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# Compounding Injustices Can Impede a Just Energy Transition

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## Compounding Injustices Can Impede a Just Energy Transition

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## Compounding Injustices Can Impede a Just Energy Transition

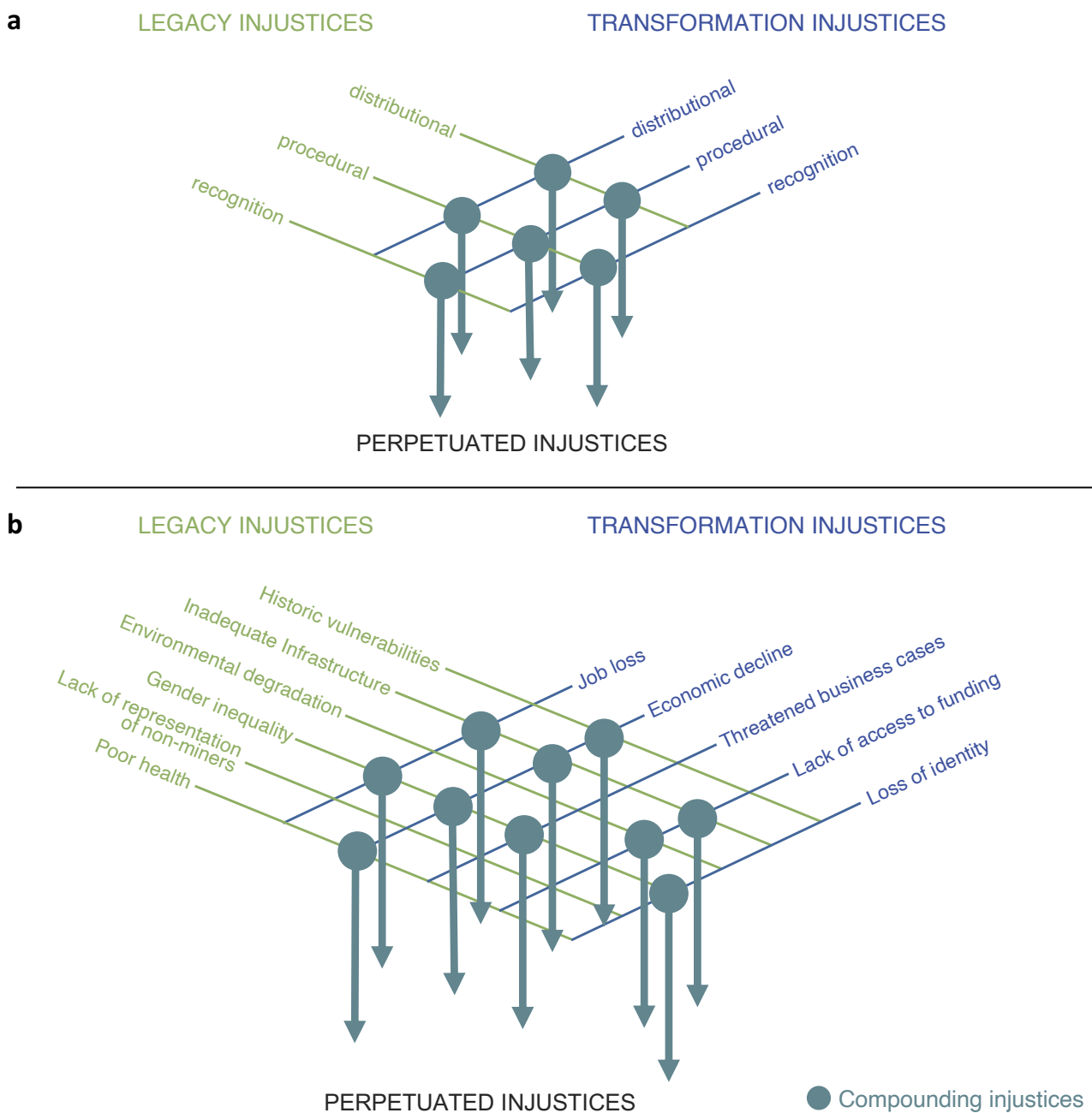
**Coal and carbon-intensive regions have lagged behind in socioeconomic development, long before any transition-related structural changes were foreseeable. Acknowledging and tackling the compounding effects of old legacy and new transition injustices is vital for realizing a truly just energy transition.**

