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## JUST TRANSITIONS

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*The transition to a low-carbon society will have winners and losers as the costs and benefits of decarbonization fall unevenly on different communities. This potential collateral damage has prompted calls for a “just transition” to a green economy. While the term, “just transition,” is increasingly prevalent in the public discourse, it remains under-discussed and poorly defined in legal literature, preventing it from helping catalyze fair decarbonization. This Article seeks to define the term, test its validity, and articulate its relationship with law so the idea can meet its potential.*

*The Article is the first to disambiguate and assess two main rhetorical usages of “just transition.” I argue that legal scholars should recognize it as a term of art that evolved in the labor movement, first known as a “superfund for workers.” In the climate change context, I therefore define a just transition as the principle of easing the burden decarbonization poses to those who depend on high-carbon industries. This definition provides clarity and can help law engage with fields that already recognize just transitions as a labor concept.*

*I argue further that the labor-driven just transition concept is both justified and essential in light of today’s deep political polarization and “jobs-versus-environment” tensions. First, it can incorporate much-needed economic equity considerations into environmental decisionmaking. Second, it can inform a modernized alternative to the environmental law apparatus, which must evolve to transcend disciplines. Third, it offers an avenue for climate reform through coalition-building between labor and environmental*

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*interests. I offer guidance for effectuating the principle by synthesizing instances of its embodiment in law in the Trade Act of 1974 (assisting manufacturing communities), the President's Northwest Forest Plan (assisting timber communities), the Tobacco Transition Payment Program (assisting tobacco farmers), and the POWER Initiative (assisting coal communities), among other examples.*

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#### INTRODUCTION

Political obstacles notwithstanding, many in the United States agree that carbon emissions must be quickly and dramatically reduced in order to avoid further catastrophic effects of climate change. Whether the path to a decarbonized world is more winding or straightforward, the effects of a transition to a low-carbon society will fall unevenly on many communities,

which raises serious normative questions of justice.<sup>1</sup> In response to this concern, many call for a “just transition” to a low-carbon future.<sup>2</sup> While this phrase has gained significant traction,<sup>3</sup> its meaning remains unclear.<sup>4</sup>

“Just transition” has at least two primary usages. First, the phrase is used to mean that the transition to a low-carbon society should be fair to the most vulnerable populations.<sup>5</sup> The current fossil fuel-based economy has been characterized by inequality and environmental injustice, or environmental hazards that are inequitably distributed.<sup>6</sup> The new, low-carbon economy should not repeat or exacerbate these injustices; in fact, the transition is a new opportunity, indeed an obligation, to counteract them.<sup>7</sup>

The second meaning of “just transition” calls for protecting workers and communities who depend on high-carbon industries from bearing an undue burden of the costs of decarbonization.<sup>8</sup> It proposes that the shift to a low-carbon economy will affect certain livelihoods disproportionately, and that

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1. Cf. Ann Eisenberg, *Civil Society Versus Transnational Corporations in International Energy Development: Is International Law Keeping Up?*, in CHINA AND GOOD GOVERNANCE OF MARKETS IN LIGHT OF ECONOMIC DEVELOPMENT 27 (Paolo Davide Farah ed., Routledge Pub., forthcoming 2019) (on file with author) (arguing that civil liberties may be sacrificed in the name of clean-energy development projects).

2. While this Article refers to “low-carbon” policy goals, these goals are assumed to also contemplate other greenhouse gas emissions with similar effects relating to climate change. The discussion focuses on carbon both for the sake of succinctness and because of carbon’s prominence among the greenhouse gases as a driver of climate change.

3. See *Ngram Viewer: Just Transition*, GOOGLE BOOKS, [https://books.google.com/ngrams/graph?content=just+transition&year\\_start=1800&year\\_end=2017&corpus=15&smoothing=3&share=&direct\\_url=t1%3B%2Cjust%20transition%3B%2Cc0](https://books.google.com/ngrams/graph?content=just+transition&year_start=1800&year_end=2017&corpus=15&smoothing=3&share=&direct_url=t1%3B%2Cjust%20transition%3B%2Cc0) (last visited Jan. 25, 2019) (searching for the frequency of the use of the term “just transition”).

4. Cf. Dimitris Stevis & Romain Felli, *Green Transitions, Just Transitions? Broadening and Deepening Justice*, 3 KURSWECHSEL 35, 35 (2016) (Ger.) (“In short, there are varieties of Just Transition, reflecting the politics of its various advocates.”).

5. See *infra* Section I.A.

6. See Peter Newell & Dustin Mulvaney, *The Political Economy of the ‘Just Transition’*, 179 GEOGRAPHICAL J. 132, 132–33 (2013) (discussing inequality and fossil fuel usage).

7. See MARK SWILLING & EVE ANNECKE, JUST TRANSITIONS: EXPLORATIONS OF SUSTAINABILITY IN AN UNFAIR WORLD, 50–52 (2012); Victor B. Flatt & Heather Payne, *Not One Without the Other: The Challenge of Integrating U.S. Environment, Energy, Climate, and Economic Policy*, 44 ENVTL. L. 1079, 1085 (2014) (discussing financial harms climate change has already posed to world economies and vulnerable populations). As an example, some scholarship has raised concerns about increased reliance on biofuels as a renewable energy source because of their potential to harm vulnerable populations—which would illustrate an unjust transition to renewables according to this definition. See, e.g., Nadia B. Ahmad, *Blood Biofuels*, 27 DUKE ENVTL. L. & POL’Y FORUM 265, 282–94 (2017) (discussing impacts on small farmers and poor consumers in developing countries); Carmen G. Gonzalez, *The Environmental Justice Implications of Biofuels*, 20 UCLA J. INT’L L. & FOREIGN AFF. 229, 251–60 (2016) (discussing impacts on taxpayers, small farmers, and poor consumers in developing countries); Uma Outka, *Environmental Justice Issues in Sustainable Development: Environmental Justice in the Renewable Energy Transition*, 19 J. ENVTL. & SUSTAINABILITY L. 60, 77–85 (2012) (discussing impacts on Native American tribes and African American communities).

8. See *infra* Section I.A.

this impact should be mitigated.<sup>9</sup> As one labor advocate explains, a just transition “means tackling climate change in a way that respects workers.”<sup>10</sup>

This Article demonstrates that the latter, labor-driven concept of a just transition is not only justified but is key to overcoming many of the obstacles that plague climate reform. Environmental policy remains thwarted by a variety of problems old and new. Longstanding “jobs-versus environment” tensions persist, as well as the more general notion that environmental protection represents a zero-sum game with winners and losers.<sup>11</sup> Even before the current presidential administration, scholarship contemplated the future of environmental law in an era of legislative stagnation.<sup>12</sup> Many have called for environmental law to adapt to the times by reshaping itself in various ways—letting go of some of its traditional emphases,<sup>13</sup> crossing over into other doctrinal areas,<sup>14</sup> and becoming more malleable in one manner or another in order to better interact with the political, economic, and social realities of a complex world.<sup>15</sup>

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9. See David Doorey, *Just Transitions Law: Putting Labour Law to Work on Climate Change*, 30 J. ENVTL. L. & PRAC. 201, 206–07 (2017). In light of climate change,

energy and resource-intensive sectors are likely to stagnate or contract . . . new pressures will be brought to bear on unemployment, adjustment, and training strategies . . . . There will be winners and losers in domestic and international labour markets . . . . The idea of “just transition” to a greener, lower carbon economy has its roots in the global labour movement . . . . Just transition refers to a policy platform that advocates legal and policy responses and planning that recognizes the needs for economies to transition to lower carbon economic activity, while at the same time respects the need to promote decent work and a fair distribution of the risks and rewards associated with this transition.

*Id.*; Newell & Mulvaney, *supra* note 6, at 133–34.

10. Josua Mata, *What is ‘Just Transition’?*, NEW INTERNATIONALIST, Sept. 2016, at 21.

11. See Shalanda Baker et al., *Beyond Zero-Sum Environmentalism*, 47 ENVTL. L. REP. 10328, 10330–32, 10340–43 (2017).

12. Todd S. Aagaard, *Environmental Law’s Heartland and Frontiers*, 32 PACE ENVTL. L. REV. 511, 511–12 (2015) (“Environmental law is currently—and has been for some time—in a phase that is simultaneously reassuring and worrisome. As a society, we have been generally well served by the forty-five years of modern federal environmental law since 1970. . . . The unfortunate flip side of stability, at least in this case, has been a marked degree of ossification.”); David W. Case, *The Lost Generation: Environmental Regulatory Reform in the Era of Congressional Abdication*, 25 DUKE ENVTL. L. & POL’Y FORUM 49, 89 (2014) (“[T]he prospects that Congress will enact any such positive reform-minded environmental legislation in the foreseeable future appear nonexistent.”); J.B. Ruhl, *Climate Change Adaptation and the Structural Transformation of Environmental Law*, 40 ENVTL. L. 363, 407 (2010). *But see* Dave Owen, *Little Streams and Legal Transformations*, 2017 UTAH L. REV. 1, 5–6 (2017) (arguing that environmental protections have expanded and become more sophisticated and that overly pessimistic narratives discount environmental law’s accomplishments).

13. See Todd S. Aagaard, *Environmental Law Outside the Canon*, 89 IND. L.J. 1239, 1281–91 (2014) (calling for rethinking of environmental law as dominated and characterized by canon of major federal statutes enacted in 1970s, and proposing approaches that could work in antagonistic political climate, integrate with non-environmental laws, and better approach climate change); Todd S. Aagaard, *Using Non-Environmental Law to Accomplish Environmental Objectives*, 30 J. LAND USE & ENVTL. L. 35, 35 (2014); Daniel C. Esty, *Red Lights to Green Lights: From 20th Century Environmental Regulation to 21st Century Sustainability*, 47 ENVTL. L. 1, 5 (2017).

14. See Aagaard, *Environmental Law’s Heartland and Frontiers*, *supra* note 12, at 512–13.

15. See Blake Hudson, *Relative Administrability, Conservatives, and Environmental Regulatory*

The labor-driven concept of a just transition is powerfully poised to address these deep concerns if scholars and policymakers embrace it. First and most clearly, it reroutes jobs-versus-environment tensions into a principle of “jobs *and* environment,” taking one of the longstanding thorns in environmentalism’s side and marshaling it toward productive pathways.<sup>16</sup> Second, by blurring the boundaries between environmental law and labor law, it can help align environmental decisionmaking more with the realities of complex social-ecological systems.<sup>17</sup> Third, by aligning environmental interests with labor concerns, it creates potential for coalition-building, thus informing both the ends of climate policy and the ever-elusive means for achieving it.<sup>18</sup> Finally, in an age of dramatic populist alienation,<sup>19</sup> it would inject much-needed economic equity considerations into environmental decisionmaking.

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*Reform*, 68 FLA. L. REV. 1661, 1661 (2016) (arguing that geographic-delineation policies at state and local level offers environmental reform plan that would be palatable to conservatives); Dave Owen, *Mapping, Modeling, and the Fragmentation of Environmental Law*, 2013 UTAH L. REV. 219, 224–25 (2013) (arguing for applying quantitative spatial analysis to environmental law); Jedediah Purdy, *American Natures: The Shape of Conflict in Environmental Law*, 36 HARV. ENVTL. L. REV. 169, 169 (2012) (“Legal scholarship is in a bad position to make sense of [climate change] because the field has concentrated on making sound policy recommendations to an idealized lawmaker, neglecting the deeply held and sharply clashing values that drive, or block, environmental lawmaking.”); Rachael E. Salcido, *Rationing Environmental Law in a Time of Climate Change*, 46 LOY. U. CHI. L.J. 617, 621 (2015) (arguing that “rationing” environmental law, in other words, selectively applying environmental law to renewable energy because of climate change, is not ideal, but is nonetheless worthwhile “based on the reality of political failures, market forces, and horrifying consequences of unchecked fossil fuel dependence”); Michael P. Vandenberg, *Reconceptualizing the Future of Environmental Law: The Role of Private Climate Governance*, 32 PACE ENVTL. L. REV. 382, 383 (2015) (arguing for “opportunity to buy time with private governance”).

16. Cf. Doorey, *supra* note 9, at 206–07.

17. Cf. Ruhl, *supra* note 12, at 407.

18. Cf. Mark Sagoff, *The Principles of Federal Pollution Control Law*, 71 MINN. L. REV. 19, 82–83 (1986) (criticizing environmentalism as separating ends of environmental policy from means necessary to attain the ends). So-called “blue-green alliances”—instances of environmental groups and labor groups joining forces to advocate for joint environmental and work-related platforms—demonstrate the potency of measures that bridge the historical rift between labor and environmental concerns. Ann M. Eisenberg, *Alienation and Reconciliation in Social-Ecological Systems*, 47 ENVTL. L. 127, 145 (2017). Notable examples exist of environmentalists acknowledging labor issues, and vice versa. In 1973, Sierra Club President Mike McCloskey called for “the government ‘to indemnify workers who are displaced in true cases of plant closures for environmental reasons.’” He argued, “[w]orkers should not be made to bear the brunt of any nation’s commitment to a decent environment for all. Society should assume this burden and aid them in every way possible.” LES LEOPOLD, *THE MAN WHO HATED WORK AND LOVED LABOR* 309 (2007). Today, the Sierra Club and other environmental organizations have partnered with large labor unions in a “blue-green alliance” to advocate for environmental reform alongside policies that “create and maintain quality jobs.” *Members*, BLUE GREEN ALLIANCE, <https://www.bluegreenalliance.org/about/members> (last visited Jan. 25, 2019).

19. Cf. Scott D. Campbell, *Sustainable Development and Social Justice: Conflicting Urgencies and the Search for Common Ground in Urban and Regional Planning*, 1 MICH. J. OF SUSTAINABILITY 75, 75 (2013) (noting that “middle-class environmental interests typically trump the interests of the poor and marginalized, too often leading to an exclusionary sustainability of privilege rather than a sustainability of inclusion”); Eisenberg, *supra* note 18, at 127.

The Article also demonstrates that it is worth choosing one meaning for this term and that the labor-driven meaning makes more sense than the alternative. “Just transition” is a term of art that evolved in the labor movement, first known as a “superfund for workers.”<sup>20</sup> Its specificity gives it potency, and it has already gained traction in other disciplines and with major international organizations.<sup>21</sup> The broader usage, while important, seems redundant alongside comparable but better-known concepts, such as climate justice and energy justice.<sup>22</sup> It is confusing and less productive for different disciplines, and different scholars within law, to use the same term with different understandings of its meaning.<sup>23</sup>

I therefore argue that in the context of climate change, the just transition concept should be defined as some form of help for fossil fuel workers. Yet the broadest theoretical impetus for this help goes beyond environmental law. The just transition is an equitable principle of easing the burden that publicly-driven displacement poses to workers and communities who are highly dependent on a particular industry, especially a hazardous one. The theory has flavors of an estoppel concept, an unclean hands argument, or something akin to a call for takings compensation.<sup>24</sup> It is a principle of distributive economic justice, insisting that those displaced should not alone sustain their economic losses. This idea arises most frequently in response to environmental progress, but it bears relevance to other contexts as well.<sup>25</sup>

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20. LEOPOLD, *supra* note 18, at 417.

21. See discussion *infra* Section I.A.

22. See Randall S. Abate, *Public Nuisance Suits for the Climate Justice Movement: The Right Thing and the Right Time*, 85 WASH. L. REV. 197, 199 (2010) (“Climate justice embraces a human rights approach to advocating for rights and remedies for climate change . . . climate justice focuses on the rights of those disproportionately affected by the impacts of climate change.”); Shalanda H. Baker, *Mexican Energy Reform, Climate Change, and Energy Justice in Indigenous Communities*, 56 NAT. RESOURCES J. 369, 379 (2016) (though not yet a cohesive field of study, energy justice provides overall framework to view related areas of climate justice, environmental justice, and energy democracy); see also Flatt & Payne, *supra* note 7, at 1081 (noting that “[e]nergy poverty” recognizes inextricable linkage between energy and “economics of the human condition.”).

23. Cf. Geoff Evans & Liam Phelan, *Transition to a Post-Carbon Society: Linking Environmental Justice and Just Transition Discourses*, 99 ENERGY POL’Y 329, 333 (2016).

24. Both unclean hands and estoppel are longstanding doctrines of equity that attempt to inject principles of fair play into parties’ dealings with one another. The unclean hands doctrine prevents parties from profiting from their own wrongdoing, while the estoppel doctrine prevents parties from taking inconsistent positions. See T. Leigh Anenson & Gideon Mark, *Inequitable Conduct in Retrospective: Understanding Unclean Hands in Patent Remedies*, 62 AM. U. L. REV. 1441, 1450 (2013). Of course, it is not contemplated that fossil fuel workers could raise such claims in court successfully. Rather, the ideas underlying calls for just transitions seem to invoke similar principles: society should not profit substantially from its hazardous industries only to abandon the workers in those industries, and nor should it encourage fossil fuel development only to abruptly take the opposite stance. For a discussion of a takings analogy, see *infra* Section II.B.

25. See discussion *infra* Section III.B for brief treatments of displacement resulting from taxi drivers competing with ride-sharing services and displacement resulting from gentrification. A forthcoming article, *Distributive Justice and Rural America*, further explores the just transitions concept

The prospect of a law of just transitions raises many questions, however, some of which labor law scholar David Doorey has begun to explore in a germinal article examining the desirability of a potential new field combining aspects of labor law, environmental law, and environmental justice.<sup>26</sup> How would just transitions relate to other models of distributive justice, such as environmental justice, which maintains that the burdens of pollution should be less discriminatorily and more equitably distributed?<sup>27</sup> How would it relate to sustainable development, which aims to reconcile environmental and economic considerations?<sup>28</sup> Would it merely create new employment opportunities when climate-related regulations affect a certain sector, or is it what one union president called it—“a really nice funeral”?<sup>29</sup> Must there be a causal link between regulatory initiatives and impacts on jobs, or does a just transition also concern industry contractions that stem from market forces?<sup>30</sup> Can the two be meaningfully differentiated?<sup>31</sup>

This Article attempts to answer these questions. Part I provides background necessary for understanding the just transitions concepts, disambiguates the two different usages of the term, and argues that legal scholarship should embrace the labor-driven definition. Part II explores three avenues that could serve as theoretical justifications for the labor-driven just transition principle in the context of climate change. Based on a theory of distributive environmental decisionmaking, the history of injustice in coalfield communities, and principles of political economy and interest-group theory, the discussion concludes that the labor-driven just transition

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as a principle of distributive economic justice. *See generally* Ann M. Eisenberg, *Distributive Justice and Rural America* (unpublished manuscript) (on file with author).

26. *See generally* Doorey, *supra* note 9.

27. *See* Richard J. Lazarus, *Pursuing “Environmental Justice”: The Distributional Effects of Environmental Protection*, 87 NW. U. L. REV. 787, 829 (1993).

