

# ENVIRONMENTAL RESEARCH HEALTH



## LETTER

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## From just *transitions* to just *transformations*; observations from Aotearoa New Zealand in addressing the human wellbeing impacts of climate change

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### Abstract

This paper interrogates the utility of a just transition framework for climate change and human wellbeing in the context of Aotearoa New Zealand. Drawing on historical conceptualisations and applications of just transitions, their limitations and potential, we argue that an expansive and anti-reductionist conceptualisation of the just transition is best suited to address complex and inter-sectoral issues across time and space. Expansive just transitions are characterised by four features; relationality, systems-thinking, place-based and inter-generational approaches, where emancipation is held as the overarching objective. While we argue in favour of an expansive and anti-reductionist just transition framework being employed in the face of complex issues, such as the human wellbeing impacts of climate change, we introduce the concept of a just *transformation*: achieving true equity and justice in the face of climate change requires a *transformative* approach, situated outside of the confines of the hegemonic economic system and linear transitions. Transformations and not transitions are required for the health and wellbeing outcomes desired amidst threats of climate change.

## 1. Introduction

‘Carefully balancing our [just] transition to a low-emissions society requires a considered approach that does not create or exacerbate social inequities. The transition can be economically affordable and socially acceptable if it is well-paced, planned together with communities, and well-signalled. Society will benefit from *improved health and wellbeing*.’

He Pou a Rangi | Climate Change Commission (2021, p 140, *emphasis added*)

Exemplified in the position of He Pou a Rangi 2021, the Climate Change Commission in Aotearoa New Zealand (A/NZ), there is growing acknowledgement of the utility of just transitions in circumstances of complex, intersectoral issues, including the impacts of climate change on human wellbeing. This is not a modern or radical interpretation. In its original conception, just transitions were situated within environmental justice and sought to address *both* human and ecological health concerns arising from impending job cuts for workers in extractives industries (Hampton 2015, McCauley and Heffron 2018). Overtime, the definition has dichotomised. The original definition, representing an expansive (wide) conceptualisation of just transitions, which has also been applied to just transitions in the face of anti-microbial resistance (AMR), is ontologically distinct from a reductionist (narrow) definition, prioritising socio-technical solutions to the green-energy transition over the wider socio-cultural context (Healy and Barry 2017, McCauley and Heffron 2018).

In traversing the history, potential and limitations of just transitions, this paper makes two contributions. Firstly, we identify four characteristics of expansive just transitions—relational, systems-thinking, place-based, and intergenerational—which qualify them as being more suitable to address complex intersectoral issues. These lend themselves to the transition having a more contextualised understanding of reparative justice and epistemic inclusivity. Secondly, we identify two limitations, linearity and (non-)disruptiveness, and leverage these to propose the just transformation as an alternative to just transitions. We argue that just transformations are better placed to achieve the emancipation that just transitions were originally trusted with. A/NZ's approach to just transitions serves as a case study.

## 2. Just transitions: history and context

The history of just transitions, and the conditions culminating in the emergence of the concept by labour activists in the late 20th Century have been well documented (Hampton 2015, Wang and Lo 2021). In brief, Mazzocchi, an Oil, Chemical and Atomic Workers Collective official, coined the term in the late 1960s as a procedural solution to the prohibition of toxic chemicals (Hampton 2015)<sup>3</sup>. Within thirty years, just transitions have been assumed into the praxis of trade unions across the world as the promised pathway for procedural, distributive and restorative justice for workers in the face of growing climate concern (Hampton 2015, McCauley and Heffron 2018). In the absence of a universal definition, the original conceptualisation of just transitions has been significantly iterated by governments, non-governmental organisations and civil society alike (Narayan 2023). In the process of, they have also been applied to situations outside of climate and environmental justice, including AMR and automation (ITUC 2005, UNFCCC 2015, Varadan *et al* 2024).

Scholars (McCauley and Heffron 2018, Healy and Barry 2017) argue that while the definition of just transitions has evolved, it 'has the possibility to transcend its original strategic purpose' and adopt a more expansive, intersectoral approach. We take a different view. Although environmental justice (of which climate justice is an offshoot) has developed since the 1990s, Mazzocchi's conceptualisation, though not explicitly invoking environmental justice, operated within that context (McCauley and Heffron 2018). While we agree this may not be a complete return, it is less of a transcendence than suggested.