Coal and other carbon-intensive industries have long been the economic cornerstones of many European regions. These industries serve as large employers, offering competitive wages, contributing significantly to regional prosperity and underpinning public coffers through taxes and royalties. However, most coal and carbon-intensive regions in Europe also suffer from what some have called a ‘resource curse’<sup>1</sup> and perform poorly compared to other regions in their respective countries across a range of social and economic indicators including unemployment rate, GDP, income and investments per capita, and regional competitiveness.<sup>2</sup>

These *legacy injustices* that have emerged from the historic carbon-intensive industry are frequently reproduced within transitions. Drawing on the three tenets of energy justice established in the literature<sup>3-5</sup> we can differentiate distributional inequalities related to gender inequality, historic (socio-)economic vulnerabilities, and access to infrastructure. These are often compounded, and further amplified by, recognition injustices (e.g., harmed reputation and identities) and procedural injustices, including a lack of representation of non-miners in just transition policy making at the local and national level. Collectively, these legacy injustices represent the starting point for transitions in affected regions.

The demise of the fossil fuel industry in Europe and resulting structural changes are now adding another layer of *transformation injustices* – job losses, further economic decline, and the erosion of identity in coal communities. Again, it is useful to differentiate these according to distributional, procedural and recognition injustices. The different injustices overlap and intersect with each other creating *compounding injustices*, resulting in heightened vulnerability and exposure for the affected groups and individuals. Not all intersections are equally problematic. Case-specific circumstances will determine which of the intersections are particularly prone to perpetuating injustices (Figure 1).

The fact that impacts of current or future carbon-intensive industries’ phase-out overlay existing and historical inequalities complicates just transition efforts. Drawing on the insights of a four-year EU-funded research project and the academic literature, we review key compounding injustices and how they create particular predicaments that need addressing through just transition policies.



**Figure 1** **Compounding injustices emerge from intersecting legacy and transformation injustices.** Conceptual illustration of legacy and transformation injustices leading to compounding injustices affecting a Just Transition (Panel a) and an illustrative sample diagram of the types of compounding injustices that might arise in a specific regional context (Panel b).

### Examining legacy injustices

Many existing energy and climate just transition policies in Europe focus on anticipated injustices originating from the demise of carbon-intensive industries and the emerging challenges of a low-carbon energy transition. In focus are workers who might lose their jobs, households facing increasing short-term, energy-related expenditures, and companies experiencing the erosion of business models either directly or indirectly because of the rising costs of energy supply. Many of those

directly impacted are those employed in secondary industries or other residents of coal regions.

While improved industrial processes have significantly reduced air pollution, mining still imposes a burden on coal communities, and historic mining activity has left deep environmental scars across a diverse range of coal regions in Europe. For example, mining activities frequently lead to significant environmental degradation and pollution. These impacts also create legacy health issues, including higher-than-average rates for some cancers and lung diseases, cardiovascular diseases, lower-than-average life expectancy, and higher infant mortality rates.<sup>6</sup>

Transition planning tends to be strongly geared towards male-dominated industrial jobs. Areas that are female-dominated and essential for the development of the regions, such as care and education, receive less attention and support. This intersects with existing gendered dynamics in carbon-intensive regions, further compounding injustices. Working in a mine has historically led to families adopting a traditional family model with the husband as sole breadwinner and a stay-at-home wife. This is partly out of opportunity, as many of the carbon-intensive industry jobs are particularly well-paid. It is also partly out of necessity, because shift working in carbon-intensive and mining activities makes it difficult for women with children to take on employment, especially if care services are underdeveloped.<sup>7</sup>