28. *See* Outka, *supra* note 7, at 62–63 (“[S]ustainable development . . . means more than ‘greener’ economic development. Instead, it captures the interrelationship between the environment, the economy, and human well-being in the effort to meet ‘the needs of the present without compromising the ability of future generations to meet their own needs.’”).

29. Dylan Brown, *Mining Union Faces ‘Life-and-Death’ Test*, E&E NEWS (Apr. 11, 2017), <https://www.eenews.net/stories/1060052929>.

30. *See infra* Section II.B; *see also* Naomi Seiler et al., *Legal and Ethical Considerations in Government Compensation Plans: A Case Study of Smallpox Immunization*, 1 IND. HEALTH L. REV. 3, 14 (2004) (noting that the question of whether government should compensate someone raises the question of whether government actor caused harm in question; noting, too, that government can act either way out of compassion rather than obligation, and that causation by a non-government actor also raises question of whether government failed to protect from harm).

31. *Cf.* Holly Doremus, *Takings and Transitions*, 19 J. LAND USE & ENVTL. L. 1, 4–5 (2003) (“Focusing more directly on law as a dynamic phenomenon, on the benefits and costs of transitions, and on other factors that may encourage or impede transitions might bring some coherence to [the] famously incoherent area of [takings] law.”); Louis Kaplow, *An Economic Analysis of Legal Transitions*, 99 HARV. L. REV. 509, 534 (1986) (“[N]one of the distinctions they offer for treating government and market risks differently withstands scrutiny.”).

principle is indeed legitimate, consistent with relevant norms, and necessary in the face of climate change. Part III synthesizes major federal transitional policies of the past several decades and argues that an effective law and policy of just transitions, especially when targeting regional displacement, must do more to untangle and address the complex, intertwined factors that shape communities' dependency relationships with particular industries.

The stakes of this inquiry are high. Coal miners have become a symbol for broader national divisions, and commentators still strive to understand the "urban/rural divide" that made its way into the national consciousness via the 2016 presidential election. This analysis offers insights for the plight of coal miners and other rural communities, as well as certain workers' relationship with environmentalism and climate policy. It also implicates a reconsideration of work, workplace safety, well-paying jobs, abrupt societal change, and private and public accountability for many workers' abject vulnerability in a period that has been contemplated as a "new *Lochner* era."<sup>32</sup> Major social and economic changes will continue to come. Scholars and policymakers would be well-advised to contemplate more robust transitional policy and baseline protections in light of the despair and instability unmitigated transitions can yield.

## I. WHAT IS A "JUST TRANSITION"? BACKGROUND AND RHETORIC

### A. THE TRANSITION TO A LOW-CARBON ECONOMY AND THE TRANSITION'S POTENTIAL CONSEQUENCES

The term "just transition" tends to arise in two contexts. Some use the expression to refer to more general principles of equity in the transition to a low-carbon economy.<sup>33</sup> In other words, the shift to a low-carbon economy is an opportunity to rectify the injustices of the fossil fuel economy, and to not do so, or to allow inequalities to worsen, would itself effectuate injustice. On the other hand, some use the expression to refer to the nexus of labor and environmental reform, or the approach of taking work and jobs into account in or after environmental decisionmaking.<sup>34</sup> Yet both meanings derive from overlapping circumstances.

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32. See, e.g., Mark Joseph Stern, *A New Lochner Era*, SLATE (June 29, 2018), <https://slate.com/news-and-politics/2018/06/the-lochner-era-is-set-for-a-comeback-at-the-supreme-court.html>.

33. SWILLING & ANNECKE, *supra* note 7; Caroline Farrell, *A Just Transition: Lessons Learned from the Environmental Justice Movement*, 45 DUKE F.L. & SOC. CHANGE 45, 45 (2012) ("As we transition away from a fossil fuel economy, we should . . . plan the transition not only to change the way we use fuel, but to create a truly just economy.")

34. Doorey, *supra* note 9, at 7.

First, the fossil fuel-based economy characterizing the past century has had many casualties.<sup>35</sup> They run the full gamut from a child developing asthma in rural Australia,<sup>36</sup> to executions of community advocates in Nigeria,<sup>37</sup> to fishermen's damaged livelihoods in the U.S. Gulf,<sup>38</sup> to victims of geopolitical machinations, including war.<sup>39</sup> People of color, indigenous communities, and people living in poverty have borne the worst burdens of the fossil fuel economy, in large part because of energy production.<sup>40</sup> The ultimate "externality" is, of course, climate change, the impacts of which we are already beginning to feel.<sup>41</sup>

The global community is currently experiencing substantial momentum toward a low-carbon, "clean energy" economy.<sup>42</sup> This transition is driven in part by a prevalent desire to mitigate climate change, both in the United States and elsewhere.<sup>43</sup> While the U.S. federal government is hostile to environmental regulation,<sup>44</sup> many U.S. states, cities, and institutions have confirmed their ongoing commitment to reducing carbon emissions.<sup>45</sup> For

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35. See, e.g., Outka, *supra* note 7, at 68 (listing harmful health and environmental effects of fossil fuel production and consumption).

36. Cf. Evans & Phelan, *supra* note 23.

37. See *Wiwa v. Royal Dutch Petroleum Co.*, 226 F.3d 88 (2d Cir. 2000), *cert. denied*, 532 U.S. 941 (2001); see also Uma Outka, *Fairness in the Low-Carbon Shift: Learning from Environmental Justice*, 82 BROOK. L. REV. 789, 792 (2017) (explaining that the U.S. petroleum industry has caused devastating human rights abuses in Africa and South America).

38. Debbie Elliot, *5 Years After BP Oil Spill, Effects Linger and Recovery Is Slow*, NAT'L PUB. RADIO (Apr. 20, 2015), <http://www.npr.org/2015/04/20/400374744/5-years-after-bp-oil-spill-effects-linger-and-recovery-is-slow>.

39. E.g., Luis E. Cuervo, *OPEC from Myth to Reality*, 30 HOUS. J. INT'L L. 433, 494 (2008).

40. Shannon Elizabeth Bell & Richard York, *Community Economic Identity: The Coal Industry and Ideology Construction in West Virginia*, 75 RURAL SOC. 111, 139 (2010); Jeanne Marie Zokovitch Paben, *Green Power & Environmental Justice—Does Green Discriminate?*, 46 TEX. TECH L. REV. 1067, 1108 (2014).

41. See Outka, *supra* note 7, at 790 (explaining that the energy sector's reliance on fossil fuels, primarily coal, makes it the primary source of greenhouse gas emissions in the United States, a country which has contributed more to climate change than any other country); Salcido, *supra* note 15, at 618–19 (listing effects of climate change already occurring, such as more severe, frequent storms).

42. Evans & Phelan, *supra* note 23, at 330 (describing social movement for "post-carbon society," which ranges from grassroots, "bottom-up surveillance" and demands for more democratic and decentralized energy sources, to major U.S. banks that have moved away from ever-riskier coal investments).

43. See, e.g., Tom Murray, *China Is Going All in on Clean Energy as the U.S. Waffles. How Is that Making America Great Again?*, FORBES (Jan. 6, 2017), <https://www.forbes.com/sites/edfenergyexchange/2017/01/06/china-is-going-all-in-on-clean-energy-as-the-u-s-waffles-how-is-that-making-america-great-again/2/#769f3bac340f>.

44. Michael Greshko et al., *A Running List of How President Trump Is Changing the Environmental Policy*, NAT'L GEOGRAPHIC (Oct. 19, 2018), <http://news.nationalgeographic.com/2017/03/how-trump-is-changing-science-environment>.

45. Devashree Saha & Mark Muro, *Growth, Carbon, and Trump: State Progress and Drift on Economic Growth and Emissions 'Decoupling'*, BROOKINGS (Dec. 8, 2016), <https://www.brookings.edu/research/growth-carbon-and-trump-state-progress-and-drift-on-economic-growth-and-emissions-decoupling>.

instance, “[d]ays after President Trump announced that he would be pulling the U.S. out of a global agreement to fight climate change, more than 1,200 business leaders, mayors, governors and college presidents . . . signaled their personal commitment to the goal of reducing emissions.”<sup>46</sup> The transition is also driven by market forces and concomitant evolutions in policy forces—with “widespread recognition, including among utilities, that low-carbon policy drivers are here to stay.”<sup>47</sup> Internationally, countries have taken the opposite approach to the Trump administration’s, such as with China’s plan to invest \$360 billion in renewable energy by 2020.<sup>48</sup> Altogether, these factors have compelled some commentators to deem the transition to a low-carbon society “inevitable.”<sup>49</sup>

Nevertheless, a world with low carbon emissions does not somehow transform into a utopia. A shift to a clean-energy economy stands to perpetuate or exacerbate current patterns of inequity. Those patterns could specifically relate to low-carbon industries, for instance, through land theft to develop wind and solar farms, forced labor to extract the natural resources necessary to create solar panels, or impositions of health hazards from biomass fuels.<sup>50</sup> The patterns could also arise in other contexts in the low-carbon world, such as through inequitable access to clean energy.<sup>51</sup>

While these novel risks have begun to receive more attention in dialogues on climate change and the clean-energy transition, so, too, has the slightly more controversial question of “jobs.” “Jobs versus environment” tensions surround nearly every environmental policy debate.<sup>52</sup> Industry advocates and workers argue frequently that environmental reform will destroy individual livelihoods and communities’ entire way of life.<sup>53</sup>

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46. Camila Domonoske, *Mayors, Companies Vow to Act on Climate, Even as U.S. Leaves Paris Accord*, NAT’L PUB. RADIO (June 5, 2017), <http://www.npr.org/sections/thetwo-way/2017/06/05/531603731/mayors-companies-vow-to-act-on-climate-even-as-u-s-leaves-paris-accord>.

47. Outka, *supra* note 7, at 793; Murray, *supra* note 43.

48. Nigel Topping, *The Irreversible Rise of the Clean Economy in 2017*, GREENBIZ (Feb. 7, 2017), <https://www.greenbiz.com/article/irreversible-rise-clean-economy-2017>.

49. *Id.*

50. Outka, *supra* note 7, at 77–85; Stevis & Felli, *supra* note 4, at 43 (“Like the grey economy before it, this Green Transition can be as exploitative of people and nature as the grey economy was, if there is no countervailing power and vision.”).

51. Lakshman Guruswamy, *Energy Justice and Sustainable Development*, 21 COLO. J. INT’L ENVTL. L. & POL’Y 231, 271 (2010).

52. Alex Geisinger, *Uncovering the Myth of a Jobs/Nature Trade-Off*, 51 SYRACUSE L. REV. 115 *passim* (2001); Carey Catherine Whitehead, *Wielding a Finely Crafted Legal Scalpel: Why Courts Did Not Cause the Decline of the Pacific Northwest Timber Industry*, 38 ENVTL. L. 979, 981 (2008) (describing the “classic” jobs-versus-environment “story”).

53. See, e.g., Garrett Ballengee & Michael Reed, *Clean Power Plan: All Pain, No Gain for West Virginia*, THE HILL (Aug. 3, 2016), <http://thehill.com/blogs/pundits-blog/energy-environment/289694-clean-power-plan-all-pain-no-gain-for-west-virginia>.

Environmental groups—who have good reason to be cynical—have historically responded to these claims with dismissiveness.<sup>54</sup> Environmental advocates have argued that concerns about jobs are either industry propaganda or misinformed in some way.<sup>55</sup> Complaints that environmental reforms undermine jobs thus often encounter arguments that job losses are not as bad as claimed, or even if they are, environmental reform provides a net benefit to all that outweighs the cost of a few lost jobs.<sup>56</sup>

This tension raises the question: do environmental regulations cause people to lose their jobs—with “lost jobs” often used as a rhetorical stand-in for lost *good* jobs?<sup>57</sup> And if they do, does the benefit to the greater good offset the lost jobs? These questions are more complicated than they may seem. A first, critical point is that the changes that are necessary for the United States to reduce its greenhouse gas emissions adequately are dramatic.<sup>58</sup> Thus, climate reform that is meaningfully suited to climate change is not the same as the incremental environmental reforms of the past. According to one interpretation, carbon emissions in the United States need to decline by 40% over the next twenty years.<sup>59</sup> Methane and other greenhouse gas emissions also need to be reduced at some level.<sup>60</sup> “To accomplish this goal will require across-the-board cuts in both production and consumption in all domestic fossil fuel sectors”<sup>61</sup> and likely, in other industries as well.<sup>62</sup>

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54. See, e.g., Geisinger, *supra* note 52.

55. E.g., *id.* See generally Lois J. Schiffer & Jeremy D. Heep, *Forests, Wetlands and the Superfund: Three Examples of Environmental Protection Promoting Jobs*, 22 J. CORP. L. 571 (1997) (describing as a “myth” that conflict exists between protection of environment and protection of jobs).

56. See, e.g., ISAAC SHAPIRO & JOHN IRONS, ECON. POLICY INST., BRIEFING PAPER #305 REGULATION, EMPLOYMENT, AND THE ECONOMY: FEARS OF JOB LOSS ARE OVERBLOWN 12 (2011) (“Regulations can have broad economic benefits that may not be apparent at first blush. Clean air regulations, for instance, significantly improve the health of workers and children, resulting in lower health care costs and more productive workers.”); Jan G. Laitos & Thomas A. Carr, *The Transformation on Public Lands*, 26 ECOLOGY L.Q. 140, 174 (1999) (noting benefits to communities of shifts away from extractive industries); Schiffer & Heep, *supra* note 55.

57. Cf. Fran Ansley, *Standing Rusty and Rolling Empty: Law, Poverty, and America’s Eroding Industrial Base*, 81 GEO. L.J. 1757, 1763 (1993) (noting that plant closures of 1980s and 90s were “both quantitatively and qualitatively different” than regular layoffs and socioeconomic transitions in the number, size, and frequency of closings, as well as “disturbing patterns in the types of jobs lost and the types of jobs gained”).

58. See Robert Pollin & Brian Callaci, *A Just Transition for U.S. Fossil Fuel Industry Workers*, 27 AM. PROSPECT 88, 89 (2016).

59. *Id.*

60. Maanvi Singh, *Gassy Cows Are Warming the Planet and They’re Here To Stay*, NAT’L PUB. RADIO: THE SALT (Apr. 12, 2014), <https://www.npr.org/sections/thesalt/2014/04/11/301794415/gassy-cows-are-warming-the-planet-and-theyre-here-to-stay> (methane from livestock accounted for 39% of agricultural greenhouse gas emissions in 2011).

61. Pollin & Callaci, *supra* note 58, at 89.

62. See generally, e.g., INT’L CIVIL AVIATION ORG., ENVIRONMENTAL REPORT 2010: AVIATION AND CLIMATE CHANGE (2010) (reporting that aviation accounts for around 2% of total CO<sub>2</sub> emissions);

The “transition” is therefore a new era, which could involve a relatively rapid restructuring of society. This rapid restructuring could involve quicker, more extreme contractions of certain industries. According to economists Robert Pollin and Brian Callaci, in this scenario, “workers and communities whose livelihoods depend on the fossil fuel industry will unavoidably lose out in the clean energy transition. Unless strong policies are advanced to support these workers, they will face layoffs, falling incomes, and declining public-sector budgets to support schools, health clinics, and public safety.”<sup>63</sup>

Yet even if the transition to a clean-energy economy involves more incremental changes, it is worth contemplating whether the environmental movement has itself periodically had a misinformed stance on the question of work. As many have pointed out, environmental regulations have been shown not to result in a *net* loss of jobs for a given society and may in fact produce net gains in employment.<sup>64</sup> This may seem to support the “greater good” argument. Indeed, the clean-energy transition is anticipated to yield dramatic growth in the ever-burgeoning green energy sector, creating millions of new jobs over the course of the coming decades.<sup>65</sup>

However, regulations and other measures have at times also been shown to catalyze job losses for discrete regions and sectors.<sup>66</sup> Viewed through a legal geographies lens—which holds that questions of scale, scope, and place may show that what is “just” at one level is “unjust” at another<sup>67</sup>—this collateral damage of environmental reform does seem more problematic. As one commentator articulated, “[i]f you’re a coal miner in West Virginia, it’s

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LISA J. HANLE ET AL., CO<sub>2</sub> EMISSIONS PROFILE OF THE U.S. CEMENT INDUSTRY (2004) (noting that cement production is a substantial CO<sub>2</sub> emitter); U.S. ENVTL. PROT. AGENCY, FAST FACT: U.S. TRANSPORTATION SECTOR GREENHOUSE GAS EMISSIONS 1990–2015, at 1 (2017) (noting that transportation accounted for 27% of U.S. greenhouse gas emissions in 2015).

63. Pollin & Callaci, *supra* note 58, at 89.

64. Geisinger, *supra* note 52.

65. Pollin & Callaci, *supra* note 58, at 88.

66. Doorey, *supra* note 9, at 221 (“[N]ew regulations limiting emissions or requiring ‘green’ production equipment or techniques can affect production systems in ways that impact working conditions, cause layoffs, or create downward pressure on labour costs.”); Alana Semuels, *Do Regulations Really Kill Jobs?*, ATLANTIC (Jan. 19, 2017), <https://www.theatlantic.com/business/archive/2017/01/regulations-jobs/513563> (“Regulations that seek to make air and water cleaner can also cause concentrated job losses in certain industries and locations.”); *see also* *Lands Council v. McNair*, 494 F.3d 771, 779 (9th Cir. 2007) (finding that an injunction of timber harvest would force timber companies to lay off some or all of their workers); Schiffer & Heep, *supra* note 55, at 582.

No economic analysis can ignore the suffering of some rural communities, which bear the brunt of the economic pain associated with reduced federally subsidized timber supplies. In addition to lost jobs and the associated closure of local businesses, county governments are receiving lower U.S. Treasury payments resulting from timber sales at the same time the county’s social services are most in demand.

*Id.* (footnotes omitted).

67. *Cf.* Hari M. Osofsky, *The Geography of Justice Wormholes: Dilemmas from Property and Criminal Law*, 53 VILL. L. REV. 117, 122 (2008).

not a great comfort that a bunch of guys in Texas are employed doing natural gas.”<sup>68</sup> While industry advocates undoubtedly exploit, or sometimes invent, such harms, it is possible that the environmental movement has also turned a blind eye to them.

Do job losses that are not clearly the proximate cause of legal reform, but that stem from the evolution of market forces, also deserve attention? Society did not, after all, provide special support to the employees of Blockbuster when mail-order DVDs and online streaming took their place because those services were more convenient and in demand. Why should workers who lose in the transition to a low-carbon economy be given preferential treatment over the many other workers who lose in diverse, market-driven scenarios, if policymakers are not intentionally causing them to lose for the greater good?

The question of causation is addressed in more depth in the subsequent discussion, in which I argue that, especially in the energy sector, it is very difficult to disentangle causal forces among law, policy, and market operations. But further, workers’ dependency relationship with a particular industry and lack of alternative options may be what trigger the need for a just transition; in other words, equitable factors may drive this theory just as much, if not more, than causal ones. Yet, again, these tensions also raise the question of a possible choice between more robust transitional policies and more robust protections for workers and communities in general.