A Just Transitions Unit was set up within the New Zealand Government in 2018, with a focus on regional community partnerships in Taranaki and Southland where significant economic transitions away from carbon-intensive industries were planned<sup>4</sup>. These had four objectives: (1) build an understanding of potential pathways to transform the economy to low emissions; (2) identify, create and support new opportunities, new jobs, new skills and new investments that will emerge from the transition; (3) better understand how the transitions might impact different communities, regions or sectors; and (4) make choices about how to manage these impacts in a just and inclusive way (Wellbeing Economy Alliance *n.d.*). The Taranaki 2050 Roadmap (the Roadmap), the region's just transition strategy which we reference throughout this article, was developed within this national framework (Venture Taranaki Te Puna Umanga 2019).

The expansive versus reductionist distinction has persisted despite these iterations. Expansive definitions are those that embody the four characteristics we propose. We have chosen a selection of these definitions to highlight in table 1.

## 3. Applying the (expansive) just transition to wellbeing and climate change

The impacts to human wellbeing from climate change have been well documented in literature for the past 30 years (Muhia *et al* 2024). Even though the climate change-wellbeing discourse emerged after the just transition was proposed, it falls within the wider scope of ecological health that Mazzocchi imagined (Hampton 2015). The human wellbeing impacts arising from climate change are mediated through changes to the natural environment and fall into direct, for example heat-related injuries and death, and indirect categories, such as climate-anxiety and mental stress (Romanello *et al* 2023). Susceptibility to the health impacts of climate change is not distributed equally; certain populations and regions across the globe are more vulnerable to the wellbeing impacts of climate change than others (Calvin *et al* 2023, Romanello *et al* 2023). Populations in the Global South, Indigenous people, women, children, older people and those already experiencing disadvantage (social, economic and/or health) will experience disproportionate impacts to wellbeing as a result of climate change (Calvin *et al* 2023). As Jones (2019, p 73) argues, 'this is true not only for the impacts of climate change itself, but also for societal responses to climate change, which, in seeking to

<sup>3</sup> Concern about the toxic chemicals related to both the health of the workers involved in their production and extraction as well as the environment, where the chemicals would be used.

<sup>4</sup> The Unit has since been disestablished (MBIE 2024).

**Table 1.** How are just transitions defined? What is their scope? What actors are involved?.

Source	Definition/conceptualisation	Scope	Elements of justice	Actors
Tony Mazzocchi, Oil, Chemical and Atomic Workers Collective (OCAW) [original definition]	‘Mazzocchi’s jarring solution was ‘for society to pay workers not to make poisons’, because ‘conversion had its limits’. Mazzocchi took inspiration from his own experience to find a solution for workers displaced from their jobs in the name of the environment.’ (Leopold 2007, cited by, Hampton 2005, p 68).	Wide	Procedural Restorative	Employers Workers Government
Paris Agreement, United Nations Framework Convention on Climate Change	‘Taking into account the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities.’ (UNFCCC 2015)	Narrow		Workers Governments Employers
International Trade Union Confederation	‘A Just Transition secures the future and livelihoods of workers and their communities in the transition to a low-carbon economy. It is based on social dialogue between workers and their unions, employers, and government, and consultation with communities and civil society. A plan for Just Transition provides and guarantees better and decent jobs, social protection, more training opportunities and greater job security for all workers affected by global warming and climate change policies.’ (ITUC, 2005)	Wide	Restorative Procedural	Workers Trade unions Employers Government Community
Just Transitions for Antimicrobial Resistance (AMR) Working Group	‘Applying a just transition approach to antimicrobial resistance introduces a cross-disciplinary framework, rendering visible the uneven impacts of antimicrobial resistance action and inaction, ensuring that policies and interventions mitigate the effects of drug resistance while also rendering inequalities and trade-offs arising across sectors, societies, and communities while differing interests and priorities in the use of, and access to, antimicrobials.’ (Varadan <i>et al</i> 2024, p. 2766)	Wide	Distributive Restorative Procedural	Governments Policy makers International organisations Civil Society Organisations
Just Transition for Taranaki	‘A just transition is about managing these [negative] effects to continue to build a fair and inclusive New Zealand. For Taranaki it means ensuring we keep what is great about our region. A transition is likely necessary, including system-wide behavioural and institutional change to ensure more parity in outcomes for people. Co-creation with communities, iwi, local and central government, businesses, educators, unions and workers is the cornerstone of the approach we are taking in Taranaki. (Venture Taranaki Te Puna Umanga, 2019, p 1)	Wide	Procedural Restorative	Government Trade unions Iwi (tribes) Community Educators Businesses
E tū Union	‘Members have signed a ‘Just Transition’ agreement with the company, which means that they will have access to a range of support to assist them in finding other employment, redeploying, or upskilling... We believe this will require long-term funding options and that Government involvement is essential.’ (E tū, n.d.)	Narrow	Procedural Distributive	Employers Workers Government