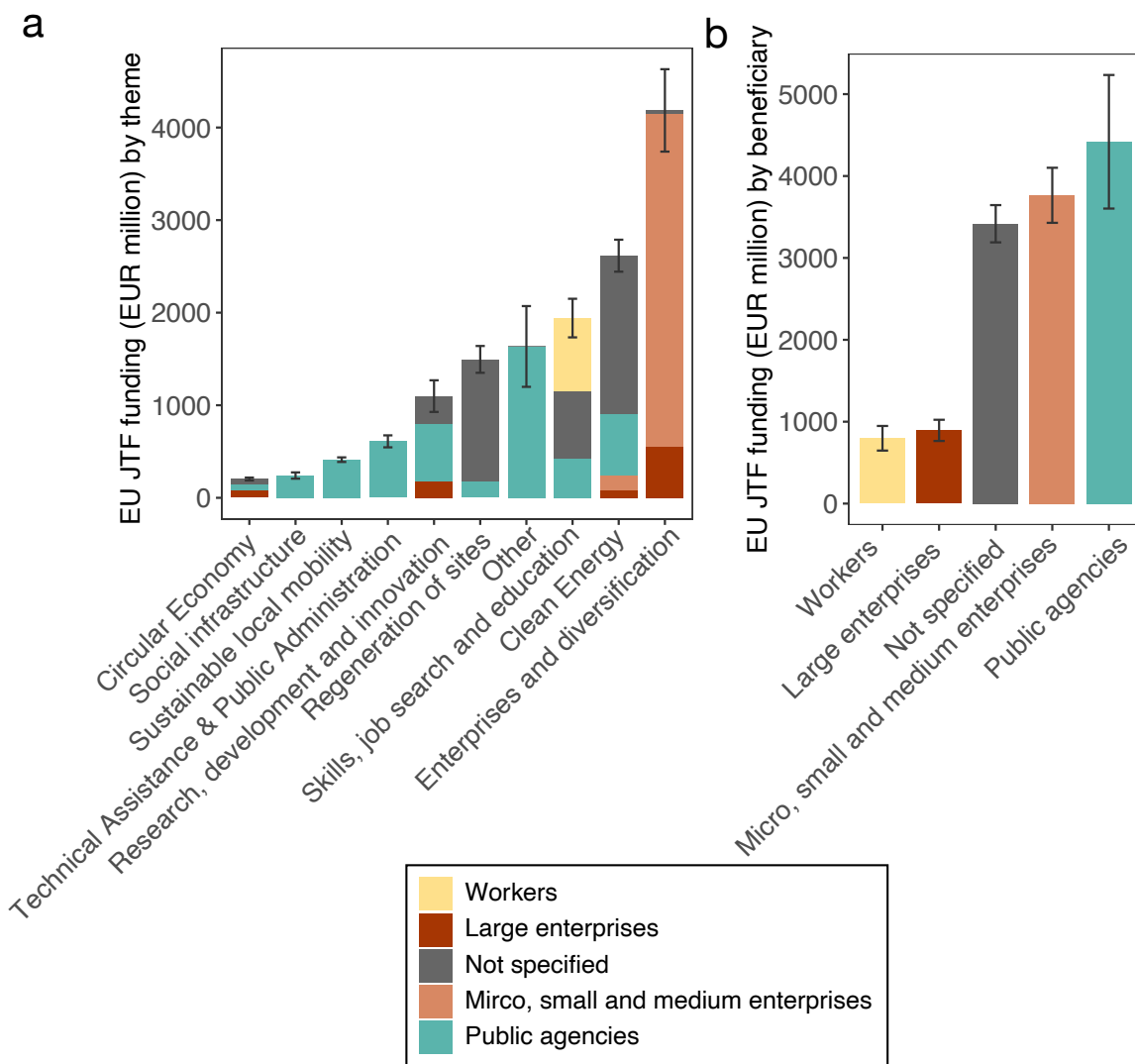
As a result of their industrial legacy, coal regions tend to be characterised by physical infrastructures including public transport and road networks that have evolved to suit mining needs, which require financial and administrative resources to change. Local and regional governance institutions, as well as union structures, have also built up around carbon-intensive industries, and often reflect corresponding political structures. The decline of these industries may contribute to the destabilisation of local structures, and create pressures that motivate these institutions to resist decarbonisation and hinder a just transition.<sup>8</sup>

Coal legacies may also combine to create a disempowered social and political climate that leaves these regions vulnerable to political exploitation, where negative regional self-identity can make residents feel like second-class citizens relative to their compatriots.<sup>9</sup> In combination with low levels of democratic participation and the inevitable disruption of labour, this creates fertile ground for resistance to decarbonisation, especially in the early phases of transition, as well as the rise of populist parties within these regions.<sup>10</sup>

There is evidence to suggest that populist rhetoric has propagated nostalgic narratives around miners as masculine breadwinners and key contributors to national economic growth in countries such as Poland, Germany, and Estonia.<sup>11</sup> This narrative directly appeals to specific ethno-racial gender groups – male miners – pitting them against larger-scale European projects including the green transition and liberal social policies that are frequently portrayed as elitist. Far-right populist parties exploit discontent with decarbonisation by positioning it as an attack on historical traditions, fossil-dependent growth of the region, regional identity and above all, the traditional family model.<sup>11</sup>

## Diverging Views on Just Transition Funds

Data on funding allocation for Europe’s just energy transition from the Cohesion Open Data Platform indicates that, in Europe, the bulk of funding is directed at regional authorities in coal regions and comes from both national governments and the EU’s Just Transition Fund (JTF).<sup>12</sup> The EU JTF is allocated differently across coal regions, but is mainly directed at public agencies that implement measures and investments, focusing on entrepreneurship, renewable energy development, jobs, training and education, and, in some places, social and health infrastructure (Figure 2). There is strong support for micro, small and medium enterprises in these regions, with a smaller share of funding going to large, often fossil fuel-related enterprises and workers.<sup>13</sup>



**Figure 2 Just Transition funding to EU coal regions.** Panel (a) by theme indicated in the Cohesion Open Data Platform and panel (b) by beneficiary based on the “Types of intervention” from the Cohesion Open Data Platform. Bars represent central estimates, error bars represent uncertainty ranges in flows being allocated to coal phase-out, or other carbon-intensive industries.