#### B. DEFINING A “JUST TRANSITION”

The idea of a just transition originated with the labor movement in the late twentieth century, in part in response to the environmental movement.<sup>69</sup> Labor and environmental activist Tony Mazzocchi is credited with coining the term, with the original version called a “Superfund for Workers.”<sup>70</sup> Referencing the superfund—a federally-financed program to clean up toxic wastes in the environment—suggested Mazzocchi’s proposal was an analogous remedial measure, but for human beings. It was based on the idea that workers who had been exposed to toxic chemicals throughout their careers should be entitled to minimum incomes and education benefits to

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68. Jia Lynn Yang, *Does Government Regulation Really Kill Jobs? Economists Say Overall Effect: Minimal.*, WASH. POST (Nov. 13, 2011), [https://www.washingtonpost.com/business/economy/does-government-regulation-really-kill-jobs-economists-say-overall-effect-minimal/2011/10/19/gIQALRF5IN\\_story.html?noredirect=on&utm\\_term=.f23e96256dfa](https://www.washingtonpost.com/business/economy/does-government-regulation-really-kill-jobs-economists-say-overall-effect-minimal/2011/10/19/gIQALRF5IN_story.html?noredirect=on&utm_term=.f23e96256dfa).

69. Doorey, *supra* note 9, at 203; Newell & Mulvaney, *supra* note 6; Evans & Phelan, *supra* note 23, at 333; Stevis & Felli, *supra* note 4, at 35.

70. LEOPOLD, *supra* note 18, at 417.

transition away from their hazardous jobs.<sup>71</sup> Mazzocchi believed “that both nuclear workers and toxic workers, ‘because of the danger of their jobs and their service to the country, should be entitled to full income and benefits for life even if their jobs are eliminated,’” although he later gave in to pressure to reduce his demand to four years of support.<sup>72</sup> After environmentalists complained that the word “superfund” “had too many negative connotations,” the proposal’s name was changed to “[j]ust [t]ransition.”<sup>73</sup>

In the 1970s and through his death in the early 2000s, Mazzocchi and his associates were involved in creating “powerful labor-environmental alliances” that pursued the just transition campaign with the hope of addressing “the jobs-versus-environment conundrum.”<sup>74</sup> He was “the first union president to negotiate partnerships with Greenpeace and the environmental justice communities.”<sup>75</sup> He also developed educational programs for workers on the environment.<sup>76</sup> Mazzocchi’s advocacy thus forms the basis of the modern iteration of the labor-driven “just transition” concept. This foundation shapes the term’s modern usage as the idea that workers and communities whose livelihoods will be lost because of an intentional shift away from hazardous activity deserve some sort of support through public policy.<sup>77</sup>

Meanwhile, the broader usage of “just transition” is of less certain origin. It appears to be the plain-language interpretation of the labor movement’s term of art, thereby calling for “justice” more generally, and not just for workers. In other words, it emphasizes the importance of not continuing to sacrifice the well-being of vulnerable groups for the sake of advantaging others, as has been the norm in the fossil-fuel-driven economy. Thus, the broad concept of a “just transition” may in fact be even more radical than the narrow one because the former calls for a grand restructuring of societal inequality.

This discussion focuses on the labor-driven usage of just transitions and argues that legal scholars should do the same for two main reasons, beyond the fact that it is confusing for scholars in different spheres to be using the

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71. *Id.*

72. *Id.* at 416.

73. *Id.* at 417.

74. *Id.* at 468.

75. *Id.*

76. *Id.*

77. *But see* Caleb Goods, *A Just Transition to a Green Economy: Evaluating the Response of Australian Unions*, 39 AUSTL. BULL. OF LAB. 13, 15 (2013) (“A just transition clearly seeks to resolve the divisive jobs versus environment problem; however, actual union commitments to what a just transition response constitutes can be assessed as variable and unclear.”).

same emergent term with different meanings, and in addition to the theoretical discussion below. First, the labor-related usage seems to predate the broad usage and to have gained more traction. Major international organizations have embraced the labor-related meaning. Just transitions for workers have been adopted as goals by the United Nations Environment Program, the International Labour Organization (“ILO”), and the World Health Organization.<sup>78</sup> In 2013, the ILO published a policy framework for a just transition, which focused specifically on workers, noting that “[s]ustainable development is only possible with the active engagement of the world of work.”<sup>79</sup>

In addition, the labor-related usage’s specificity makes it stand out. The broad call for justice shares similarities with other models used to call for equity in the face of climate change, including environmental justice, climate justice, and energy justice.<sup>80</sup> This overlap may suggest that the broad concept has less of a niche to fill than the narrow one, and more risk of redundancy. By contrast, the labor usage’s narrowness may give it more potency.<sup>81</sup> In other words, it is not clear what a broad call for a just transition adds to these powerful and better-known concepts of justice, which all relate directly to the low-carbon shift.

Scholarly commentary complicates the choice somewhat because the literature seems split between the two usages. The broad meaning appears in at least some social science and legal scholarship. In a 2012 book entitled *Just Transitions*, two sustainability scholars defined a just transition as one “that addresses the widening inequalities between the approximately one billion people who live on or below the poverty line and the billion or so who are responsible for over 80 percent of consumption expenditure.”<sup>82</sup> Environmental justice scholar Caroline Farrell has characterized a just transition as one that avoids “the problems with the fossil fuel

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78. Evans & Phelan, *supra* note 23, at 333.

79. INT’L LABOUR ORG., GUIDELINES FOR A JUST TRANSITION TOWARDS ENVIRONMENTALLY SUSTAINABLE ECONOMIES AND SOCIETIES FOR ALL 3–4, 13 (2015) (advising governments to include implementing workers’ skills training and engaging workers and their representatives in the means to achieve low-carbon policies while creating and protecting employment).

80. Farrell, *supra* note 33, at 45 (discussing environmental justice); Shelley Welton, *Clean Electrification*, 88 U. COLO. L. REV. 571, 573 (2017) (discussing “clean energy justice,” or the idea that “the suite of policies boosting green jobs also creates a new genre of environmental justice challenges,” and other inequitable effects of clean energy policies); see Ruhl, *supra* note 13, at 407 (noting “climate justice” refers to the fact that climate change impacts will be felt unevenly throughout the world; the capacity to adapt to climate change is also unevenly distributed).

81. See *infra* Section III.C; cf. Frederico Cheever & John C. Dernbach, *Sustainable Development and Its Discontents*, 4 TRANSNAT’L ENVTL. L. 247, 282 (2015) (rejecting criticisms of “sustainable development” as too vague to be useful).

82. SWILLING & ANNECKE, *supra* note 7, at xiii.

economy . . . [and aims] to create a truly just economy,” or as a “transition to an economy that does not create disparate environmental impacts.”<sup>83</sup>

Sociologists, political scientists, and several legal scholars who have explored the labor-related meaning provide a solid foundation from which to continue examining it.<sup>84</sup> They have also begun filling in the contours of what, exactly, this usage of “just transitions” means. Rural sociologist Linda Lobao interprets a just transition as one that “mov[es coal] communities toward economic sectors that offer a better future.”<sup>85</sup> Interdisciplinary scholars Evans and Phelan define it more broadly as “a political campaign to ‘ensure that the costs of environmental change [towards sustainability] will be shared fairly. Failure to create a just transition means that the cost of moves to sustainability will devolve wholly onto workers in targeted industries and their communities.’”<sup>86</sup>

In the legal sphere, David Doorey’s definition emphasizes work somewhat more. He explains the concept as “a policy platform that advocates legal and policy responses and planning that recognizes the need for economies to transition to lower carbon economic activity, while at the same time respects the need to promote decent work and a fair distribution of the risks and rewards associated with this transition.”<sup>87</sup> Climate law scholar J. Mijin Cha describes a just transition as “protecting workers who are impacted by climate protection policy,” including by re-training workers and providing them with education funds.<sup>88</sup> Ramo and Behles emphasize the need to recognize communities’ economic dependency on high-emissions activity as those communities transition away from that activity, suggesting, like Labao, that a just transition “help[s] revitalize . . . fossil-fuel dependent communities.”<sup>89</sup>

Calls for just transitions appear to arise the most in union advocacy, which again lends weight to the choice of the labor-driven definition. The

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83. Farrell, *supra* note 33, at 45, 49.

84. Linda Lobao et al., *Poverty, Place, and Coal Employment Across Appalachia and the United States in a New Economic Era*, 81 RURAL SOC. 343, 343 (2016); Judson Abraham, *Just Transitions for the Miners: Labor Environmentalism in the Ruhr and Appalachian Coalfields*, 39 NEW POL. SCI. 218, 218 (2017); Alan Ramo & Deborah Behles, *Transitioning a Community Away from Fossil-Fuel Generation to a Green Economy: An Approach Using State Utility Commission Authority*, 15 MINN. J. L., SCI. & TECH. 505, 507 (2014) (“A significant barrier to transitioning to clean energy sources is the local economic dependency fostered by a fossil fuel economy.”).

85. Lobao et al., *supra* note 84, at 377.

86. Evans & Phelan, *supra* note 23, at 331 (alterations in original) (internal quotation omitted).

87. Doorey, *supra* note 9, at 207.

88. J. Mijin Cha, *Labor Leading Climate: A Policy Platform to Address Rising Inequality and Rising Sea Levels in New York State*, 34 PACE ENVTL. L. REV. 423, 446 (2017).

89. Ramo & Behles, *supra* note 84, at 508.

International Trade Union Confederation has described a just transition as a “tool the trade union movement shares with the international community, aimed at smoothing the shift towards a more sustainable society and providing hope for the capacity of a ‘green economy’ to sustain decent jobs and livelihoods for all.”<sup>90</sup> Generally, just transitions advocates “highlight the need to engage affected workers and their representative trade unions in institutionalised formal consultations with relevant stakeholders including governments, employers and communities at national, regional and sectoral levels.”<sup>91</sup>

Despite the appearance of “justice” in the name of just transitions, few legal commentators have delved more deeply into the legitimacy, significance, or traits of the idea of a just transition. The next Part reviews Doorey’s article, further characterizes the labor-driven just transition concept, and explores what principles may or may not support the concept.

## II. CAN A LAW OF JUST TRANSITIONS BE JUSTIFIED?

This Part asks whether incorporating the just transition principle into law is a worthwhile endeavor, theoretically and practically. Exploring three potential justifications for doing so—one based on environmental theory, one based on the experiences of coal communities, and one based on strategic considerations—the discussion reveals that pursuing just transitions is not merely a nice thing to do. Rather, this discussion supports the conclusion that the concept not only fits neatly within the sustainable development framework—an internationally accepted framework for reconciling competing interests in environmental decisionmaking—but that it in fact injects a long-overlooked, much-needed consideration of economic equity.<sup>92</sup> This Part argues further that coal communities are particularly worthy of attention because of their history of combined exploitation and dependence. This Part’s third argument relies on interest-group theory to propose that the pursuit of just transitions is desirable because it could unite environmental and labor groups around the goal of a potentially more attainable and more equitable climate policy than prior efforts have secured.

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90. Evans & Phelan, *supra* note 23, at 333.

91. *Id.* Australia and Canada have also embraced the narrow just transitions meaning. The Canadian Labour Council defines just transitions “as a political campaign to ‘ensure that the costs of environmental change [towards sustainability] will be shared fairly. Failure to create a just transition means that the cost of moves to sustainability will devolve wholly onto workers in targeted industries and their communities.’” *Id.* at 331.

92. *Should Equity Be a Goal of Economic Policy?*, INT’L MONETARY FUND (Jan. 1998), <https://www.imf.org/external/pubs/ft/issues/issues16> (discussing economic equity as a principle that economic resources, such as income, wealth, and land ownership, should be distributed fairly).

David Doorey's article is the first piece of legal scholarship to explore the worthiness and potential contours of a body of Just Transitions Law ("JTL"). He notes that labor law scholars have "mostly ignored" the effects that climate change will have on labor markets, while environmental law scholars have generally disregarded labor relationships.<sup>93</sup> Because neither legal field seems adequately equipped to handle climate change, he considers whether a new field is needed that combines the strengths of each.<sup>94</sup>

Doorey suggests that areas of common ground between labor and environmental scholarship might be ripe for doctrinal synthesis, such as the fact that both are in the business of "impos[ing] a countervailing power on unbridled economic activity."<sup>95</sup> Yet he also notes that "jobs versus environment" tensions and other conflicting interests have tended to keep the fields apart.<sup>96</sup> Without coming to a firm conclusion as to whether JTL is worthwhile as a new legal field, Doorey does conclude that a just transition strategy is critical in the face of climate change, and that "[t]o implement a just transition strategy, governments need to design policies that cross existing government ministerial portfolios and legal regimes."<sup>97</sup>

Doorey explores three potential forms for a body of law that marries aspects of labor and environment, including: 1) "[a] [l]aw of [e]conomic [s]ubordination and [r]esistance" that combines environmental justice's and labor law's overlapping recognition of power relations and embrace of collective, bottom-up resistance;<sup>98</sup> 2) a law of "[h]uman [c]apital or [c]apacities," which would assess the fairness of rules, both environmental and labor-related, based upon whether they further human capabilities and freedom; and 3) an explicitly-named body of "Just Transitions Law," ("JTL"), which would draw upon existing just transitions policy strategies, such as the ILO's, aimed at joint consideration of environmental and labor goals, including pursuing cross-sectoral collaboration, incentivizing sustainable industries, and offsetting impacts to workers affected by environmental policies.<sup>99</sup>

For his third proposal, the explicit body of JTL, Doorey provides three

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93. Doorey, *supra* note 9, at 201.

94. *Id.*

95. *Id.*

96. *Id.* at 214.

97. *Id.* at 238.

98. *Id.* at 225 ("Also like labour law, environmental justice has roots in a bottom-up resistance movement critical of a dominant legal system that benefits economically and politically powerful, privileged segments of society. [Environmental justice] is a natural ally to labour law in a re-imagined legal field organized around . . . subordination and resistance.").

99. *Id.*

“normative claims (NC) drawn from climate science, environmental law, environmental justice, and labour law.”<sup>100</sup> They include:

Firstly, climate change is a pressing global problem that market forces alone will not adequately address. Therefore, states should respond through public policy and law (NC1). Secondly, public policy should encourage a transition towards “greener”, lower carbon economies (NC2). Thirdly, there will be social and economic costs and benefits associated with climate change, and with the transitional policies aimed at responding to it, and those costs and benefits will also not be equitably distributed by market forces alone. Therefore, governments should seek to minimize the economic and social harms associated with the desired transition to a greener economy, and attempt, through law and policy, to distribute those harms and any resulting benefits in an equitable manner (NC3).<sup>101</sup>

This discussion begins with Doorey’s third proposal and adopts his normative claims for reference. While his first two proposals have great appeal, his third one seems to capture the already-existing evolution of this area of law.

However, like with the broadly-defined just transition described above, one might ask what this set of normative claims adds to the concept of climate justice. A centerpiece of the evolving theory of climate justice is public policy geared toward equitable sharing of the burdens and benefits of climate change through transparent consultation with diverse stakeholders.<sup>102</sup> Climate justice also espouses recognition of the fact that some communities are more vulnerable to the effects of climate change than others, and are more likely to be excluded from benefits.<sup>103</sup>

In order to capture the potency that more specific concepts may yield, to avoid duplicative efforts, and to recognize the labor movement’s role in formulating this theory of justice, I would add a fourth normative claim to Doorey’s third proposal, whether explicitly or implicitly, which is justified in more depth below: the needs of the workers and communities that have developed dependency relationships with high-carbon industries, often with substantial past and present socioeconomic costs, should specifically factor into calculating the equitable distribution of harms and benefits in the transition to a decarbonized economy. This consideration is not proposed as a competitor to environmental justice, climate justice, or any other

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100. *Id.* at 234.

101. *Id.*

102. *Principles of Climate Justice*, MARY ROBINSON FOUND., <https://www.mrfcj.org/principles-of-climate-justice> (last visited Feb. 1, 2019).

103. Maxine Burkett, *Just Solutions to Climate Change: A Climate Justice Proposal for a Domestic Clean Development Mechanism*, 56 BUFF. L. REV. 169, 196 (2008); Ruhl, *supra* note 12, at 408.

framework concerned with vulnerability. It is, rather, a call for the specific recognition of work and existing economic dependencies in the decarbonization process, which have often gone overlooked.

This discussion does not take up the question of whether JTL should be an entirely new area of law. Like Doorey's, it is intended as an "early contribution" to this emerging field.<sup>104</sup> The discussion therefore explores instead whether the just transition principle is worthwhile, and how it could be incorporated into law—which is perhaps also a worthwhile consideration as an alternative to establishing a new legal field.

#### A. AN ENVIRONMENTAL THEORY OF JUST TRANSITIONS

The discussion in this Section argues that the labor-driven just transition concept has a natural and important place within current prominent distributive environmental decisionmaking frameworks. In other words, this discussion seeks to legitimize the concept and situate it in relevant literature. The discussion shows that the idea is neither foreign nor frivolous in relation to environmental theory. But further, I argue that it adds a point of consideration that other frameworks have tended to overlook, suggesting all the more that it is a worthwhile idea.

The just transition concept, understood in the context of climate change, is a call for distributive justice in (or after) environmental decisionmaking.<sup>105</sup> In order to understand or define it, then, it is important to assess it in relation to existing models for environmental distributive justice. Sustainable development and environmental justice are two of the most prominent of these models.<sup>106</sup> Each model strayed from traditional environmentalism, which is largely focused on pro-conservation, anti-pollution measures, in order to try to establish a framework that takes more socioeconomic realities into account, including the need for equitable distribution of benefits and burdens.<sup>107</sup>

Environmental injustice was originally known as environmental racism, calling attention to the fact that communities of color bear a disproportionate burden of environmental hazards.<sup>108</sup> Sustainable development, meanwhile, is a forward-looking decisionmaking paradigm that seeks to harmonize conservation priorities with economic considerations as well as social

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104. Doorey, *supra* note 9.

105. *See generally* JOHN RAWLS, A THEORY OF JUSTICE (1971).

106. Alice Kaswan, *Distributive Justice and the Environment*, 81 N.C. L. REV. 1031 *passim* (2003). *See generally* Guruswamy, *supra* note 51.