avert the deepening crisis, may adversely affect already disadvantaged populations'. While A/NZ is not expected to bear the greatest burden of climate change, these characteristics persist nonetheless (Jones 2019).

As Mazzocchi imagined, just transitions, from an expansive ontology, provide a viable avenue to address a multiplicity of co-existing and related inequities. The four characteristics of expansive just transitions will be respectively addressed.

### 3.1. Relationality

Relationality embodies two meanings: (1) *where* and *how* agency is held and distributed, and; (2) the uneven starting point that just transitions seek to reconcile. For just transitions to be successful, recognition of, leading to integrated and authentic participation from multiple stakeholders and communities is required (Wang and Lo 2021). Whilst just transitions often default to tripartite participation from trade unions/workers, employers and governments, a more participatory approach is required (Abram *et al* 2022). This is not only important for procedural justice, but wide community engagement facilitates accurate scoping of the complex and intersectoral issues that just transition frameworks are applied to. Contest and dissent across participants is to be welcomed. Importantly, engagement should reflect the composition of the community/ies for which the transition concerns and not default to bureaucratic representatives. As outlined in table 1, in Taranaki this included representation from business, education, community organisations, iwi (tribes), trade unions and workers, in addition to government officials (Venture Taranaki Te Puna Umanga 2019).

Secondly, one of the defining features of just transitions is that they are conducive to situations where the starting point of the communities is uneven. Such communities bring a wide range of perspectives of the issue(s) and solution(s), creating a situation ripe for a wide range of trade-offs and co-benefits to emerge. We contend that a defining characteristic of expansive just transitions is that they recognise the fundamental connection(s) between social and environmental justice. This is not to say that energy transitions, which have become synonymous with a reductionist view of just transitions, are not relational, but have tended to follow linear reform trajectories, leaving 'little room for conceptualising the inherently plural and multi-scalar nature of energy systems change' (Bouzarovski 2022, p 1004, Williams and Doyon 2019). Not specific to A/NZ (although highly relevant given A/NZ's agricultural economy), the application of just transitions to AMR, where communities *already* (pre-transition) have varied access to, use and perspective of anti-biotics, antimicrobial resistance as well as regulatory practices, warrants a 'plural and multi-scalar' transition approach (Bouzarovski 2022, p 1004, Varadan *et al* 2024). Whilst Varadan *et al* (2024, p 2767) suggests 'transparent, inclusive and equitable' processes, policies, and interventions as mitigating factors to these challenges, they are necessary but insufficient in ensuring that the just transition does not catalyse new inequities. This highlights the broader issue—without addressing the inherent relational dislocation between communities, systems, and scales, any transition risks reinforcing existing, or creating new, injustices.