Despite evidence for targeted funding and wider support for coal communities and industry, residents of coal regions perceive that transition processes are re-entrenching existing patterns of privilege and wealth distribution, with political and economic elites taking action to support their own positions.<sup>14</sup> These seemingly contradictory findings point to a gap between relevant stakeholders' different scales of knowledge.<sup>15</sup> Specifically, we attribute this gap between local perception and funding distribution to a lack of political attention to compounding injustices.

Addressing this perception gap is critical for progress toward decarbonisation. While attending to distributional injustices is a key component of transition planning, it is proving insufficient on its own. This is evidenced by growing levels of populist-inspired resistance in coal regions, with the potential to derail decarbonisation initiatives from local to national to EU levels.<sup>11</sup> Research indicates that local resistance is often a result of feelings of disempowerment related to procedural or recognition injustices, regardless of attention to distributional justice.<sup>16</sup> For example, in carbon-intensive regimes such as Estonia, both opponents and proponents of oil shale production identify injustices related to change – whether phasing out of oil shale leading to job losses, or increasing reliance on oil shale worsening air pollution and local environmental externalities.<sup>4</sup> There is thus a need to consider how injustices are compounded when designing plans and interventions that address the key vulnerabilities that feed these movements and constrain decarbonisation progress.

### **Policy Recommendations**

New injustices are arising from fossil fuel industry decline; however, achieving a just transition in Europe's carbon-intensive regions is significantly hindered not only by the complex mix of compounding legacy and new injustices, but also by how these injustices are strategically utilized by actors with varying agendas. The subsequent policy recommendations outline how a compounding injustice perspective may help to realize a more just energy transition.

First, policy makers across the EU need to acknowledge and better address these compounding injustices by focusing more on energy transition processes that also meaningfully address procedural and recognition justice. Even while European national and regional policy makers work to equitably distribute just transition funds, there are persistent public perceptions of injustice that can be mitigated by attending to compounding procedural and recognition injustices through careful design of transition processes focused on inclusion, representation, and recognition. Specifically, accounting for compounding injustices can lead policy makers to reconsider whose knowledge counts and whose voice and lived experiences are captured.

Second, a robust monitoring system is required to systematically map existing and prospective injustices and inequalities in the energy transition, and to facilitate tracing progress towards alleviating them. With its Clean Industrial Deal, the European Commission has proposed establishing a European Fair Transition Observatory. If implemented well, it could support this task. Doing so will help policy makers to identify real improvements across various justice dimensions and help them to justify continued support for transition policies.<sup>5</sup>

Third, based on a robust empirical foundation, policy makers should promote inclusivity and representation of local community actors identified as particularly exposed to compounding injustices, and who have historically been left out of the decision-making process. This may require a shift in the locus of activity to empower local actors to have a say in how just transition funds are spent. Conversely, policy makers ought to be identifying, acknowledging and unravelling deeply ingrained and perpetuated logics and structures that often privilege a small group of beneficiaries in order to support more inclusive structures and more equitable allocation of funding in future just energy transition policies.

Finally, both policy makers and researchers need to acknowledge that social and economic stress caused by the energy transition requires emotional labour from, and support for, those affected. Social divisions – visible, for example, through increasing support for populist political parties – must be proactively addressed.<sup>11</sup> Drawing linkages between compounding injustices will help to contextualise these important dynamics, providing a richer canvas for future research into the dynamics of gender and income inequality, inadequate infrastructure provisions, and political representation.

Despite the fact that it is messy and time-consuming, it is now the process of transition that we need to devote attention to, and not only the medium- and long-term transition outcomes. Achieving absolute justice for everyone is impossible. Therefore, just energy transitions are necessarily always work in progress. A successful energy transition continuously seeks to remedy existing injustices and minimise and avoid new ones. Using the compounding injustices perspective developed here can help to direct both academic and political attention to those predicaments that matter most.

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## **COMPETING INTERESTS**

The authors declare no competing interests.

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