107. Outka, *supra* note 7, at 64–65.

108. *Id.*

equity.<sup>109</sup> While environmental justice adds a civil rights component to environmentalism, sustainable development aims to mitigate standard development by incorporating historically overlooked priorities into development decisions.<sup>110</sup>

The just transition concept exhibits a significant parallel with environmental justice in that both ideas were born as social movements in the late twentieth century in response to the environmental movement.<sup>111</sup> Environmental justice calls for racial equity (and other forms of non-discrimination), while just transitions calls for labor equity. The movements are thus not dissimilar in that each advocates a distributive component on top of traditional environmentalism's conservation priorities. Another parallel is that each is a broad, equitable principle that is at times embodied in laws in different ways. Yet the movements and legal schemes associated with each concept have rarely interacted, in part because of conflicting priorities and cultural backgrounds.<sup>112</sup>

Sustainable development, as compared to environmental justice, has perhaps more direct applicability to the question of work. The sustainable development approach aims to “capture[] the interrelationship between the environment, the economy, and human well-being in the effort to meet ‘the needs of the present without compromising the ability of future generations to meet their own needs.’”<sup>113</sup> In other words, it is “a decisionmaking framework to foster human well-being by ensuring that societies achieve development and environment goals at the same time.”<sup>114</sup> Sustainable development directly aims to undermine the fossil fuel economy. It thus, in turn, creates the need for a “just transition,” in that it is fundamentally premised on a shift to renewable energy sources.<sup>115</sup> Yet it also may provide tools for ensuring a just transition because of its concern for economic and equity-related priorities.

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109. See generally Guruswamy, *supra* note 51.

110. Outka, *supra* note 7, at 64.

111. Evans & Phelan, *supra* note 23, at 333.

112. *Id.* at 331.

[W]hile there is potential synergy between environmental justice and just transitions campaigns, a harmonious resolution of the two concepts is not guaranteed if the interests and aspirations within the community are poorly negotiated between the parties involved. A melding of environmental justice campaign goals on the one hand and labour movement goals on the other, is particularly challenged by the continuing hegemony of the ‘jobs versus environment’ discourse.

*Id.*

113. Outka, *supra* note 7, at 62–63.

114. John C. Dernbach, *Creating Legal Pathways to a Zero Carbon Future*, 46 ENVTL. LAW REP. 10780, 10782 (2016).

115. Outka, *supra* note 7, at 72–74.

While sustainable development as a theory faces many criticisms, it is “not simply an academic or policy idea; it is the internationally accepted framework for maintaining and improving human quality of life.”<sup>116</sup> For instance, based on the overall aim of sustainable development, international frameworks have adopted as goals both poverty eradication and addressing “[t]he deep fault line that divides human society between the rich and the poor and the ever-increasing gap between the developed and developing worlds . . . .”<sup>117</sup> Sustainable development’s actual implementation takes on many forms, as the approach “needs to be realized in the particular economic, natural, and other settings of each specific country,”<sup>118</sup> as well as each specific state or city. “The key action principle of sustainable development is integrated decisionmaking. Essentially, decisionmakers must consider and advance environmental protection at the same time as they consider and advance their economic and social development goals.”<sup>119</sup> This contrasts with conventional development, where environmental concerns historically arose only as afterthoughts.<sup>120</sup>

Sustainable development decisionmaking is often represented as a triangle. Its three points are the economy, the environment, and equity or social justice.<sup>121</sup> The points are a simplified representation of the three values or priorities that sustainable development seeks to reconcile.<sup>122</sup> The standard sustainable development triangle is represented in Figure 1.

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116. Dernbach, *supra* note 114, at 10782 (footnote omitted); *see also* Campbell, *supra* note 19, at 75.

[D]espite the perhaps inevitable criticisms of immeasurability and vagueness, sustainability has endured as a central principle in urban planning because its oppositional engagement with social justice and economic development continually reinvigorates sustainability planning, keeps the term relevant and inclusive, and grants the task of urban planning greater urgency.

Campbell, *supra* note 19, at 75.

117. Rep. of the World Summit on Sustainable Dev., U.N. Doc A/CONF.199/20, at 2 (2002).

118. Outka, *supra* note 7, at 64.

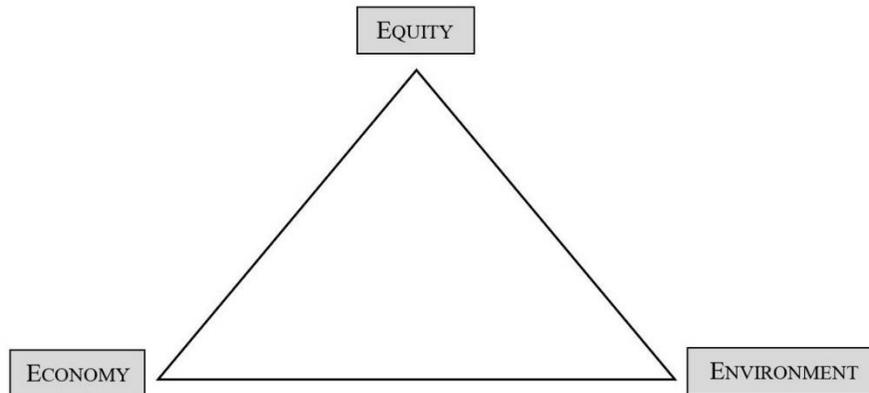
119. Dernbach, *supra* note 114, at 33 (footnotes omitted).

120. *Id.*

121. *See, e.g.*, Campbell, *supra* note 19, at 83; Edward H. Ziegler, *American Cities and Sustainable Development in the Age of Global Terrorism: Some Thoughts on Fortress America and the Potential for Defensive Dispersal II*, 30 WM. & MARY ENVTL. L. & POL’Y REV. 95, 110 (2005) (“[S]ocial equity, and particularly intergenerational equity, along with resource conservation and environmental protection, are central concepts in sustainable development philosophy.”).

122. These values are also referred to as “the three Es (Economy, Environment, and Equity)[.] [S]ustainable development is often defined as an endeavor that strives to maintain equilibrium between these domains.” Catherine L. Ross et al., *Measuring Regional Transportation Sustainability: An Exploration*, 43 URB. LAW. 67, 69 (2010).

FIGURE 1. Sustainable Development Framework



The triangle represents an accessible conceptualization of the harmony that the decisionmaking paradigm seeks to achieve. In turn, these three values are embodied in law and policy in varied ways. For example, a traditional building code, reworked through the lens of sustainable development values, could transform into a “green” building code, prioritizing materials with minimal environmental impacts and low-carbon energy sources. The “equity” prong might dictate that new housing developments, as an example, should not only be green, but also affordable.

Environmental justice and sustainable development may seem like they occupy different spheres of environmental theory, but Uma Outka has observed that they have the potential for synergy. She notes a risk of conflict between the two models as the broader sustainable development agenda might prove insensitive to environmental justice concerns.<sup>123</sup> For instance, at the project level, sustainable development and environmental justice can face tensions, such as if the siting of wind farms (comporting with sustainable development’s driving concern for carbon reduction) harms indigenous cultural resources (violating environmental justice’s concern for communities’ autonomous decisionmaking and the non-discrimination principle).<sup>124</sup> Yet Outka argues that environmental justice in fact refines sustainable development by adding the particular environmental justice

123. Outka, *supra* note 7, at 66; *see also* Campbell, *supra* note 19, at 76 (“The sustainability and social justice movements may be coming closer together, yet much still divides them into two separate conversations that frequently overhear each other without easily merging.”).

124. Outka, *supra* note 7, at 85.

conception of equity.<sup>125</sup> She concludes that for sustainable development to be consistent with environmental justice, the significant differences among renewable energy sources require more recognition and concrete definition, so that each pathway's potential for inequity can be better understood and addressed.<sup>126</sup>

Outka's articulation of this relationship can thus perhaps be represented by Figure 2 below, which highlights environmental justice as an aspect of the sustainable development framework at the nexus of the environment and equity points of the triangle. In other words, environmental justice becomes another value that must be harmonized with other values in environmental decisionmaking, including the three Es. As a principle of environmental equity, environmental justice aligns with sustainable development at the nexus of sustainable development's environment and equity prongs.

FIGURE 2. Sustainable Development with Environmental Justice Refinement

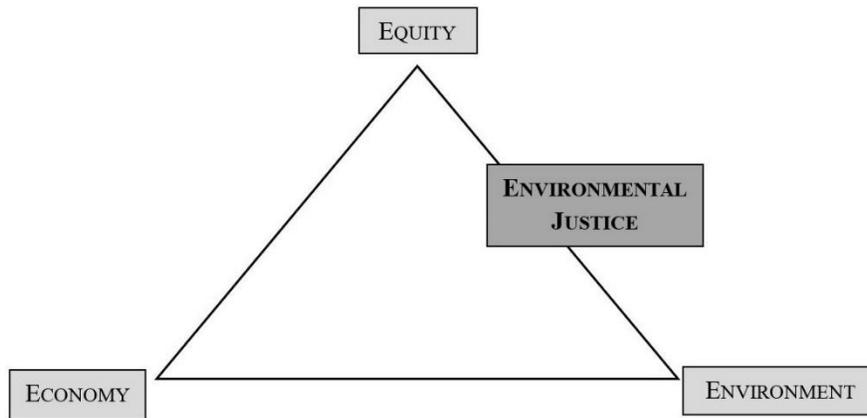


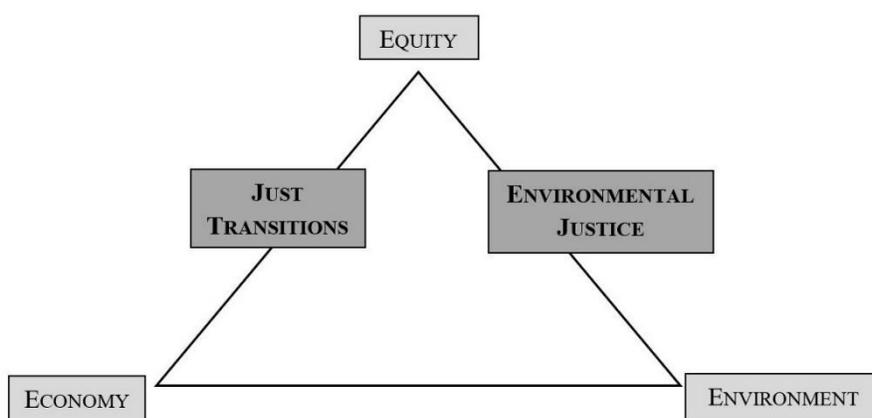
Figure 2 is not meant to suggest that environmental justice is the *only* refinement to sustainable development, or the only point of interest on the environment-equity leg. However, in a decisionmaking framework that is intended to manage complex scenarios, understanding these relationships can help inform the characteristics of normative paradigms. Environmental justice is a call for environmental equity, and it has a natural locus in the sustainable development paradigm.

125. *Id.* at 63; see also Campbell, *supra* note 19, at 77 (suggesting that environmental justice is an "important subset of the larger field of urban sustainability").

126. Outka, *supra* note 7, at 91.

When viewed through the framework of sustainable development, just transitions no longer seems like such a foreign concept to environmental law. Primarily, environmental decisionmakers already have a framework for considering questions of economic equity as they relate to environmental decisionmaking. Just transitions, with its concern for avoiding or mitigating inequitable impacts to livelihoods in environmental decisions, is ultimately a doctrine of economic equity. Thus, a natural place for just transitions is running parallel to environmental justice and in the analogous position along the economic and equity side of the triangle, as shown in Figure 3.

FIGURE 3. Sustainable Development Framework with Environmental Justice and Just Transitions



This visualization is powerful because it suggests that, like environmental justice, a just transition is simply a refinement to a framework upon which decisionmakers already rely. While it might also be said to have already existed along the economy-equity side, it has largely gone unrecognized. Just as environmental justice is a principle of environmental equity that must be harmonized with other values, the just transition is a principle of economic equity that should also factor into the calculus—and it appears to have a natural place within that calculus.

Another reason this visualization is powerful is that it builds upon increasingly vocal calls for environmental justice to inform the transition to a low-carbon society.<sup>127</sup> These calls, in fact, circle back on the broad meaning of the just transition—the idea that the decarbonization process

127. *Id.* at 122.

must be done fairly in general.<sup>128</sup> One may be concerned that these paradigms might all conflict with each other in the transition, or pose difficult zero-sum choices. The visualization in Figure 3 shows that these principles are complementary, and in fact, bring environmental decisionmaking toward a more holistic picture of societal needs.<sup>129</sup>

This visualization may also help reconcile some of the tensions between sustainable development theory and resilience theory. Resilience theory has emerged as a counter-framework to sustainable development.<sup>130</sup> Resilience theorists' criticisms of sustainable development are that sustainable development assumes stationary, controllable circumstances; potentially sanctions current patterns of harmful development and an ethic of "green consumerism;" and fails to account for complexity, or the interrelatedness of complex social-ecological systems.<sup>131</sup> This latter point is particularly concerning to resilience theorists in the age of climate change, which will involve more drastic changes in ecological and social regimes than previously seen.<sup>132</sup> Resilience theorists instead advocate decisionmaking paradigms that are iterative, or ongoing, rather than traditional planning processes; that involve "principled flexibility;"<sup>133</sup> and that anticipate constant change in social-ecological systems.<sup>134</sup> Adaptive management and adaptive governance have been considered potential vehicles for pursuing resilience governance, although scholars agree that a gap remains between theory and practice.<sup>135</sup>

Although the rift may be large, perhaps the addition of environmental justice and just transitions to the sustainable development framework brings sustainable development a modest inch closer to resilience thinking. The more points of interest that are added to the sustainable development framework, the more sustainable development would seem to wield potential for decisionmaking that accommodates social-ecological systems. Figure 4 illustrates that the framework above can in fact represent a continuum of

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128. Farrell, *supra* note 33, at 45.

129. *Cf. id.* at 51. Farrell uses the broad just transitions meaning, but she also concludes that holistic decisionmaking is necessary going forward.

130. Eisenberg, *Alienation and Reconciliation*, *supra* note 18.

131. Melinda Harm Benson & Robin Kundis Craig, *The End of Sustainability*, 27 SOC'Y & NAT. RES. 777, 779–80 (2014).

132. *Id.*

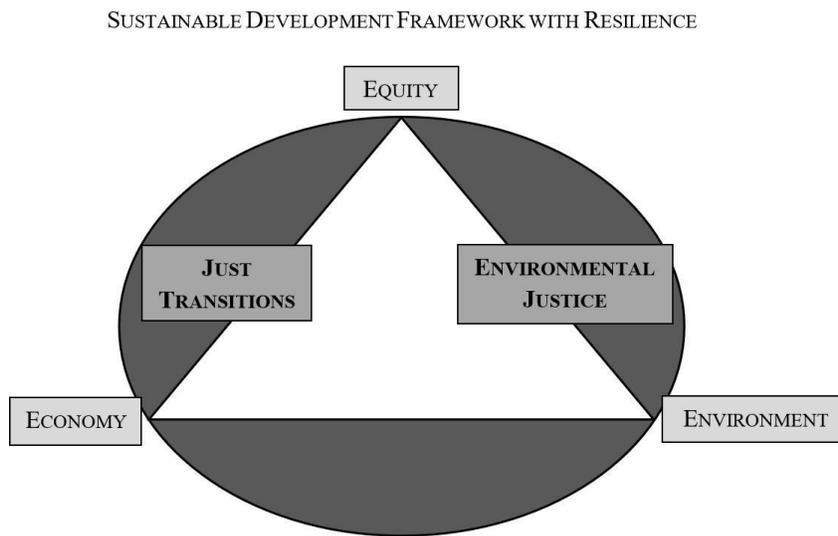
133. Robin Kundis Craig, "Stationarity Is Dead"—*Long Live Transformation: Five Principles for Climate Change Adaptation Law*, 34 HARV. ENVTL. L. REV. 9, 63–64 (2010).

134. Robin Kundis Craig & J.B. Ruhl, *Designing Administrative Law for Adaptive Management*, 67 VAND. L. REV. 1 (2014); Flatt & Payne, *supra* note 7 at 1081.

135. Benson & Craig, *supra* note 131.

social, economic, and natural concerns.<sup>136</sup> While there are infinite points of interest on the continuum, environmental justice and just transitions show points of particular concern based on society's historical and potential inequities. If one recognizes that the sustainable development paradigm could have infinite points, the next natural inference must be an acceptance of uncertainty because infinite interacting aspects of social-ecological systems could never be stationary.

FIGURE 4. Making Sustainable Development Work for Social-Ecological Systems



In any case, the frameworks above show how the just transition concept has a natural place with several prominent environmental theories of today. But it can also follow the path of environmental justice and sustainable development in that it may at times be a principle warranting contemplation,

136. The President's Northwest Forest Plan, discussed below as an example of just transitions policy that aided communities hurt by the decline in the timber industry, lends weight to the potential of the just transitions concept to help bring sustainable development goals more in line with resilience theory, although the Plan itself is considered a mixed success. Susan Charnley, formerly of the U.S. Department of Agriculture, said of the Plan:

From a social perspective, the Northwest Forest Plan as a model for broad-scale ecosystem management is perhaps most valuable in its attempt to link the biophysical and socioeconomic goals of forest management by creating high-quality jobs for residents of forest communities in restoration, research, monitoring, and other forest stewardship activities that protect the environment.

Susan Charnley, *The Northwest Forest Plan as a Model for Broad-Scale Ecosystem Management: A Social Perspective*, 20 CONSERVATION BIOLOGY 330, 338 (2006).

rather than all or part of a framework in and of itself. Both environmental justice and sustainable development are “normative conceptual framework[s]” that are in turn embodied in law in various ways, sometimes simply as policy goals.<sup>137</sup> Just transitions can join their ranks as such a principle as well, offering an additional equitable priority, or a more concrete framework for decisionmaking.

In general, environmental law scholars have increasingly recognized the need to account for the jobs question, rather than to dismiss it.<sup>138</sup> As Richard Lazarus articulates, “there has been at best only an ad hoc accounting of how the benefits of environmental protection are spread among groups of persons.”<sup>139</sup> Environmental law scholars have recently contemplated how to overcome the perception and reality of “zero-sum” environmentalism, in which some segments of society must lose, or think they are losing, in pursuit of environmental progress.<sup>140</sup> This realization has come about at the same time as the recognition that environmental law is overall inadequate in the face of climate change.<sup>141</sup> The placement of just transitions into the framework above helps address both these concerns. It provides a way to think about contemplating livelihoods in environmental decisionmaking, as well as making decisionmaking align better with social-ecological systems.

#### B. FOSSIL FUEL-DEPENDENT COMMUNITIES: AN EXEMPLARY CASE STUDY FOR JUST TRANSITIONS

The discussion in this Section examines what, exactly, is meant by “fossil fuel-dependent communities” and why they have prompted so much interest in just transitions in the climate change era. Many communities that depend on high-carbon industries have a unique history and relationship to work, and many have borne profound costs associated with energy production for over a century.<sup>142</sup> Yet the rest of society has alternately encouraged, acquiesced in, or benefited from this hazardous, economically depleting way of life.<sup>143</sup> Based on these troubling circumstances, this Section argues that the labor-driven just transition concept is legitimate because it is fair to these specific communities. A critical point is to understand that fossil fuel-dependent communities were not born in a vacuum. They were created.

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137. See Cheever & Dembach, *supra* note 81, at 251.

