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Just Transitions Beyond Silos: Toward Inclusive and Ethical Governance

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Just Transitions Beyond Silos

Toward Inclusive and Ethical Governance

Grounding Just Transitions Research and Governance¹

Policymakers worldwide have launched diverse just transition initiatives to mitigate socioeconomic and environmental upheavals of societal shifts, such as the transitions from fossil fuel dependency to post-fossil circular economy approaches. This is not unexpected, given that the impacts of climate change, geopolitical tensions and globalised conflicts are increasingly escalating, and are demanding collaborative, coordinated, just responses and ‘alternative’ pathways that include a rethinking of role and place of human societies beyond ideas of development and modernity projects. It is imperative that Just Transitions are grounded in and contextualised through empirical realities and real-world examples, acknowledging that social and ecological Zwänge (compulsory constraints) are [key determinants of political action](#).

Just Transition frameworks, originally rooted in alliances between labour and environmental justice movements, have evolved into the overarching paradigm that seeks to integrate diverse climate action with social, economic, and environmental justice. Despite different notions², the concept emphasises shifting away from current patterns of production, consumption, and societal development, stressing also the ethical imperative to create inclusive and equitable pathways forward. However, **how to balance ecological sustainability and social equity** remains unresolved, with unclear implications for local communities and individuals.

Against this backdrop, the *European Center of Just Transition Research and Impact-Driven Transfer* (JTC) embarked on a fruitful collaboration with Durham University’s *Centre for Sustainable Development Law and Policy* (CSDLP) and its [JusTNOW – Just Transitions to a Net Zero World](#) research programme.

¹ I would like to express my sincere gratitude to my esteemed colleagues at JTC for their valuable feedback, particularly to Stefan Knauss and Timm Sureau for their thoughtful reviews of the earlier versions of this paper.

² Ranging from a labour-oriented concept, an integrated framework for justice, a theory of socio-technical transition, a governance strategy to public perception. (Xinxin Wang and Kevin Lo, 2021 ‘Just transition: A conceptual review’)

This collaboration emerged from a mutual understanding that achieving ecosocial transitions requires **also an equitable, inclusive legal and governance architecture**.

Unresolved is also the question of **how to address urgency and complexity of transition challenges** such as balancing technological innovation with ecosocial justice; ensuring that ethical frameworks prevent resource exploitation; and designing inclusive climate policies that address historical inequalities and power asymmetries, while also fostering global cooperation.

To realise this vision of justice, we must **rethink research approaches and methodologies structurally, to address the multiplicity and complexity of transitions and ensure inclusivity**. Even though just transition research is inherently interdisciplinary, spanning economic, legal, political, social, environmental, and natural and material science domains, many JT initiatives at different governance levels often lack the interdisciplinary rigour needed to address the interconnected challenges of equity, governance, and sustainability.

This policy paper outlines pathways to adjust research and governance approaches. Drawing on insights from the JTC-CSDLP interdisciplinary [workshop](#) on recalibrating research methodologies for [ecosocial transformations](#), it addresses key questions that we have identified for JT research, which policymakers also need to consider when designing JT policies:

- How can ethical frameworks prevent resource exploitation while addressing historical injustices and power asymmetries?
- How can technological innovation be aligned with ecosocial notions of justice?

This Policy Paper argues that these questions can only be answered by holistic, context-sensitive frameworks that balance urgency with equity, technological innovation with ethical safeguards, and global cooperation with local participation.

Beyond Disciplinary Silos in Research and Policymaking

The workshop highlighted that "traditional" academic silos can only very limited address the multifaceted nature of just transitions. For example, natural scientists and engineers often focus on technical decarbonisation solutions, while economists focus on model market-driven transitions, creating blind spots in policy design. Siloed approaches – such as data-driven machine learning models that prioritise efficiency over equity, or legal analyses detached from sociolegal realities – have been shown to perpetuate top-down governance and exclusionary knowledge practices.

Those **divides create blind spots and path dependencies: legal frameworks and policies may fail to address lived experiences, unintended consequences of regulation and different forms of resistance** to, for example, climate policies or energy projects. Similarly, techno-economic models might ignore the sociocultural significance of fossil fuel-dependent livelihoods, as seen in the tension between rapid defossilisation and equitable outcomes. Renewable energy projects, while framed as "green" solutions, can displace marginalised communities or exacerbate existing inequalities. A global rush for natural minerals such as lithium, critical for electric vehicle batteries, has not only sparked land tenure conflicts but also environmental degradation within and across regions. Such examples highlight the need for interdisciplinarity that also examines the political economy of resource extraction, and center marginalised voices in knowledge production.

To mitigate the effects of silo thinking, academia and political practice alike must search for ways to integrate legal, political, environmental, economic, and social science perspectives in JT issues. 'Actionable' knowledge requires to reconcile top-down governance norms with bottom-up community needs. This ensures transitions regulations are both scientifically robust and socially legitimate.