### 3.2. Systems-thinking

Within an expansive ontological framing, just transitions are well situated to provide an integrated, whole-system perspective that can help in identifying solutions to address systemic environmental and socio-economic concerns. Systems-thinking focuses on understanding the components and structures of systems in order to ascertain how and where changes, from small modifications to total transformations, are best place across time and space (Voulvoulis *et al* 2022). Expansive just transitions embody an interdisciplinary perspective, because by design they seek to address transitions across multiple scales and planes which in turn cut across intersecting systems—health, education, energy, financial, governance and so forth. Whilst this leans away from the ease of pursuing 'quick fixes', systems-thinking affords just transitions protection from being lulled into chasing silver bullets, in the form of socio-technical solutions to the wellbeing impacts of climate change (Voulvoulis *et al* 2022). By offering a common foundation for interdisciplinary approaches, systems-thinking also promotes the creation of generalizable knowledge that bridges disciplinary boundaries and fosters a shared space for collective understanding (Barile and Saviano 2021). However, it is important that these conditions for knowledge generation facilitate epistemic justice, such as the reform of hegemonic knowledge boundaries and the centrality of colonial ways of knowing and being (Ghosh *et al* 2021). To see climate change and wellbeing as inherently connected, and to address the health emergency that climate change is responsible for, requires an approach that understands the 'dynamic relationships and interconnections between different systems and system elements' (Abram *et al* 2022, p 1037, Romanello *et al* 2023). As Jones *et al* (2022, p 2) argues, climate change is a 'crisis of relationality,' where complex systems underpinning humanity have been dislocated from one another and viewed from, and within, silos.

### 3.3. Place-based

As discussed above, the benefit of an expansive view of just transitions is that it invites intersectoral approaches across systems (i.e. climate and wellbeing), which occupy different respective place(s) in society, in the pursuit of procedural and restorative justice. Place is not simply a product of the geographical dimensions of space, but reflects the value or attachment assigned to environments (Shaw *et al* 2002, Massey 2005). Place-based approaches ensure that just transitions are ‘responsive to lived experience, local context and shifting realities’, which extends to local knowledge generation (Abram *et al* 2022, p 1038). Whilst there are favourable examples of the pursuit of procedural and epistemic justice in the Roadmap, including the departure from tripartism—which ‘is insufficient to ensure all voices are at the table’ (E tū 2022, p 24)—reflected in the collective desire of participants for the generation and inclusion of Indigenous knowledge, specifically ‘the Māori worldview’ (Venture Taranaki Te Puna Umanga 2019, p 3), there is a deeply nationalistic agenda that dismisses the inherent connection between the transition to green energy production in communities in Taranaki, and the exploitation of resources necessary for such generation from countries in the Global South (Ajl 2021). This is not limited to the Taranaki just transition but is reflective of approaches across the Global North which systematically repress opportunities for visible Global North-South solidarity at the transition’s epicentre (Ajl 2021). The pursuit of justice within the *just* transition must facilitate local knowledge generation, and place-based solutions to systemic issues, without adversely affecting already disadvantaged populations, irrespective of their visibility or power at the site of transition.

### 3.4. Promotes inter-generational approaches

Synonymous with the meaning of transition is the movement across time. As is the case with the universality of just transitions across place, there is plasticity in how time is also conceptualised. We share the view of White and Leining (2021) that a successful application of a just transition requires a clear definition of time and place. We appreciate that time is a luxury that many communities cannot enjoy during a climate-wellbeing crisis. However, just transitions provide an opportunity for intergenerational thinking, looking to instances of historical, current and future harm. An expansive and intergenerational view of time is consistent with ‘an understanding of climate change as a manifestation of underlying processes that extend across centuries or even millennia’, including beyond the Anthropocene (Jones *et al* 2024, p 4). An intergenerational view of time also creates possibilities for reparative and restorative justice. Intergenerational thinking is not only about our relationship with the future, but it also rests on our relationship with the past. Just transitions invite opportunities to repair historical wrongs (including across place), whose affects are still felt and perpetuated today. In looking across time (forwards and backwards), an intergenerational view does not excuse attempts to delay decisions, nor precludes opportunities for short-term solutions (not to be confused for hasty decision making) but it recognises that the overarching pursuit of justice must conceptualise time as expansive and relational.

## 4. Just transformations

‘A transformative approach further recognises that the Just Transition is not a passage to a predefined future, but a set of continuously evolving process that must be responsive to diverse forms of vulnerabilities and the relational practices that condition them.’

Abram *et al* (2022, p 1038).