138. Flatt & Payne, *supra* note 7, at 1079.

139. Lazarus, *supra* note 27, at 787.

140. Baker et al., *supra* note 11.

141. Craig & Ruhl, *supra* note 134.

142. Bell & York, *supra* note 40.

143. Anne Marie Lofaso, *What We Owe Our Coal Miners*, 5 HARV. L. & POL'Y REV. 87, 87 (2011).

This discussion uses Appalachia as an example, but its story is relevant to comparable scenarios throughout the country.<sup>144</sup>

As early as the 1700s, companies played a central role in developing isolated Appalachian mono-economies, or monopsonies, where workers and communities became hostage to desperate dependency relationships.<sup>145</sup> The dependence stemmed in part from a rush of speculators in the 1800s seeking to acquire Appalachian land.<sup>146</sup> Locals, mostly subsistence farmers, did not know the worth of the minerals under their land and sold property interests for well under market value.<sup>147</sup> “Others who refused to sell their land became victims of legal traps, such as being jailed and then offered bond in exchange for their land.”<sup>148</sup>

Appalachia evolved into what some scholars call an “internal colony” or a “sacrifice zone,” which was “created to provide cheap resources to fuel the rest of the country.”<sup>149</sup> Companies dominated land ownership and isolated communities from penetration by other industries.<sup>150</sup> Through isolating people and dispossessing them of land, coal companies sought to turn local residents “into a docile workforce” that lived and breathed extractive work, residing in company towns and coal camps and paid in “scrip” instead of money.<sup>151</sup> While company towns are no longer the norm, the effects of these relationships are still felt in Appalachia today. Yet this was all in the name of “the greater good,”<sup>152</sup> with fossil fuel communities serving as the nation’s cheap energy powerhouse.<sup>153</sup>

Serving as the nation’s energy powerhouse has been costly. For decades, coal miners have lost their lives in and because of the mines.<sup>154</sup> Some of these deaths were in major disasters that caught the public’s attention, but most of them were a regular procession of daily accidents and health harms.<sup>155</sup> These hazards are not a phenomenon of history, either. “Between 1996 and 2005, nearly 10,000 miners died of black lung

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144. See, e.g., discussion *infra* Section IV.C about Native American community in mixed environmental justice/economic dependency relationship with coal-fired power plant.

145. Ann M. Eisenberg, *Beyond Science and Hysteria: Reality and Perceptions of Environmental Justice Concerns Surrounding Marcellus and Utica Shale Gas Development*, 77 U. PITT. L. REV. 183, 199 (2015); see also Bell & York, *supra* note 40, at 119.

146. Bell & York, *supra* note 40, at 119.

147. *Id.*

148. *Id.*

149. *Id.*

150. *Id.*

151. *Id.* at 120.

152. Lofaso, *supra* note 143, at 88.

153. Bell & York, *supra* note 40, at 119–20.

154. Lofaso, *supra* note 143, at 89.

155. *Id.*

disease.”<sup>156</sup> As of this writing, black lung rates have in fact been rising.<sup>157</sup> Yet the costs have not been limited to miners themselves. Residents living near mountaintop removal sites suffer high rates of disease and morbidity.<sup>158</sup> In addition to compromised health and safety, residents of fossil fuel communities have seen the destruction of irreplaceable cultural and ecological resources, as well as entrenched poverty and limited economic alternatives.<sup>159</sup>

Yet throughout the evolution of this exploitative dynamic, these relationships were encouraged and actively supported by the rest of the country through law and policy, evolving with the knowledge and acquiescence of the larger political body despite intermittent recognition of Appalachian problems. When coal miners sought to improve their conditions in the early twentieth century, federal actors intervened on behalf of companies.<sup>160</sup> In *Hitchman Coal & Coke Co. v. Mitchell*, the Supreme Court sanctioned mine operators’ power to contract with workers to prevent unionization.<sup>161</sup> In the 1921 Battle of Blair Mountain, the United States Army intervened to stop an uprising of miners, after which the Army left West Virginia to resolve the conflict internally, much to the detriment of the miners.<sup>162</sup> Black lung, a “chronicle of a preventable disease that was not prevented,” was ignored by state and federal public health authorities for most of the twentieth century “[d]espite the fact that physicians working among coal miners in the nineteenth century recognized and called attention to . . . [this] public health disaster.”<sup>163</sup> These egregious conditions notwithstanding, throughout the twentieth century, tax incentives and subsidies to the fossil fuel industry became a part of law.<sup>164</sup> As of 2017, the federal government continued to support fossil fuel production with \$14.7 billion in subsidies, and state governments provided a total of \$5.8 billion in incentives.<sup>165</sup>

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156. *Id.*

157. David J. Blackley et al., *Continued Increase in Prevalence of Coal Workers’ Pneumoconiosis in the United States, 1970-2017*, 108 AM. J. OF PUB. HEALTH 1220, 1221 (2018).

158. APPALACHIAN VOICES, THE HUMAN COST OF MOUNTAINTOP REMOVAL COAL MINING: MAPPING THE SCIENCE BEHIND HEALTH AND ECONOMIC WOES OF CENTRAL APPALACHIA 1 (2012).

159. See generally CHAD MONTRIE, TO SAVE THE LAND AND THE PEOPLE: A HISTORY OF OPPOSITION TO SURFACE COAL MINING IN APPALACHIA (2003).

160. Lofaso, *supra* note 143, at 94–95.

161. *Hitchman Coal & Coke Co. v. Mitchell*, 245 U.S. 229, 250–52 (1917).

162. Evan Andrews, *The Battle of Blair Mountain*, HISTORY (Aug. 25, 2016), <http://www.history.com/news/americas-largest-labor-uprising-the-battle-of-blair-mountain>.

163. Brian C. Murchison, *Due Process, Black Lung, and the Shaping of Administrative Justice*, 54 ADMIN. L. REV. 1025, 1026 (2002).

164. Mona L. Hymel, *Environmental Tax Policy in the United States: A “Bit” of History*, 3 ARIZ. J. ENVTL. L. & POL’Y 157, 162 (2013).

165. JANET REDMAN, OIL CHANGE INT’L, DIRTY ENERGY DOMINANCE: DEPENDENT ON DENIAL:

Meanwhile, coal communities' suffering was not unknown. Congress made a show of helping Appalachian residents with measures such as the Surface Mining Control and Reclamation Act ("SMCRA"). Yet SMCRA "has fallen far short of its potential;"<sup>166</sup> indeed, with provisions providing for oversight by states known to be dominated by industry,<sup>167</sup> it could hardly be deemed an earnest effort to remedy Appalachian suffering. Similarly, the Black Lung Benefits Act of 1973 nominally addressed black lung, only to help a mere 7.6% of claimants in "a system that miners, unable to attract attorneys and financially incapable of matching the coal companies' development of medical evidence, wholeheartedly despise[d] as unjust."<sup>168</sup>

U.S. society thus has a decades-long tradition of propping up the fossil fuel industry and acquiescing in its creation of exploitative mono-economies. Viewed in this light, workers' and communities' anticipation or hope that support might continue for their sole economic lifeline seems less unreasonable than if one views that anticipation standing alone in the context of today's changed markets, or viewed through the lens of communities with more resources or alternative options.<sup>169</sup> The argument that fossil fuels are harmful and that people simply have to find other jobs overlooks a longstanding history of exploitation and isolation, an abusive tradition from which the majority has benefited. A swift, unmitigated shift away from these industries stands to exacerbate the injustices that fossil fuel communities have already experienced. The transition has, in fact, already begun, and fossil fuel communities have not fared well.<sup>170</sup> Coal country has already lost a substantial portion of employment opportunities, and with those lost jobs have come lost tax resources, businesses, population, and spirit.<sup>171</sup>

One might argue that this is the nature of economic developments: markets change and workers and communities who bear the losses of those

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HOW THE U.S. FOSSIL FUEL INDUSTRY DEPENDS ON SUBSIDIES AND CLIMATE DENIAL 5 (2017).

166. Mason Adams, *A 40-Year-Old Federal Law Literally Changed the Appalachian Landscape*, W.VA. PUB. BROADCASTING (Aug. 5, 2017), <http://wvpublic.org/post/40-year-old-federal-law-literally-changed-appalachian-landscape#stream/0>.

167. See Robert E. Beck, *The Current Effort in Congress to Amend the Surface Mining Control and Reclamation Act of 1977 (SMCRA)*, 8 FORDHAM ENVTL. L.J. 607, 617–18 (1997).

168. Murchison, *supra* note 163, at 1027.

169. Cf. Bailey H. Kuklin, *The Plausibility of Legally Protecting Reasonable Expectations*, 32 VAL. U. L. REV. 19, 19 (1997) ("[E]xpectations, particularly reasonable expectations, are at the heart of many legal doctrines. Contract, property and tort claims are often justified on the grounds that they protect reasonable expectations.").

170. See, e.g., Chris McGreal, *America's Poorest White Town: Abandoned by Coal, Swallowed by Drugs*, GUARDIAN (Nov. 12, 2015), <https://www.theguardian.com/us-news/2015/nov/12/beattyville-kentucky-and-americas-poorest-towns>.

171. See Annalyn Censky, *Coal 'Ghost Towns' Loom in West Virginia*, CNN MONEY (May 26, 2011), [http://money.cnn.com/2011/05/26/news/economy/west\\_virginia/index.htm](http://money.cnn.com/2011/05/26/news/economy/west_virginia/index.htm).

transitions must adapt, evolve, and potentially relocate. Yet attempts to distinguish between the public and private spheres in this context ring hollow. First, fossil fuel workers and communities have been engaged in what should be characterized as quasi-public activity.<sup>172</sup> While their contributions to the nation's energy supply were through direct relationships with private companies, those companies were empowered by the public. The workers' and communities' labor and losses fueled a public electricity grid and provided fundamental public benefits for which they bore immeasurable externalized costs.

Second, one would be hard-pressed to disentangle the diverse public and private factors that converge to shape discrete sectors, especially in the energy context.<sup>173</sup> Many have pointed to the cheapness of natural gas as a driving force undermining the coal industry in order to suggest that coal's decline is a private phenomenon not warranting mitigation.<sup>174</sup> However, Congress's decision to impose minimal regulations on the natural gas industry was an intentional public policy development that shaped the status quo in foreseeable ways.<sup>175</sup>

These circumstances illustrate that, if nothing else, principles of fairness and equity weigh in favor of a just transition for these communities. Yet these principles also implicate some of the basic premises of our legal system. Communities' expectations and reliance have been encouraged, even coerced, through law and policy. While formal legal avenues have been of little help to them—to demand, for instance, the delayed closure of a plant, collective compensation for environmental degradation to the region, or

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172. See Patrick McGinley, *Collateral Damage: Turning a Blind Eye to Environmental and Social Injustice in the Coalfields*, 19 J. ENVTL. & SUSTAINABILITY L. 305, 425 (2013) (noting that coal country's sacrifice "ha[s] helped power and build a nation").

173. Kaplow, *supra* note 31, at 534 ("[M]ost commentators . . . defend mitigation of government risks, but not of market risks. Yet none of the distinctions they offer for treating government and market risks differently withstands scrutiny . . . [T]here is little to distinguish losses arising from government and market risk.").

174. TREVOR HOUSER ET AL., COLUMBIA CTR. ON GLOBAL ENERGY POLICY, CAN COAL MAKE A COMEBACK? *passim* (2017), [https://energypolicy.columbia.edu/sites/default/files/Center\\_on\\_Global\\_Energy\\_Policy\\_Can\\_Coal\\_Make\\_Comeback\\_April\\_2017.pdf](https://energypolicy.columbia.edu/sites/default/files/Center_on_Global_Energy_Policy_Can_Coal_Make_Comeback_April_2017.pdf); Matt Egan, *What Killed Coal? Technology and Cheaper Alternatives*, CNN (Aug. 21, 2018), <https://money.cnn.com/2018/08/21/investing/coal-power-trump-epa/index.html>; Andrew Sorensen, *Natural Gas and Wind Energy Killed Coal, Not 'War on Coal'*, CU BOULDER TODAY (May 7, 2018), <https://www.colorado.edu/today/2018/05/07/natural-gas-and-wind-energy-killed-coal-not-war-coal>.

175. Eisenberg, *Beyond Science and Hysteria*, *supra* note 145, at 207 (discussing exemptions for hydraulic fracturing in federal environmental statutes); see also Michael Pappas, *A Right to be Regulated?*, 24 GEO. MASON L. REV. 99, 118–20 (2016) (arguing that regulatory changes may destroy the value of previously regulated utilities); cf. Christopher Serkin, *Passive Takings: The State's Affirmative Duty to Protect Property*, 113 Mich. L. Rev. 345, 372–74 (2014) ("The harm resulting from inaction can be just as damaging as the harm resulting from overt action.").

meaningful assistance with the black lung pandemic—the ethical impetus to help these communities transcends a mere nicety.

Several lines of scholarship have insisted upon the materiality of expectations at the community level. Joseph Sax was concerned with community reliance and formal property law’s silence on communities.<sup>176</sup> He argued “that the law offered no opportunity even to raise a question about the non-economic losses incurred when an established community is destroyed . . . for ‘just compensation’ includes only the value of the economic interests taken.”<sup>177</sup> He noted that:

there *is* a widespread sense that community is important, and a willingness exists to protect community interests; yet there is no principle or doctrine to which to turn in those cases where, for whatever reasons, the people affected are unable to generate the political support necessary to induce an act of grace.<sup>178</sup>

Sax argued that “[t]he idea of justice at the root of private property protections calls for identification of those expectations which the legal system *ought* to recognize,” including at the community level.<sup>179</sup>

The concern for community reliance evokes the related concern that frustrated expectations can lead to social instability and political upheaval.<sup>180</sup> For instance, Sax argued that the public trust doctrine was not merely a state’s obligation to conserve natural resources, as many understand it, but is also a means of marrying customs with formal law in order to respect common expectations and ward off social unrest.<sup>181</sup>

This line of thinking seems to suggest that where formal law fails to recognize the meaningful nature of coal communities’ reliance upon their way of life, the lens of first principles illuminates the way of life as meaningful and worth respecting. The reasons for undermining that way of life seem meaningful too. Fossil fuel communities have already been sacrificed for the sake of collective progress through their energy production activities. They stand to be sacrificed anew if their majoritarian-encouraged dependency relationships are ignored in the transition to clean energy, as state and federal policy drivers continue to curtail or undermine these

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176. Joseph L. Sax, *Do Communities Have Rights—The National Parks as a Laboratory of New Ideas*, 45 U. PITT. L. REV. 499, 499 (1983).

177. *Id.*

178. *Id.* at 500.

179. Joseph Sax, *Liberating the Public Trust Doctrine from Its Historical Shackles*, 14 U.C. DAVIS L. REV. 185, 187 (1980) (emphasis added).

180. *See id.* at 186–88.

181. *Id.*

communities' economic activities in the name of collective progress.<sup>182</sup>

While the majority's willingness to destroy coal communities' dependency relationships is not a "takings," it nonetheless raises the prospect of a discrete minority being sacrificed for "the greater good"—an approach to progress that legal ethicists have considered at best morally questionable.<sup>183</sup> Indeed, when federal legislators passed provisions of the Trade Act of 1974 to offset displacement caused by reduced restrictions on trade,<sup>184</sup> one decisionmaker reasoned, "much as the doctrine of eminent domain requires compensation when private property is taken for public use," increased fair trade required compensation to displaced workers.<sup>185</sup> "Otherwise the costs of a federal policy [of free trade] that conferred benefits on the nation as a whole would be imposed on a minority of American workers."<sup>186</sup>

It might be suggested that Appalachia and other carbon-dependent communities are not unique in their situation. Workers in the United States are often displaced and left vulnerable for a variety of reasons including changes in technology, new trade regimes, other policy developments, or the absence of legal protections.<sup>187</sup> This comparison is worthwhile. The story of Appalachia, while unique in some respects, shares many analogies, as with tenants and sharecroppers who were displaced by the mechanization of the cotton harvest, plant employees who lost manufacturing jobs when businesses moved overseas, and aerospace workers who were displaced during the 1990s with the end of the cold war, to name some examples.<sup>188</sup> The question becomes one of drawing lines. Where takings analyses stop, economic transitions begin. We ask people to bear the costs of the latter, not the former, and by not recognizing property interests in work,<sup>189</sup> we disfavor

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182. Cf. LEGAL PATHWAYS TO DEEP DECARBONIZATION IN THE UNITED STATES (Michael B. Gerrard & John C. Dernbach eds. 2018); Chris Bataille et al., *The Need for National Deep Decarbonization Pathways for Effective Climate Policy*, 16 CLIMATE POL'Y 1 (2016).

183. See Frank Michelman, *Property, Utility, and Fairness: Comments on the Ethical Foundations of "Just Compensation" Law*, 80 HARV. L. REV. 1180–81 (1967).

184. Erin Fleaheer Rogers, *Agricultural Trade Adjustment Assistance: Food for Thought on the First Decade of the Newest Trade Adjustment Assistance Program*, 23 FED. CIR. B.J. 561, 562 (2014).

185. *Int'l Union v. Marshall*, 584 F.2d 390, 395 (D.C. Cir. 1978).

186. *Id.*

187. See, e.g., Malcolm Bale & John Mutti, *Income Losses, Compensation, and International Trade*, 13 J. HUM. RESOURCES 278, 283–84 (1978); Joseph Singer, *The Reliance Interest in Property*, 40 STANFORD L. REV. 3 (1988); Seth Mydans, *Displaced Aerospace Workers Face Grim Future in California Economy*, N.Y. TIMES (May 3, 1995), <https://www.nytimes.com/1995/05/03/us/displaced-aerospace-workers-face-grim-future-in-california-economy.html>. See generally DOES REGULATION KILL JOBS? (Cary Coglianese et al., eds. 2015).

