in the Energy Transformation’, 84 *Energy Research & Social Science* (2022), <https://doi.org/10.1016/j.erss.2021.102353>.

⁴¹ Just Transition Lab, Just Transition for Workers and Communities in Aberdeen and Aberdeenshire: *Rapid Evidence Review* (2023) section 4.

⁴² D. Coy, S. Malekpour, A. K. Saeri, ‘From Little Things, Big Things Grow: Facilitating Community Empowerment in the Energy Transformation’, 84 *Energy Research & Social Science* (2022), <https://doi.org/10.1016/j.erss.2021.102353>.

⁴³ D. Coy and others, ‘Rethinking Community Empowerment in the Energy Transformation: A Critical Review of the Definitions, Drivers and Outcomes’, 72 *Energy Research & Social Science* (2021), <https://doi.org/10.1016/j.erss.2020.101871>.

⁴⁴ D. Coy and others, ‘Rethinking Community Empowerment in the Energy Transformation: A Critical Review of the Definitions, Drivers and Outcomes’, *ibid*.

Evaluating community empowerment requires a place-based and critical approaches. To this end, any indicators need to be seen in their specific context. For example, it could be reasonable to assume that the more community-owned renewable energy is – the more empowered the community is, and the more progress is made towards Just Transition. However, both literature, and discussions during our knowledge exchange event on Aberdeen and Aberdeenshire specifically, indicate challenges in such assessments. Do locally owned energy projects always empower communities or are the relevant community members already in position of power and privilege?⁴⁵

In Scotland, community empowerment is high on the political agenda. In 2015, the Community Empowerment (Scotland) Act was adopted “to empower community bodies through the ownership or control of land and buildings, and by strengthening their voices in decisions about public services”.⁴⁶

Finally, in discussion of Net zero and other environmental targets, there is a clear rationale for considering only emissions that occurred in the Aberdeen City and Aberdeenshire. Emissions from the oil and gas industry in the North Sea are not counted towards the local authority reporting and are not included under the indicator for this section. Nevertheless, it is important to note that emissions from the oil and gas industry in the UK are significant and their mitigation is imperative for the achievement of the legal climate change targets nation-wide.

Based on the findings of the Rapid Evidence Assessment report and the knowledge exchange event, for this theme, five indicators are explored:

1. Community ownership,
2. Community-owned energy
3. Diverse economy
4. Sustainable and active travel
5. Progress towards Net Zero.

A combination of quantitative and qualitative approaches is taken in this section as less data is available on these indicators and context is required for its interpretation.

⁴⁵ J. Radtke ‘A Closer Look Inside Collaborative Action: Civic Engagement and Participation in Community Energy Initiatives’, 8(3) *People, Place and Policy* (2014), <https://doi.org/10.3351/ppp.0008.0003.0008>; A. Shreuer, ‘The Establishment of Citizen Power Plants in Austria: A Process of Empowerment?’, 13 *Energy Research & Social Science* (2016), <https://doi.org/10.1016/j.erss.2015.12.003>.

⁴⁶ Scottish Government, Community Empowerment Act: A Summary (2017).