Cross-Cutting Themes for Future Research and Policy

Several cross-cutting themes can be identified to inform just transition research and policy.

Legal Pluralism and Just Globalisation

A confusing number of overlapping legal frames and governance constellations shape transitions, with actors ranging from policymakers and corporations to local communities and scholars. This plurality shaped by diverse actors with distinct sources of legitimacy needs to be taken as starting point. Why? Because legal pluralism generates diverse (often competing) notions of justice, law and order, and fluctuating governance arrangements.

Accordingly, emissions regulations or clean energy law must be contextualised within specific political power structures, economic interests, incentives, and community needs in order to mitigate inequalities and potential resistance.

The harmonising and fragmenting forces of globalisation complicate the legal pluralist condition. This is evident in the uneven globalised just transition law and governance, which are often created, legitimised or controlled by democratic procedures only to a very limited extent. We are witnessing both an increase in regulations and an acceleration of diffusion of law within national boundaries and in transnational spaces. The hybridisation of governance, transnationalisation and regionalisation of TJ regulations necessitates policies to critically engage with democracy within value pluralism.

Transregional approaches to JT research and regulation are therefore suggested to capture the interconnectedness of transition regulation dynamics. For example, [Katrin Seidel and Timm Sureau's](#) work on in this context shows that policies and legal frameworks cannot be created in isolation. They must be created in-context, including political and historical power dynamics, economic interests as well as community needs.

In-context research, such as ethnographic research, can help ground policy in legal realities and lived experiences. For example, Amy Walker's work revealed the tensions between state-led decarbonisation plans and local livelihoods, highlighting the importance of mapping social networks and understanding how transitions are perceived by affected populations. This perspective can enrich policy design by connecting public policies with the lived realities and can also foster trust between institutions and communities.

In a nutshell, a pluralist approach to JT requires contextualised thinking with tensions. It requires to consider normative tensions between interacting legal orders but also across worldviews and knowledge systems.

For example, national climate protection laws that often translate regional or international JT frameworks and policies into specific transition contexts may clash with community rights and also property rules governing land uses, as seen in conflicts over wind farm projects. Governance structures must therefore navigate the interplay between local norms and practices, national law, and regional and international climate agreements to ensure transition processes that balance ecological goals with social acceptance: public legitimacy matters.

Knowledge Diversity and Inclusion

Knowledge diversity and inclusion are prerequisites for democratising transformative transitions. Sociocultural responsive methodologies, including gender-sensitive and local and Indigenous knowledge systems are essential to center marginalised voices in the design of transition pathways. Angelia Wang's research on cultural protection in transitions argued for expanding JT agendas beyond economic and environmental metrics to include issues of cultural heritage and intergenerational equity.

Bilal Bilal's quantitative analysis of CO₂ emissions underscored the disproportionate impact of pollution on low-income communities, reinforcing the link between environmental harm and systemic inequality.

Thus, energy transition policies must align with social justice principles, asserting that equity is essential to ensure inclusive, fair and participatory transitions and to enable behavioural changes. This means that a pluralist definition of "just" transitions must be grounded in genuine needs-based approaches, transparency, and respect for privacy, 'cognitive autonomy'³, and 'free' consent.

Conflict, Ethics, Reflexivity and Cooperation

The integration of normative conflict, ethics and reflexivity is critical to JT research. Scholars and policymakers alike must navigate competing values – such as growth versus sustainability or individual versus collective rights – while maintaining self-awareness to avoid reinforcing existing power imbalances. Simona Capisani's philosophical exploration of the "right to liveable space" proposed an ethical framework for addressing, for example, climate mobility in a principled way. This highlights that justice requires not only the redistribution of resources but also recognition of diverse worldviews: procedural justice matters.

Stefan Knauß suggested modifying Ethical Value Analysis to focus on "principles" rather than "values" with recognising sustainability as a normative, conflictive principle encompassing environmental, economic, and social dimensions to address concrete trade-offs, such as the conflict between industrial growth and ecosystem preservation. He stressed that transformative learning principles can help to design legal frameworks that align environmental goals with social equity, ensuring that no community bears a disproportionate burden of transition costs.

Digitalisation's role in transitions also requires scrutiny to ensure that innovations amplify rather than displace human agency. Nelly Bencomo's research on AI-assisted transitions highlighted risks of algorithmic bias in climate policymaking. For instance, machine learning models used to optimise energy grids often rely on datasets that exclude informal economies or Indigenous land-use practices. Co-designing AI tools with affected communities can, for example, democratise innovation and reflect different knowledge traditions. Similarly, a human-centred approach to AI could be a step forward. Also, Ghulam Mustafa Kamran argues for AI systems that augment rather than displace human agency, designed with transparency, equity, and respect for autonomy: A critical assessment of AI-supported transition frameworks is needed to ensure just transitions are guided by both planet-centred and human-centred approaches.