188. See Bale & Mutti, *supra* note 187; Singer, *supra* note 187; Mydans, *supra* note 187.

189. Philip Levine, *Towards a Property Right in Employment*, 22 Buff. L. Rev. 1081 (1973); Robert Meltz, *Takings Law Today: A Primer for the Perplexed*, 34 Ecology L.Q. 307, 321 (2007). Takings

the property-less in decisions as to who receives compensation.<sup>190</sup>

This line-drawing may make sense. Otherwise, it could become cost-prohibitive to pass new laws. Yet certain factors weigh in favor of contemplating either more effective transitional policies or more robust baseline protections for workers and communities. First, as technology continues to evolve and render more work obsolete, the future will be replete with ongoing displacement.<sup>191</sup> As more and more people and professions are displaced, it seems unrealistic to assume that the supply of work will match the demand for it. Second, the egregious ramifications of the transition away from coal indicate that asking those workers and communities to bear the losses, adapt, and relocate has simply not worked for a substantial segment of those communities. While such a proposed allocation of losses may make sense in theory, in practice, the result has been poverty, deaths of despair, and regional stagnation.<sup>192</sup>

To be clear, none of this discussion is intended to suggest that deep decarbonization should not be pursued as swiftly and effectively as possible. The question of livelihoods should not hold the broader community hostage to the dire fate associated with a failure to reduce carbon emissions adequately.<sup>193</sup> This is also not a call for some form of reparations, especially considering other communities, such as indigenous populations and the descendants of slaves, whose under-acknowledged exploitation also fueled

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jurisprudence does not recognize as property “the mere ability to conduct a business, as something separate from the business’ assets” or “permits and licenses if nontransferable and revocable.” Meltz, *Takings Law Today*, *supra*, at 321. In a 1933 opinion in *Lynch v. United States*, the Court held that valid contracts could be property for takings purposes. *Lynch v. United States*, 292 U.S. 571, 571 (1933). In 1995, however, the U.S. Court of Appeals for the Seventh Circuit observed that the Court effectively overruled *Lynch* in 1986 “to the extent that [*Lynch*] flatly holds that contracts are property that the government may not take without compensation . . . [an] analysis [that] does not resemble the takings jurisprudence of today.” *Pro-Eco, Inc. v. Bd. of Comm’rs of Jay Cty., Ind.*, 57 F.3d 505, 510 n.2 (7th Cir. 1995) (discussing *Connolly v. Pension Benefit Guarantee Corp.*, 475 U.S. 211 (1986)).

190. Doremus, *supra* note 31, at 3 (“Regulatory takings claims are fundamentally conflicts over legal transitions. They arise when the rules change, those changes are costly (in economic or other terms), and the people bearing the costs believe that they are being unfairly singled out.”).

191. James Manyika et al., *Jobs Lost, Jobs Gained: What the Future of Work Will Mean for Jobs, Skills, and Wages*, MCKINSEY GLOBAL INST. (Nov. 2017), <https://www.mckinsey.com/featured-insights/future-of-work/jobs-lost-jobs-gained-what-the-future-of-work-will-mean-for-jobs-skills-and-wages>; James Doubek, *Automation Could Displace 800 Million Workers Worldwide by 2030, Study Says*, NAT’L PUB. RADIO (Nov. 30, 2017), <https://www.npr.org/sections/alltechconsidered/2017/11/30/567408644/automation-could-displace-800-million-workers-worldwide-by-2030-study-says>.

192. See, e.g., Maggie Fox, *Death Maps Show Where Despair Is Killing Americans*, NBC (Mar. 13, 2018), <https://www.nbcnews.com/health/health-news/death-maps-show-where-despair-killing-americans-n856231>; Alec MacGillis, *The Original Underclass*, ATLANTIC (Sept. 2016), <https://www.theatlantic.com/magazine/archive/2016/09/the-original-underclass/492731>.

193. Cf. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, SUMMARY FOR POLICYMAKERS OF IPCC SPECIAL REPORT ON GLOBAL WARMING OF 1.5C APPROVED BY GOVERNMENTS (2018), [https://www.ipcc.ch/pdf/session48/pr\\_181008\\_P48\\_spm\\_en.pdf](https://www.ipcc.ch/pdf/session48/pr_181008_P48_spm_en.pdf).

national wealth in even more dire ways. The argument is rather that fossil fuel communities have already borne loss after loss to the benefit of others. To ask them to bear yet another disproportionate loss in the clean-energy transition on behalf of the rest of society would be to effectuate yet another distributive injustice. In other words, these communities should not be forgotten in the decarbonization calculus. They deserve a just transition.

### C. A POLITICAL ECONOMY THEORY OF JUST TRANSITIONS

This Section explores a pragmatic and strategic argument in favor of embracing the just transition concept. In short, the United States is in urgent need of environmental and climate policy reform at the federal, state, and local levels.<sup>194</sup> Reform is often unachievable, however, because of entrenched political obstacles.<sup>195</sup> This Section argues that the pursuit of law and policy informed by just transitions principles may be more achievable than more traditional modes of seeking environmental reform.

Most scholars now agree that environmental reform had a zenith of sorts, and that the zenith has passed.<sup>196</sup> The late 1960s and early 1970s saw the passage of the Clean Air Act, the Clean Water Act, the Comprehensive Environmental Response, Compensation, and Liability Act, and the Resource Conservation and Recovery Act.<sup>197</sup> Still today, these major federal statutes make up the foundation of the environmental legal apparatus. The reforms largely came out of a national social movement.<sup>198</sup> Reacting to works such as Rachel Carson's *Silent Spring*<sup>199</sup> and the incident of the Cuyahoga River catching fire,<sup>200</sup> the public realized that their welfare in part depended upon some measure of environmental protection.<sup>201</sup>

Sporadic successes have been achieved since the peak of environmental reform. As recently as 1993, Daniel Farber observed how environmentalism's successes undermined the idea that interest groups could warp governmental policy through lobbying.<sup>202</sup> He explained:

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194. Ruhl, *supra* note 12, at 392.

195. See Todd S. Aagaard, *Environmental Law Outside the Canon*, 89 IND. L.J. 1239, 1241 (2014).

196. *Id.* at 1240.

197. *Id.* at 1251–54.

198. Zygmunt J.B. Plater, *From the Beginning, a Fundamental Shift of Paradigms: A Theory and Short History of Environmental Law*, 27 LOY. L.A. L. REV. 981, 1002 (1994).

199. See generally RACHEL CARSON, *SILENT SPRING* (1962).

200. Jonathon Adler, *The Fable of the Burning River, 45 Years Later*, WASH. POST (June 22, 2014), [https://wapo.st/1lgHyz8?tid=ss\\_tw&utm\\_term=.e1b92a32a102](https://wapo.st/1lgHyz8?tid=ss_tw&utm_term=.e1b92a32a102).

201. Plater, *supra* note 198 *passim*.

202. See Daniel A. Farber, *Politics and Procedure in Environmental Law*, 8 J.L. ECON. & ORG. 59, 60 (1992).

[A]ir pollution legislation benefits millions of people by providing them with clean air; it also imposes heavy costs on concentrated groups of firms. The theory predicts that the firms will organize much more effectively than the individuals, and will thereby block the legislation. We would also expect to find little regulation of other forms of pollution. Similarly, we would also expect firms to block legislation limiting their access to public lands. Thus, the two basic predictions are that environmental groups will not organize effectively and that environmental statutes will not be passed.<sup>203</sup>

Yet Farber concluded that “the reality is quite different.”<sup>204</sup> “Environmental groups manage to organize quite effectively. . . . Nor, obviously, is there any dearth of federal environmental legislation.”<sup>205</sup> He thus argued that “the political system manages to overcome the inherent advantages of special interests.”<sup>206</sup>

A more recent article by the same author recognizes a largely different status quo, however. In his 2017 article, *The Conservative as Environmentalist*, Farber recognizes that interest groups do indeed now stand in the way of environmental reform.<sup>207</sup> He suggests that conservatives’ shift away from moderate environmental sympathies over the past several decades can be explained by the “emergence of a coalition of disaffected westerners and business interests (particularly in the fossil-fuel industry) supported by an interlocking network of foundations, donors, and conservative-policy advocates.”<sup>208</sup>

A movement does exist today that is not all that different from the environmental movement of the 1960s and 70s.<sup>209</sup> Much of the American public is deeply concerned about climate change.<sup>210</sup> The movements for climate reform and related principles, such as climate justice and energy justice, use activism, litigation, and lobbying to pursue much-needed

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203. *Id.*

204. *Id.*

205. *Id.*

206. *Id.* at 61.

207. Daniel A. Farber, *The Conservative as Environmentalist: From Goldwater and the Early Reagan to the 21st Century*, 59 ARIZ. L. REV. 1005, 1007 (2017).

208. *Id.*

209. See generally Jonathan Mingle, *Fighting for the Future*, 5 ENVIRONMENT@HARVARD 1 (2013).

210. Lydia Saad, *Global Warming Concern at Three-Decade High in U.S.*, GALLUP (Mar. 14, 2017), <http://news.gallup.com/poll/206030/global-warming-concern-three-decade-high.aspx>; Robinson Meyer, *What Americans Really Think About Climate Change*, ATLANTIC (Apr. 22, 2017), <https://www.theatlantic.com/science/archive/2017/04/climate-polling-burnout/523881>.

changes.<sup>211</sup> Many successes have been achieved.<sup>212</sup> Most commentators concede, however, that progress to date has simply been inadequate to ward off the disastrous effects of climate change.<sup>213</sup>

Anti-environmental forces today seem to have become more powerful than in prior eras.<sup>214</sup> The fossil fuel industry manages to undermine the environmental movement even at the grassroots level.<sup>215</sup> Pat McGinley describes, for example, the so-called “War on Coal” campaign, a massive, industry-financed public relations effort “buttressed by think-tank studies” that has successfully fueled public antipathy toward environmental regulations.<sup>216</sup> According to sociologists Bell and York, despite its waning contributions to the economy and employment, the fossil fuel industry manages to “gain[] compliance from substantial segments of the public” by “actively construct[ing] ideology that furthers its interests.”<sup>217</sup>

As the fossil fuel industry and conservative politicians have joined forces, labor and workers’ groups have often sided with them.<sup>218</sup> According to sociologist Brian Obach, “workers are not typically the lead opponents of environmental measures.”<sup>219</sup> Rather, industry executives recruit workers with the threat of layoffs or total shutdowns of operations. In addition, as “a threat to corporate profits” is not particularly concerning to the public, workers also become the more sympathetic faces of environmental opposition.<sup>220</sup>

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211. Sebastien Malo & Sophie Hares, *On the Boil: Five Climate Lawsuits to Watch in 2018*, REUTERS (Dec. 27, 2017), <https://www.reuters.com/article/us-global-climatechange-lawsuit-factbox/on-the-boil-five-climate-lawsuits-to-watch-in-2018-idUSKBN1EM0J7>.

212. For example, California achieved its 2020 target for reduced greenhouse gas emissions four years early, see CAL. AIR RESOURCES BOARD, CALIFORNIA GREENHOUSE GAS EMISSIONS FOR 2000 TO 2016 (2008), [https://www.arb.ca.gov/cc/inventory/pubs/reports/2000\\_2016/ghg\\_inventory\\_trends\\_00-16.pdf](https://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2016/ghg_inventory_trends_00-16.pdf), plaintiffs seeking more stringent regulations have succeeded in litigation based on the Clean Air Act, the Endangered Species Act, and the California Environmental Quality Act, see Sabrina McCormick et al., *Strategies In and Outcomes of Climate Change Litigation in the United States*, 8 *Nature Climate Change* 829 (2018), and major cities have committed to aggressive greenhouse gas reductions as well as the goal of limiting global warming to one-and-a-half degrees Celsius, Milman et al., *The Fight Against Climate Change: Four Cities Leading the Way in the Trump Era*, GUARDIAN (June 12, 2017), <https://www.theguardian.com/cities/2017/jun/12/climate-change-trump-new-york-city-san-francisco-houston-miami>.

213. Ruhl, *supra* note 12, at 411–12.

214. ANDREW ROWELL, GREEN BACKLASH: GLOBAL SUBVERSION OF THE ENVIRONMENTAL MOVEMENT (1996).

215. Eisenberg, *Beyond Science and Hysteria*, *supra* note 145, at 200; Eisenberg, *Alienation and Reconciliation*, *supra* note 18, at 154.

216. McGinley, *supra* note 1702, at 316.

217. Bell & York, *supra* note 40, at 139.

218. BRIAN OBACH, LABOR AND THE ENVIRONMENTAL MOVEMENT: THE QUESTION FOR COMMON GROUND (2004).

219. *Id.* at 9.

220. *Id.* at 11.

Commentators have observed the largely untapped potential of collaboration between environmental and labor groups. The longstanding “work-environment” rift often puzzles scholars.<sup>221</sup> While jobs-versus-environment tensions serve to divide the two camps, other areas seem like they should be unifying—for instance, workplace safety, shared concerns about basic human needs, and as Doorey observes, the fact that both fields serve as checks on what would otherwise be “unbridled” corporate activity.<sup>222</sup>

One explanation for the rift is environmentalism’s association with the middle class and upper middle class. In its early days, the environmental movement was spurred in large part based on a philosophy embracing a veneration for nature.<sup>223</sup> As one activist articulates,

environmental heroes like John Muir, Teddy Roosevelt, and Aldo Leopold—and the romanticizing of wilderness through art, poetry, essays, and music—created a catalyst for men to see communing with nature as a way of defining their manhood. Exploration, solitude, and game hunting became the foundation for saving and preserving nature. But for whom was nature being saved?<sup>224</sup>

As the activist suggests, this philosophy arguably disregards the needs of society’s less privileged ranks, for instance, by failing to prioritize issues such as immediate access to clean drinking water, or being overly dismissive of livelihoods that depend on natural resources.<sup>225</sup> Pruitt and Sobczynski have argued, for example, that poor, white rural residents may be seen as “trash[ing] pristine nature by their very presence.”<sup>226</sup>

Yet, in the instances when labor and environmental groups have combined their efforts, these efforts have proven quite potent. Many attribute the passage of the Clean Air Act and the Clean Water Act to a coalition between workers and environmental organizations.<sup>227</sup> A prior article, *Alienation and Reconciliation in Social-Ecological Systems*, examined the fruitfulness of collaborative partnerships between ranchers and bird

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221. Eisenberg, *Alienation and Reconciliation*, *supra* note 18, at 140–47.

222. *Id.*; Doorey, *supra* note 9, at 221.

223. Jenna Hanson, *The Modern Environmental Movement’s Big Failure*, PAC. STANDARD (Apr. 17, 2015), <https://psmag.com/environment/the-modern-environmental-movements-big-failure>. *But see* Montrie, *supra* note 159 (discussing the untold history of popular opposition to environmental degradation).

224. Hanson, *supra* note 223.

225. *Id.*

226. Lisa R. Pruitt & Linda T. Sobczynski, *Protecting People, Protecting Places: What Environmental Litigation Conceals and Reveals About Ruralness*, 47 J. RURAL STUD. 326, 326 (2016).

227. Eisenberg, *Alienation and Reconciliation*, *supra* note 18, at 145.

conservationists on public lands.<sup>228</sup>

Compared with the fossil fuel industry, then, the modern environmental movement has two problems: (1) a power problem and (2) a branding problem. Pursuing more aggressive, concerted appeals to labor interests could help address both of these problems.

The power problem is evidenced in the modern environmental movement's inability to penetrate the thick web of interest groups that benefit from impeding climate reform and other environmental measures.<sup>229</sup> The political process is indeed "dominated by the rent-seeking activities of special-interest groups."<sup>230</sup> Naturally, coalitions and alliances stand to fare better than interest groups that work alone. While outreach to the fossil fuel industry may involve mere tilting at windmills given the industry's track record,<sup>231</sup> labor and environments' overlapping interests may have more potential to give climate advocates more allies and leverage.

But further, joining forces with workers' advocates could also help the environmental movement win more hearts and minds. As an example of why the branding of environmental reform matters, many conservatives said in one public opinion poll that they opposed the Obama administration's Clean Power Plan because they thought it would cost people jobs.<sup>232</sup> If the environmental movement addressed the jobs concern directly and in coordination with labor advocates—which they could do by lobbying for reform through the lens of the just transition—they could proactively address one of the arguments against environmental reform.

A potential concern in addressing work and labor more directly in environmental advocacy is that such efforts could result in sustaining livelihoods in hazardous industries and delaying much-needed environmental action. However, as discussed below, it is not necessarily contemplated that just transitions law and policy must entail actually sustaining hazardous industries; the more important principle is instead attempting to offset or mitigate some of the losses to livelihoods and communities as those industries' activities are curtailed. Further, even if some compromises were to be made, it is worth considering whether the

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228. *Id.*

229. Farber, *Politics and Procedure*, *supra* note 202, at 60.

230. *Id.*

231. *Cf.* KATHY MULVEY ET AL., UNION OF CONCERNED SCIENTISTS, THE CLIMATE ACCOUNTABILITY SCORECARD: RANKING MAJOR FOSSIL FUEL COMPANIES ON CLIMATE DECEPTION, DISCLOSURE, AND ACTION (2016), <https://www.ucsusa.org/sites/default/files/attach/2016/10/climate-accountability-scorecard-full-report.pdf>.

232. Eisenberg, *Alienation and Reconciliation*, *supra* note 18, at 173.

movement risks letting the perfect be the enemy of the good, and whether compromise outcomes may still be preferable to substantively preferable outcomes indefinitely delayed by political obstacles.<sup>233</sup>

### III. JUST TRANSITIONS AS LAW: FILLING IN THE CONTOURS

This Part asks what are perhaps the most challenging questions surrounding the prospect of embracing just transitions in law and policy: What, exactly, does a just transition look like? Who deserves a just transition? What are the avenues for achieving it?

A helpful starting point is the fact that the pursuit of just transitions is not entirely alien to United States law and policy. This Part therefore starts in Section III.A with a brief summary and critique of four of the most prominent instances when federal institutions have authorized transitional policy to address worker and community displacement: (1) the Trade Act of 1974 providing assistance to manufacturing workers displaced by reduced restrictions on trade; (2) the President's Northwest Forest Plan providing assistance to timber communities displaced by reductions in timbering on public lands; (3) the Tobacco Transition Payment Program assisting tobacco farmers displaced by public litigation against tobacco companies in the 1990s; and (4) the Obama administration's Partnerships for Opportunity and Workforce and Economic Revitalization ("POWER") Initiative assisting coalfield communities in the face of coal's decline.

Interestingly, only two of the programs—the Forest Plan and POWER—have an explicit environmental component. This suggests that in practice, the understanding of just transitions has not been simply as a corollary to environmental progress. Rather, the consistent conditions among these scenarios are (1) a dependency relationship between a community and an industry that is (2) undermined by some public action, or perhaps in the case of coal, public inaction. Section III.B therefore also explores other, non-environmental scenarios where just transitions may be warranted, such as the example of New York City taxi drivers being displaced by ride-sharing services, or of longstanding community residents facing displacement by gentrification. Section III.B also revisits the argument that the line between economic and legal transitions is often blurrier than some might suggest, indicating that a scenario should not necessarily require a clear act of direct public complicity in order to trigger a just transition.

Section III.C discusses instances of locally-driven approaches to just

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233. See generally Hari Osofsky & Jacqueline Peel, *Energy Partisanship*, 65 EMORY L.J. 695 (2016) (discussing how environmental reform may be possible by tempering partisanship).

transitions and posits that these examples offer important insights alongside the federal programs, particularly since the federal programs have, as a whole, not been considered particularly successful (while the effects of the POWER Initiative remain to be seen as of this writing). Local land use planning processes and similar mechanisms help account for the complex, interconnecting factors that shape mono-economies' dependency relationships. They thus may have benefits to offer as an alternative or complement to the standard practice of using federal agencies to implement transitional policy.