Through an expansive ontology, just transitions are more effective and *just* when applied to complex, intersectoral challenges including the human wellbeing impacts of climate change. However, if the original emancipatory purpose of the just transition is to be honoured, the limitations of the approach, even from an expansive ontology, require scrutiny. Critical scholars have claimed that the current just transition framework can only go *so far*, and a mere *transition* is inadequate (Hampton 2015, Murphy 2017, Abram *et al* 2022). Whilst transitions and transformations, in some contexts, are employed interchangeably in support of structural change, Hölscher *et al* (2018) claim that represented in the literature with different foci and are therefore neither interchangeable nor mutually exclusive. Notwithstanding this view, we respond to two important limitations, linearity and (non-)disruptiveness, to propose *just transformation*, as an alternative framework in pursuit of the emancipatory purpose.

Linearity and (non-)disruptiveness are vital considerations. Turning to the meaning of ‘transition’, even when qualified by ‘just’, it infers the shift from one known state to another (Abram *et al* 2022). It is arguable that this was appropriate in the original use of the term, given that the end point (e.g. job security and safety for workers) was clearer. However, as the term is now being applied to issues where the end goal is not so clearly fixed, for example AMR and climate change, the meaning attached to ‘transitions’ runs the risk of setting arbitrary end points that will not ensure justice for all, even when achieved. Just transformations, by

comparison, are ‘not a passage to a predefined future, but a set of continuously evolving processes that must be responsive to diverse forms of vulnerabilities’, which extends, in this case to wellbeing (Abram *et al* 2022 p 1038).

Second, a core objective of the just transition, exemplified through the focus on socio-technical solutions, is to minimise the potential for disruption (Eckersley 2021). Whilst this is often framed as a benefit of just transitions, or alternatively is positively framed as ‘disruptive innovation’ (Kivimaa *et al* 2021), it reflects the shallow depth that transitions are willing to travel (Eckersley 2021). For example, in independent research conducted by E tū Union of workers views of just transitions in Taranaki, workers shared that the just transition should take a wide focus, beyond the affected workers themselves, and include radical changes to social care and welfare systems (E tū 2022). Similarly, in the Roadmap, impacts to human wellbeing are mentioned, from access to health care to mental-health impacts associated with dislocation and identity loss, and the interconnections between health and economic wellbeing (Venture Taranaki Te Puna Umanga 2019, p 24). However, as the Roadmap goes on to admit, because of political inertia and fear of disruption (framed as ‘alignment with government work programmes and initiatives’ and ‘other important regional documents’ (Venture Taranaki Te Puna Umanga 2019, p 4), the disruptive potential of the just transition was suppressed.

By way of contrast, just transformations do not aim for minimal disruption (Eckersley 2021). Instead, they present an intentional opportunity to re-imagine, redesign and reconstruct, beyond the architecture of the underpinning hegemonic economic systems (Linner and Wibeck 2019, Abram *et al* 2022). Whilst we have argued that the pursuit of procedural, distributive, restorative and epistemic justice are possible within an expansive interpretation of just transitions, just transformations secure a deeper, systemic shift that not only addresses the immediate needs and fairness in the transition process but also challenges the structures of the underlying social, economic, and political systems that perpetuate inequity and oppression. Just transformations go beyond incremental change, aiming for a fundamental reimagining of power relationships.

## 5. Conclusion

This article has explored the potential and limitations of the just transition framework to address the interwoven challenges of climate change and human wellbeing. By differentiating expansive from reductionist just transitions, which embody four characteristics (relationality, systems-thinking, place-based and intergenerational) just transitions foster a deeper recognition of procedural, distributive, reparative and epistemic justice. However, we caution the wholesale acceptance of the just transition approach with reference to two limitations, linearity and (non-)disruptiveness, to then propose the just transformation as a favourable alternative. We contend that just transformations offer greater utility in fostering genuine emancipation in the face of oppressive intersectoral issues—an aim that was originally ascribed to just transitions—drawing on observations from A/NZ’s approach to just transitions and the human wellbeing impacts that climate change is responsible for. If we are to have any success in addressing the human wellbeing impacts of climate change, more radical and transformative approaches are necessary.

## Data availability statement

No new data were created or analysed in this study.

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