Finally, the need for international cooperation based on climate equity, with policy coherence across different scales is vital to prevent the leakage of environmental harms or social costs as quantitative analyses of CO₂ emissions and multilateral investment agreements revealed. Chiara Gemoll's comparative legal analysis of investment agreements highlighted, for example, how legal frameworks can either enable or hinder just transitions, depending on their alignment with social justice principles.

Pathways for Just Transitions Research and Governance

Building on these insights, the workshop mapped priority questions and action steps.

³ Coming from developmental psychology, 'cognitive autonomy' refers to an individual's ability to review one's thinking (evaluative thinking) for decision-making, using own beliefs, values, and knowledges.

Navigating multiplicity of just transition concepts

The contested nature of just transitions raises critical questions about the meaning of 'justice' for human and non-human life, and how multiple knowledge systems can reshape JT frameworks. For example, how can transitions respect the rights of ecosystems themselves, as recognised in the rights of nature debate? **What kind of knowledges do we want to produce and utilise for JT?**

Integrating intersectionality and global collaboration in transitions

Intersectionality remains central to just transitions. Addressing historical inequities and path-dependencies in, for example, climate and energy governance requires integrating class, gender, and sociocultural dimensions, and colonial histories of access to un/just outcomes into research and policy. For example, industry transitions demand not only technical solutions but also an understanding of how labour rights and environmental justice intersect.

Genuine global cooperation is equally vital: high-emission countries must align energy transition policies with social justice principles, while low-income nations require support and compensation to build legal and technical capacity for inclusive transitions. International agreements must prioritise climate equity, ensuring that historically marginalised settings and regions are not 'left behind' in the strive for a "net-zero world".

Negotiating transregional governance

Interconnected (just) transformations and regulations requires addressing inherent normative tensions between top-down JT governance mechanisms (e.g. international climate agreements) and bottom-up initiatives (e.g. community-led projects).

How JTs principles inform law reforms and technological developments to mitigate tensions, as well as how legal systems might adapt to pluralistic governance contexts need further exploration.

Also, the role of machine learning in participatory policymaking and the prioritisation of dignity and autonomy over efficiency align with the broader demand for 'planet-centered' governance, recognising the human-ecological interdependence.

Conclusion

The paths to *just transitions* require reimagining **how knowledge is produced and applied**. By breaking down silo thinking and embracing methodological plurality, researchers and policymakers can co-create inclusive, adaptive frameworks that prioritise equity alongside sustainability. Our workshop demonstrated that climate action must be matched by democratic, reflexive governance rooted in our ability to listen, adapt, learn and act collectively.

Legal pluralism as a fact makes translation across perspectives and issues critical to the search for integrative frameworks that balance inductive and deductive approaches while reflecting on their legitimacy and limitations.

Recommendations

These recommendations are particularly relevant for national and EU-level policy design, research funders, and transnational governance bodies:

- 1. Building interdisciplinary research frameworks:** To address the multiplicity of entangled transitions, policymakers need to foster interdisciplinary cooperation. Making transitions 'just' requires long-term establishment of trans-regional JT knowledge networks beyond Europe, linking academia, policymakers, and civil society to share experiences and co-design strategies.
- 2. Embedding participatory and ethical practices:** Ensure that local communities co-determine just outcomes by, for example, co-designing AI systems and digital tools with stakeholders. Ethical governance frameworks should mandate participatory data collection, particularly in regions where marginalised groups are at risk of being overlooked.
- 3. Auditing legal pluralism and power dynamics:** Embracing legal plurality means adopting a constructive culture that treats tensions, conflicts and mistakes as potential driver of innovation. Governments need also to conduct audits to assess how different legal orders influence transition law and policies. This involves analysing how local, national, trans- and international laws interact to shape in/just outcomes. Principled governance frameworks, such as transformative learning and policy coherence analysis, can help resolving trade-offs between ecological and social justice.

4. Strengthening global equity and cooperation:

Institutionalise international cooperation beyond the Anglo-European region to align climate and energy transition research and investments with social justice. Climate justice agreements and compensation, for example, should prioritise historically marginalised regions to prevent more exacerbating of existing inequalities.

5. Prioritising interdisciplinary research:

- Prioritise research that advances equitable transformations through methodological innovation by
- (1) paying attention to how local and global conceptions of justice intersect,
 - (2) applying pluralist and intersectional approaches to analyse how class, gender and sociocultural identities shape in/exclusion and in/equality within transition processes;
 - (3) evaluating legal and policy reforms through JT principles, for example in energy and AI governance, to ensure alignment with equity goals;
 - (4) developing tools for (self)reflexivity and critical engagement to address blind spots, structural power imbalances, and unintended consequences in policy design and implementation.

This integrated approach will strengthen evidence-based policymaking and foster inclusive, justice-centered transitions.



Author's Portrait

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