Finally, Section III.D offers additional thoughts as to how and when just transitions should be pursued and who should pay for them. Yet this discussion again raises the question of whether transitional policy is the answer for worker and community vulnerability in the face of climate change or in other contexts, or whether more robust baseline protections may be the simpler, more efficient approach. This latter approach may also be the fairer, more inclusive one, in that transitional policy directs resources to workers who are losing "good jobs," while other workers, particularly disproportionate numbers of women and people of color in the service industry, have benefited inequitably from such jobs in the first place.

#### A. FEDERAL TRANSITIONAL POLICIES

##### 1. The Trade Act of 1974

The Trade Act of 1962 established the Trade Adjustment Assistance Program ("TAA"), while the Trade Act of 1974 gave birth to the modern program still operational today.<sup>234</sup> The program has become a quid pro quo component of modern trade policy. That is, in order to open more trade avenues, more trade assistance for injured domestic workers is often a necessary political compensatory measure.<sup>235</sup>

Crafted in the name of fairness, the program's goal is to provide aid to workers who lose their jobs, hours of work, or wages because of increases in imports.<sup>236</sup> Congress was "of the view that fairness demanded some mechanism whereby the national public, which realizes an overall gain

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234. Trade Act of 1974, 19 U.S.C. § 2101 (2012); 20 C.F.R. § 617.2 (2018).

235. See, e.g., *Trade Adjustment Assistance for Workers*, EMP. & TRAINING ADMIN., <https://doleta.gov/tradeact> (last visited Feb. 5, 2019).

236. 19 U.S.C. § 2251(a) (2012); Rogers, *supra* note 184 ("While the program initially provided aid only to workers, businesses, and communities, it was expanded in 2002 to cover farmers and fishermen through the Agricultural Trade Adjustment Assistance program."); see also Stephen Kim Park, *Bridging the Global Governance Gap: Reforming the Law of Trade Adjustment*, 43 GEO. J. INT'L L. 797, 817–39 (2012) (discussing rationales for trade adjustment assistance).

through trade readjustments, can compensate the particular . . . workers who suffer a loss . . . .”<sup>237</sup> Returning to the idea that certain forms of displacement are ethically similar to takings, even if not cognizable as such in law, a federal court observed that TAA was pursued in as “much as the doctrine of eminent domain requires compensation when private property is taken for public use. Otherwise the costs of a federal policy [of free trade] that conferred benefits on the nation as a whole would be imposed on a minority of American workers . . . .”<sup>238</sup>

Individuals eligible under the program may file a petition to the U.S. Department of Labor within one year of losing work.<sup>239</sup> Once certified, workers are then eligible to apply for TAA program benefits, which are administered through state agencies.<sup>240</sup> The benefits include “weekly cash benefits, job retraining, and allowances for job searches or relocation.”<sup>241</sup> “According to [2011] White House statistics, the average worker receiving benefits is a 46 year-old male with a high school education who is the primary breadwinner for his family and has worked for at least ten years at a factory that is closing.”<sup>242</sup>

Since the program’s inception, however, studies have shown that trade adjustment benefits have simply not gone far enough to compensate displaced workers for their losses. In one survey of displaced shoe workers in the 1970s, researchers concluded that

even if benefits were granted to a larger number of workers, each individual would be compensated for only a very small portion of his actual loss. The actual payments have been characterized by organized labor as band-aid treatment, because the subsequent wage loss as well as the many nonmonetary losses from displacement are not directly addressed.<sup>243</sup>

More recently, economist Lori Kletzer found that almost forty percent

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237. Int’l Union, UAW v. Marshall, 584 F.2d 390, 395 (D.C. Cir. 1978).

238. *Id.*

239. 19 U.S.C. § 2271 (2012); *Petition Filing Frequently Asked Questions (FAQ)*, U.S. DEP’T OF LABOR (Aug. 31, 2018), [https://doleta.gov/tradeact/petitioners/FAQ\\_Answers.cfm#G4](https://doleta.gov/tradeact/petitioners/FAQ_Answers.cfm#G4).

240. *Investing in Trade-Affected Workers*, U.S. DEP’T OF LABOR (Aug. 31, 2018), <https://doleta.gov/tradeact/petitioners/petitionprocess.cfm>; see also BENJAMIN COLLINS, CONG. RES. SERV. TRADE ADJUSTMENT ASSISTANCE FOR WORKERS AND THE TAA REAUTHORIZATION ACT OF 2015 (2018), <https://fas.org/sgp/crs/misc/R44153.pdf> (“Individual benefits are funded by the federal government and administered by state agencies through their workforce systems and unemployment insurance systems.”).

241. Rogers, *supra* note 184, at 568.

242. *Id.* at 568–69.

243. Malcolm Bale & John Mutti, *Income Losses, Compensation, and International Trade*, 13 J. HUM. RESOURCES 278, 283–84 (1978).

of displaced workers did not find new jobs within one to two years after a job loss resulting from increased competition.<sup>244</sup> Another economist described trade assistance programs as “a collection of ad hoc, out-of-date, and inadequate programs that provide too little assistance too late to those in need.”<sup>245</sup> Legal scholars—who tend to treat TAA as a component of international trade law—have also critiqued trade adjustment assistance programs. Some deem TAA “a grave failure,” for reasons including “failures at the administrative and state levels, to Federal incompetence, to lack of resources and outreach for displaced workers,” as well as the inadequacy of judicial review available for workers unfairly denied assistance.<sup>246</sup> Its flaws notwithstanding, many agree that the program is preferable to not offering assistance at all and that reforms may stand to improve it.<sup>247</sup>

## 2. The President’s Northwest Forest Plan

The President’s Northwest Forest Plan (“NWFP”) was formed in the aftermath of a 1992 decision in which the U.S. District Court for the Western District of Washington imposed an injunction prohibiting over 66,000 acres of timber from being harvested on Washington public lands because of dangers the harvesting posed to the northern spotted owl.<sup>248</sup> The Ninth Circuit Court of Appeals upheld this and a series of related decisions.<sup>249</sup> The Clinton administration then developed the NWFP, aimed toward enhancing conservation in the region. In 1994, the Forest Service and the Bureau of Land Management adopted the NWFP.<sup>250</sup>

The circumstances surrounding the NWFP’s enactment were famously contentious.<sup>251</sup> This scenario is at times considered a classic case study of

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244. See LORI G. KLETZER, *JOB LOSS FROM IMPORTS: MEASURING THE COSTS* 78 (2001).

245. *Designing a National Strategy for Responding to Economic Dislocation: Hearing Before the Subcomm. on Investigations and Oversight of the H. Comm. on Science and Technology*, 110th Cong. 1 (2008) (testimony of Howard Rosen, Executive Director, Trade Adjustment Assistance Coalition).

246. Shana Fried, Note, *Strengthening the Role of the U.S. Court of International Trade in Helping Trade-Affected Workers*, 58 RUTGERS L. REV. 747, 748 (2006); see also Steven T. O’Hara, *Worker Adjustment Assistance: The Failure & The Future*, 5 NW. J. INT’L L. & BUS. 394, 395–96 (1983).

247. See Fran Ansley, *Standing Rusty and Rolling Empty: Law, Poverty, and America’s Eroding Industrial Base*, 81 GEO. L.J. 1757, 1881 (1993); see also Park, *supra* note 236 *passim*; Fried, *supra* note 246 *passim*.

248. *Seattle Audubon Soc’y v. Mosley*, 798 F. Supp. 1484, 1490 (W.D. Wash. 1992) (stating that endangering the northern spotted owl violated the National Forest Management Act, 16 U.S.C. § 1600).

249. See, e.g., *Portland Audubon Soc’y v. Lujan*, 795 F. Supp. 1489, 1510 (D. Or. 1992), *aff’d sub nom. Portland Audubon Soc’y v. Babbitt*, 998 F.2d 705 (9th Cir. 1993).

250. See *Am. Forest Res. Council v. Shea*, 172 F. Supp. 2d 24, (D.D.C. 2001); Michael C. Blumm & Tim Wigington, *The Oregon & California Railroad Grant Land’s Sordid Past, Contentious Present, and Uncertain Future: A Century of Conflict*, 40 B.C. ENVTL. AFF. L. REV. 1, 4–5 (2013); Robert B. Keiter, *Toward a National Conservation Network Act: Transforming Landscape Conservation on the Public Lands into Law*, 42 HARV. ENVTL. L. REV. 62, 122 (2018).

251. See, e.g., *Seattle Audubon Soc’y v. Lyons*, 871 F. Supp. 1291, 1307 (W.D. Wash. 1994)

“jobs versus environment.” Timber harvesters were outraged based on the perception that the habitat of a single species should wield such an impact on their livelihoods. Predictions of “economic devastation” followed the court decisions, with fears of “a new ‘Appalachia in the Northwest.’”<sup>252</sup> Environmentalists, meanwhile, saw the decisions as a necessary conservation win.

The economic concerns were not fictional. According to one commentator, “[n]o economic analysis [could] ignore the suffering of some rural communities, which [bore] the brunt of the economic pain associated with reduced federally subsidized timber supplies.”<sup>253</sup> When the injunction issued, it threw “between 60,000 and 100,000 people out of work.”<sup>254</sup> The NWFP sought to address some of this pain:

[It] extend[ed] assistance to workers and communities, payments to counties to compensate for reduced income, removal of tax incentives for the export of raw logs, and assistance to encourage growth and investment of small businesses and secondary manufacturing. Similarly, the Economic Adjustment Initiative . . . provided over \$550 million to aid communities and individuals affected by reduced timber harvests.<sup>255</sup>

The NWFP also illustrates the causal complexity of factors that influence regional decline. Because of automation, “many jobs in the federally subsidized timber industry were on their way out long before the owl was listed as threatened under the Endangered Species Act.”<sup>256</sup> Generally, “rural areas dependent on the federal land-based timber industry” were not faring as well as other regions as of the 1990s.<sup>257</sup> Nonetheless, federal actors saw fit to intervene in this scenario involving mixed technological, economic, and legal factors contributing to the decline.<sup>258</sup>

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(rejecting a challenge to the scope of the federal government’s discretion in adopting the legislation); Kristin Carden, *Bridging the Divide: The Role of Science in Species Conservation Law*, 30 HARV. ENVTL. L. REV. 165, 245–48 (2006).

252. Schiffer & Heep, *supra* note 55, at 577.

253. *Id.* at 582.

254. Paul Koberstein, *Will the Northwest Forest Plan Come Undone?*, HIGH COUNTRY NEWS (Apr. 7, 2015), <https://www.hcn.org/articles/will-the-northwest-forest-plan-come-undone>.

255. Schiffer & Heep, *supra* note 55, at 582. Charnley, *supra* note 136, at 286–87 (noting that the program met with mixed successes but suggesting that certain changes could have made it more successful); Michelle W. Anderson, *The Western, Rural Rustbelt: Learning from Local Fiscal Crisis in Oregon*, 50 WILLAMETTE L. REV. 465, 503 (2014) (noting that NWFP’s job development programs, focused on common phenomenon of overlap between areas with economic hardship and areas with at-risk species, indicate that economic development should be cornerstone of environmental activism).

256. Schiffer & Heep, *supra* note 55, at 577.

257. *Id.* at 582.

258. Carey Catherine Whitehead, *Wielding a Finely Crafted Legal Scalpel: Why Courts Did Not Cause the Decline of the Pacific Northwest Timber Industry*, 38 ENVTL. L. 979, 1012 (2008) (discussing intermingled factors contributing to decline of regional timber industry, and economists’ struggle to

The NWFP “never truly satisfied the warring factions, the timber industry and the environmentalists.”<sup>259</sup> However, it was considered an achievement for the Clinton administration.<sup>260</sup> Much analysis of the NWFP’s implementation has focused on its ecological successes. Yet, in all, “the NWFP has been more successful in stopping actions thought to be harmful to conservation . . . than it has been in promoting active restoration and adaptive management and in implementing economic and social policies set out under the plan.”<sup>261</sup>

The NWFP provided for “payments to timber-dependent counties suffering from cutbacks” due to the law’s implementation in 2000.<sup>262</sup> Since the NWFP’s implementation, counties formerly dependent on timber harvests for tax revenues have received millions of dollars.<sup>263</sup> Today, many of these counties are considered to be “in crisis” because of curtailments in direct federal subsidies.<sup>264</sup> The NWFP was criticized as failing to “provide long-term economic growth and security” for former timber counties.<sup>265</sup>

### 3. The Tobacco Transition Payment Program

The tobacco industry has several unique quirks, but the parallels between the tobacco industry and the fossil fuel industry are notable. Both industries have invested aggressively in science-denial and public relations initiatives, both have rendered entire communities dependent upon them, and both have seen major shifts in public awareness contribute to their decline.<sup>266</sup> In addition to increased anti-tobacco sentiment and knowledge of health risks among the public, a mass tort action against tobacco companies in the 1990s brought them to the brink of extinction—which perhaps signifies a parallel to ongoing climate-related litigation against fossil fuel companies.<sup>267</sup>

Because of the economic hardships associated with decreased tobacco

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separate effects of injunctions and general recession on regional timber industry).

259. Koberstein, *supra* note 254.

260. *Id.*

261. Jack Ward Thomas et al., *The Northwest Forest Plan: Origins, Components, Implementation Experience, and Suggestions for Change*, 20 CONSERVATION BIOLOGY 277, 283 (2006); see also Ted Helvoigt et al., *Employment Transitions in Oregon’s Wood Products Sector During the 1990s*, 101 J. FORESTRY 42, 42–46 (2003).

262. Michael C. Blumm & Tim Wigington, *The Past as Prologue to the Present Managing the Oregon and California Forest Lands*, OR. ST. B. BULL., July 2013, at 24, 25.

263. *Id.* at 27.

264. Anderson, *supra* note 255, at 470.

265. Blumm & Wigington, *supra* note 262, at 29.

266. Craig P. Raysor, *From the Sword to the Pen: A History and Current Analysis of U.S. Tobacco Marketing Regulations*, 13 DRAKE J. AGRIC. L. 497, 512, 525 (2008) (noting inter alia problem of non-diversification of tobacco farms in early twentieth century).

267. See *id.* See generally *Juliana v. United States*, 339 F. Supp. 3d 1062 (D. Or. 2018).

demand and government pushback against the tobacco industry, in the late 1990s, a settlement between states and large tobacco companies provided for billions of dollars of economic assistance to be paid to tobacco farmers.<sup>268</sup> The ten-year Tobacco Transition Payment Program (“TTPP”) was created to “ease tobacco farmers’ worries” and give them “time to diversify their crop to include other commodities separate from tobacco, or to allow [them] . . . to cease planting tobacco altogether.”<sup>269</sup> The TTPP also terminated a federal price-fixing program that had supported tobacco farmers since the 1930s.<sup>270</sup>

The TTPP is often referred to as a “buy-out” program.<sup>271</sup> However, the term is somewhat misleading because farmers were not necessarily paid to stop growing tobacco.<sup>272</sup> Tobacco producers received government assistance by signing up for the TTPP through the U.S. Department of Agriculture Commodity Credit Corporation, which “provide[d] payments to tobacco quota holders who voluntarily enter[ed] into appropriate contracts with the government”<sup>273</sup>—including for the cessation of tobacco production.<sup>274</sup> The TTPP provided eligible producers with ten equal annual payments “designed to transition tobacco producers into a free market for their produce.”<sup>275</sup>

The program’s effects were mixed and may be the subject of debate. The number of tobacco farmers was reduced dramatically just after deregulation was implemented.<sup>276</sup> Each participating farmer received on average a total of approximately \$17,000 over the course of the program, while 75% of payments went to the top ten percent of farms.<sup>277</sup> Some have

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268. 7 C.F.R. § 1463.1 (2018); Ryan D. Dreveskracht, *Forfeiting Federalism: The Faustian Pact with Big Tobacco*, 18 RICH. J.L. & PUB. INT. 291, 308 (2015).

269. Dreveskracht, *supra* note 268, at 308; *see also Tobacco Transition Payment Program: Examination Treatment of Assets Related to the Tobacco Transition Payment Program*, FED. DEPOSIT INS. CORP. (Aug. 3, 2005), <https://www.fdic.gov/news/news/financial/2005/fil7305.html>.

270. *Tobacco Transition Payment Program*, *supra* note 269; *see also* Fair and Equitable Tobacco Reform Act of 2004, Pub. L. No. 108-357, 118 Stat. 1521 (codified at 7 U.S.C. § 518 (2012)); JOSEPH C. ROBERT, *THE STORY OF TOBACCO IN AMERICA* 210 (1949).

271. *See, e.g., Tobacco Transition Payment Program*, U.S. DEP’T OF AGRIC., <https://www.fsa.usda.gov/FSA/webapp?area=home&subject=toba&topic=landing> (last updated Jan. 30, 2013).

272. *See generally* Helen Pushkarskaya & Maria I Marshall, *Lump Sum Versus Annuity: Choices of Kentucky Farmers During the Tobacco Buyout Program*, 41 J. AGRIC. AND APPLIED ECON. 613, 614 (2009).

273. 5 WEST’S FED. ADMIN. PRAC. *Income Support Programs—Tobacco* § 5510, Westlaw (database updated July 2018) [hereinafter *Income Support Programs—Tobacco*].

274. 7 U.S.C. § 518b (2012).

275. *Income Support Programs—Tobacco*, *supra* note 273.

276. Nathan Bomey, *Thousands of Farmers Stopped Growing Tobacco After Deregulation Payouts*, USA TODAY (Sept. 2, 2015), <https://www.usatoday.com/story/money/2015/09/02/thousands-farmers-stopped-growing-tobacco-after-deregulation-payouts/32115163>.

277. *Id.*

suggested that these payments offered important “injections of cash” for struggling rural communities.<sup>278</sup> On the other hand, the program may have had the effect of shackling some farmers to their crops involuntarily, as many were “unable to break free of the cycle of debt” associated with restructured relationships.<sup>279</sup> Some farmers, in response to the program, actually expanded their production of tobacco.<sup>280</sup>

The TTPP model may have some lessons to offer just transitions law and policy. The fact that the TTPP helped transition workers and communities away from a production activity that had been publicly subsidized for decades, with minimal public attention or controversy, seems like a success. At the very least, the TTPP recognized that the political majority was complicit in fostering farmers’ dependency on the hazardous activity through national legislative intervention since the 1930s, and complicit in undermining that dependency relationship.

On the other hand, the TTPP model’s slow-sunsetting approach may stand in direct tension with the urgency associated with decarbonization. It also seemed to rely somewhat on tobacco farmers’ capacity for autonomous decisionmaking over their own production activities, which may not apply to many other scenarios or address regional economic dependencies with necessary robustness.

#### 4. The POWER Initiative

In 2016, the Obama administration announced a nearly forty million dollar program for twenty economic and workforce development projects to assist communities affected by changes in the coal and power industry.<sup>281</sup> The POWER Initiative was a joint effort involving ten federal agencies with the goal of either creating or retaining several thousand jobs, in addition to broader economic development, such as economic diversification, attracting new sources of investment, and providing workforce services and skills training. Through the POWER Initiative, the Appalachian Regional Commission (“ARC”) and other agencies have received over \$100 million in appropriations to assist displaced coal workers.<sup>282</sup>

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278. *Id.*

279. Dreveskracht, *supra* note 268, at 312.

280. Blake Brown, *The End of the Tobacco Transition Payment Program*, N.C. ST. UNIV. (Nov. 14, 2013), <https://tobacco.ces.ncsu.edu/wp-content/uploads/2013/11/The-End-of-the-Tobacco-Transition-Payment-Program.pdf?fw=no>.

281. Press Release, Office of the Press Sec’y, Fact Sheet: Administration Announces New Economic and Workforce Development Resources for Coal Communities Through POWER Initiative (Aug. 24, 2016), <https://obamawhitehouse.archives.gov/the-press-office/2016/08/24/fact-sheet-administration-announces-new-economic-and-workforce>.

282. *POWER Initiative*, APPALACHIAN REGIONAL COMMISSION (last visited Feb. 5, 2019),

For instance, the ARC alone has received \$50 million from Congress since 2016 in order to:

target federal resources to help communities and regions that have been affected by job losses in coal mining, coal power plant operations, and coal-related supply chain industries due to the changing economics of America's energy production. To date, ARC has invested \$94 million in projects serving 250 coal impacted counties. These projects are expected to create or retain 8,800 jobs, train 25,400 workers or students, and leverage an additional \$210 million to the Region.<sup>283</sup>

ARC receives applications for funding from local governments, states, other political subdivisions, non-profit organizations, and institutions of higher education.<sup>284</sup> As of this writing, little commentary has assessed the program's outcomes. The proposed POWER Plus Plan, meanwhile, focused on more direct assistance to workers; yet it and similar proposals have failed to make their way through Congress.<sup>285</sup>

#### B. SYNTHESIZING FEDERAL TRANSITIONAL POLICIES

Several themes emerge from the programs above. These themes illuminate the conditions that have been considered appropriate for triggering intervention in pursuit of a just transition. These programs' strengths and weaknesses in design and implementation can also inform future efforts.

The first theme is that policymakers have implemented transitional policy when there is foreseeable, widespread displacement to workers as the result of some form of public action. Embedded in the foreseeable displacement is the existence of some kind of dependency relationship or longstanding regional mono-economy. This theme may explain why transitional support beyond unemployment benefits is not specifically provided when a sector like Blockbuster goes out of business: unlike with

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<https://www.arc.gov/funding/power.asp>; *ARC Seeks Funds for Coal-Impacted Communities*, FAYETTE TRIB. (Feb. 5, 2018), [http://www.fayetttribune.com/news/arc-seeks-funds-for-coal-impacted-communities/article\\_cbae624e-09dc-11e8-896a-1f98f0f3a842.html](http://www.fayetttribune.com/news/arc-seeks-funds-for-coal-impacted-communities/article_cbae624e-09dc-11e8-896a-1f98f0f3a842.html).

283. APPALACHIAN REG'L. COMM'N, FY 2019 PERFORMANCE BUDGET JUSTIFICATION 5 (2018), <https://www.arc.gov/images/newsroom/publications/fy2019budget/FY2019PerformanceBudgetFeb2018.pdf>.

284. *POWER Initiative*, *supra* note 282; *see also* APPALACHIAN REG'L COMM'N, POWER AWARDS, OCTOBER 2018, <https://www.arc.gov/images/grantsandfunding/POWER2018/ARCEconDiversificationAwardsSummaries10-11-2018.pdf>.

285. Richard L. Revesz, *Regulation and Distribution*, 93 N.Y.U. L. REV. 1489, 1550–55 (2018) (discussing both failed and implemented congressional and executive efforts to assist coal communities and workers, including the POWER Initiative (implemented), POWER Plus (failed), the Abandoned Mine Land Economic Revitalization (“AMLER”) Program (failed), and the Revitalizing the Economy of Coal Communities by Leveraging Local Activities and Investing More (“RECLAIM”) Act (failed)).

each of the sectors above, there are no company towns or regions where substantial portions of the population have been employed at Blockbuster for decades.

Critically, though, the programs do not require some sort of showing that a loss is the proximate result of an intentional public act. In fact, the Trade Act of 1974 specifically undid such a requirement imposed by the 1962 Act. The 1962 Act required that increased imports were the “major cause” of beneficiaries’ unemployment.<sup>286</sup> Yet it became clear shortly thereafter that most workers simply would not be able to meet such a burden.<sup>287</sup> One reason for the absence of a causality requirement is that economic and legal transitions in the United States are fundamentally entangled. Further, the absence of regulations may affect transitions in similar ways as the creation of regulations. As discussed above, commentators often point to the cheapness of natural gas as the “real” reason for the coal industry’s decline; yet Congress could easily have chosen to regulate natural gas more stringently or otherwise intervene into energy markets.

One weakness, at least with the NWFP and TAA, is that neither is considered to have achieved successful economic mitigation in the face of the loss being addressed. One reason for this may be that directing large aid packages to benefits such as relocation assistance will inevitably be a “band-aid” approach if those packages do not address the root cause of workers’ and communities’ vulnerability. The root cause is the development of the dependency relationship or mono-economy in the first place. In this sense, it is possible that federal actors—unless they create a New Deal-style form of transitional employment themselves—may be too detached from regional realities to meaningfully reshape a region. Similarly, the very nature of these programs may reflect a “too little, too late” approach to addressing longstanding histories of regional under-investment. The TTPP may have been more successful in part because many tobacco farmers were near retirement anyway, few depended solely on tobacco-farming income, and tobacco farmers may have been better able to exercise control over their own economic activities as compared to laid-off manufacturing or timber workers.<sup>288</sup>

The second problem with these programs is that as jobs like timbering

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286. Malcom Bale & John Mutti, *Income Losses, Compensation, and International Trade*, 13 J. HUM. RESOURCES 278, 280 (1978).

287. *Id.*

288. Brown, *supra* note 280.

and mining decline, no comparably lucrative, low-skill jobs are, in fact, available as alternatives for displaced workers. The three main traditional rural livelihoods—natural resource extraction, manufacturing, and farming—have declined dramatically.<sup>289</sup> The sectors that have taken their place are lower-paying positions in the service industry.<sup>290</sup> These positions lack the security, culture, and regional influence of the traditional livelihoods. Transitional policy geared toward moving a worker from a traditional livelihood to a modern one will almost inevitably be moving that worker a step down in the world of work. In turn, the region may be fated to suffer, as each individual experiences a loss in wages and security, effectuating ripple effects on local tax coffers.

The POWER Initiative does align with this Article's theoretical discussion of how a just transition should be defined. The program's focus on diverse forms of regional stakeholders and initiatives may make it better poised to succeed than programs focused more heavily on one approach, such as worker retraining or providing direct subsidies to local governments. Yet it is not clear that POWER is adequate to address the likely-intensified losses anticipated to be associated with deep decarbonization.

In any case, these programs indicate that circumstances triggering just transitions are not limited to what is arguably the perfect case study of the coalfield community. The case of the New York City taxi drivers illustrates yet another scenario where workers formed a longstanding dependency relationship with one industry; their industry performed a quasi-public function; and the public's failure to act left the workers vulnerable to an abrupt collapse of their industry, leaving them without meaningful alternatives. As with manufacturing or mining jobs, taxi drivers, once part of a lucrative, regulated community, were suddenly in competition with options that were cheaper, faster, and less secure in the form of app-directed ride-sharing services.<sup>291</sup> Many drivers had invested their life savings in coveted taxi medallions, the value of which dropped dramatically due to the rise of Uber and Lyft. Six driver suicides over the course of six months in 2018 brought the City's attention to this community's struggle.<sup>292</sup> As of this

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289. See Council of Econ. Advisers, *Strengthening the Rural Economy—The Current State of Rural America*, WHITE HOUSE: PRESIDENT BARACK OBAMA (Apr. 27, 2010), <https://obamawhitehouse.archives.gov/administration/eop/cea/factsheets-reports/strengthening-the-rural-economy/the-current-state-of-rural-america>.

290. See U.S. Dep't of Labor, *Current Employment Statistics Survey: 100 Years of Employment, Hours, and Earnings*, BUREAU LAB. STAT. (Aug. 2016), <https://doi.org/10.21916/mlr.2016.38>.

291. See Reihan Salam, *Taxi-Driver Suicides Are a Warning*, ATLANTIC (June 5, 2018), <https://www.theatlantic.com/politics/archive/2018/06/taxi-driver-suicides-are-a-warning/561926>.

292. Phil McCausland, *Sixth New York City Cab Driver Dies of Suicide After Struggling Financially*, NBC NEWS (June 16, 2018), <https://www.nbcnews.com/news/us-news/sixth-new-york-city->

writing, “New York’s city council is poised to approve a one-year cap on new licenses for Uber . . . and other ride-sharing vehicles as part of a sweeping package of regulations intended to reduce traffic and halt the downward slide in drivers’ pay.”<sup>293</sup>

Just transitions considerations also seem relevant to communities displaced by gentrification. In those instances, the community has developed a dependency relationship on an existing way of life. This way of life could have relied, in fact, on a history of under-investment, the absence of industry, or a mix of industries that are not necessarily lucrative. When more lucrative industries arrive to take advantage of that history of under-investment—bringing with them wealthier residents and higher home and goods prices—political inaction in the face of the communities’ vulnerability to displacement may be an analogous version of an unjust transition.<sup>294</sup>

The next Section looks at alternatives, or potential complements, to federal aid packages in transitional programs. It posits that locally-driven transitions may stand to more meaningfully untangle the diverse issues at play in a mono-economy or dependency relationship. This more intimate process could in turn yield more benefits in shaping regional economic fates.

### C. LOCALLY-DRIVEN TRANSITIONS

Alan Ramo and Deborah Behles examined the experience of Navajo and Hopi communities with the Mohave Generating Station along the Nevada-Arizona border in the late 1990s and early 2000s.<sup>295</sup> Their case study provides an illustration of a scenario in which local actors addressed the impending cessation of hazardous industrial activity that a community also depended upon economically.

The U.S. Department of the Interior decided in the early nineteenth century that the Mohave Station would receive its coal and water from nearby Hopi and Navajo reservations.<sup>296</sup> This decision commenced a longstanding exploitative relationship that gave Native groups little control

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cab-driver-dies-suicide-after-struggling-n883886; Nikita Stewart & Luis Ferré-Sadurní, *Another Taxi Driver in Debt Takes His Life. That's 5 in 5 Months.*, N.Y. TIMES (May 27, 2018), <https://www.nytimes.com/2018/05/27/nyregion/taxi-driver-suicide-nyc.html>.

293. Henry Goldman, *Hyperdrive: NYC Is Set to Impose a Cap on Uber*, BLOOMBERG (Aug. 6, 2018), <https://www.bloomberg.com/news/articles/2018-08-06/nyc-set-to-impose-cap-on-uber-as-ride-hail-vehicles-clog-streets>.

294. See *Just Transition: A Framework for Change*, CLIMATE JUST. ALLIANCE, <https://climatejusticealliance.org/just-transition> (Last visited Feb. 6, 2019) (listing gentrification as scenario warranting just transition considerations).

295. See Ramo & Behles, *supra* note 84, at 509.

296. *Id.* at 509–10.

over their coal and water resources.<sup>297</sup> For years, both Hopi and Navajo tribes advocated to set aside the original decree, protesting highly undervalued royalties they received for use of their coal and water.<sup>298</sup> Yet the communities also depended on the royalties, as well as the fact that about 250 Navajo were employed at Mohave's mine.<sup>299</sup>

In 1998, two environmental groups sued Mohave's owners, alleging violations of Clean Air Act emissions limits, compliance orders, and reporting requirements; simultaneously, the U.S. Environmental Protection Agency concluded that the plant posed a risk to visibility in the Grand Canyon.<sup>300</sup> Thus began the transition toward the closure of the Mohave Plant, which risked leaving the native communities in even worse circumstances than before, despite the closure's likely environmental benefits.

The Mohave plant was closed in 2006.<sup>301</sup> It was not closed because of environmental hazards, but because it was no longer cost-effective—which again raises the question of untangling the causal factors that trigger the need for a just transition. The communities were “devastated by Mohave's operation,” but also devastated by its closure.<sup>302</sup>

Issues concerning the plant arose in another proceeding around the same time, however, where Mohave's former owner, Southern California Edison, was involved in a rate case with the California Public Utilities Commission (“CPUC”).<sup>303</sup> Local groups formed an organization called the “Just Transition Coalition” in order to intervene in the proceeding. The coalition was an “alliance of environmental and grassroots Native American interests including the Indigenous Environmental Network, Black Mesa Trust, Black Mesa Water coalition, To' Nizhoni Ani, Grand Canyon Trust, and the Sierra Club.”<sup>304</sup> The coalition intervened “to demand that the CPUC allocate funds from the sale of Acid Rain SO<sub>2</sub> allowances, which were an unneeded windfall if Mohave remained closed, to help transition the Hopi and Navajo communities to cleaner energy alternatives.”<sup>305</sup> The group emphasized that a transition that invested in the communities “was equitable due to Mohave's operation and closure's devastating economic and social

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297. *Id.* at 510.

298. *Id.* at 512–13.

299. *Id.* at 515.

300. *Id.* at 513.

301. *Id.* at 517.

302. *Id.* at 520.

303. *Id.*

304. *Id.*

305. *Id.* at 519.

impacts and decades of . . . subsidized cheap coal power.”<sup>306</sup> The CPUC then ordered Mohave’s former owner to set aside acid rain allowances to be disbursed in the future.<sup>307</sup>

The process of transitioning the communities away from their dependency relationship with the plant involved “years of mediation, workshops, and litigation,” which resulted in the Hopi and Navajo agreeing with the Just Transition Coalition that revenues should be used to incentivize renewable energy generation.<sup>308</sup> The CPUC, relying on its authority to “exercise equitable jurisdiction as an incident to its express duties” to regulate utilities in its jurisdiction, as well as California’s Renewable Portfolio Standard, decided “to disburse the allowance revenues to incentivize renewable generation that benefited Hopi and Navajo communities.”<sup>309</sup>

While the procedural evolution of this case study may appear to be a unique or idiosyncratic approach to a just transition, it offers lessons for pursuing just transitions elsewhere. Ramo and Behles argued that this scenario “presents a roadmap for other states to consider creative solutions to help communities transition away from fossil-fuel generation.”<sup>310</sup> As of this writing, many commentators seem to view the Mohave transition as a success story.<sup>311</sup>

The Mohave process in fact mirrors several procedural models that can be embodied in law and policy in different ways. First, it resembles new governance. According to new governance theory, diverse stakeholders must be involved in decisionmaking, where traditional networks and hierarchies are emphasized less, and the exchange of information and pursuit of win-win solutions are emphasized more.<sup>312</sup> More traditionally, though, this process resembles land use planning processes, which also involve bringing stakeholders together to pursue collaborative decisionmaking.<sup>313</sup> Administrative law and policy can provide for mechanisms that facilitate communities’ ability to pursue these processes.

Diverse local and state jurisdictions in the United States and

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306. *Id.* at 521.

307. *Id.* at 525–26.

308. *See id.* at 522.

309. *Id.* at 523–25.

310. *Id.* at 526.

311. *See, e.g.,* J. Mijin Cha, *Labor Leading on Climate: A Policy Platform to Addressing Rising Inequality and Rising Sea Levels in New York State*, 34 PACE ENVTL. L. REV. 423, 447 (2017) (citing Mohave example as positive outcome).

312. Eisenberg, *Alienation and Reconciliation*, *supra* note 18, at 138.

313. *Id.*

internationally are in the process of approaching transitions in different ways. In 2008, the State of Kentucky passed a tax incentive to attract new employers to the region.<sup>314</sup> The struggling coal town of Hazard, Kentucky, has developed a former surface mine site into a research and testing facility for drone companies, while also offering new skills courses through the local community college.<sup>315</sup> The Canadian province of Alberta has earmarked \$40 million to help approximately 2,000 workers, who are “losing their jobs as the province transitions away from thermal coal mines and coal-fired power plants over the next decade,” by providing “tuition vouchers, retraining programs, and on-site transitioning advice.”<sup>316</sup> These varying approaches indicate that the ideal model for pursuing a just transition may be context-specific. At least, as much of the global community seeks to transition to low-carbon energy emissions in the coming years, more success stories and replicable models should emerge.

The Mohave study suggests that certain conditions may be conducive to a more transformative transition than an approach focused more narrowly on a measure such as worker retraining. These conditions include equal bargaining power among stakeholders, stakeholders with adequate resources, and a procedural mechanism to pursue a long-term decisionmaking or dispute resolution process. An effort toward transition that is more transformative also must involve some iterative decisionmaking—the “messiness” often associated with successful stakeholder collaboration—rather than single instances of legislative reform. Appropriate venues could be state, local, or federal administrative agencies, local governments, and courts.

The Mohave study also shows how a just transitions policy can, and often should, be pursued in tandem with remedies for a history of environmental injustice. Many communities that depend upon high-carbon industries have also been harmed by them; many communities harmed by high-carbon industries have not benefited economically at all. Yet the choice of remedy does not pose an “either/or” choice between remedying

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314. See generally KY. CTR. FOR ECON. DEV., JUST THE FACTS: KENTUCKY BUSINESS INVESTMENT PROGRAM (2018), <http://thinkkentucky.com/kyedc/pdfs/KBIFactSheet.pdf?57>.

315. Parija Kavilanz, *How This Kentucky Coal Town Is Trying to Bring its Economy Back to Life*, CNN (Nov. 8, 2017), <https://money.cnn.com/2017/11/08/news/economy/hazard-kentucky-coal-jobs/index.html>.

316. Slav Kornik, *Alberta Puts Up \$40M to Help Workers Transition During Coal-Power Phase-Out*, GLOBAL NEWS (Nov. 10, 2017), <https://globalnews.ca/news/3855043/alberta-puts-up-40m-to-help-workers-transition-during-coal-power-phase-out>; see also *A Just Transition: The Way Forward for Coal Communities*, ENERGY TRANSITION (Feb. 20, 2017), <https://energytransition.org/2017/02/a-just-transition-the-way-forward-for-coal-communities> (discussing transitions for coal communities in Germany).

environmental injustice or remedying just transitions. A holistic, democratic process can account for both past harms and future risks.

#### D. ADDITIONAL CONSIDERATIONS FOR PURSUING JUST TRANSITIONS

A pressing question in the pursuit of just transitions policy is, who pays for just transitions? More specifically, why should the public pay and not the employers who have left these regions and workers vulnerable?

The discussion in this Article is primarily concerned with public options for facilitating collective transitions. It is presumed that employers will often not be in a position to facilitate just transitions themselves. First—consistent with the above-mentioned concerns about interest groups—accountability for fossil fuel companies has been elusive.<sup>317</sup> Congress has virtually declined to regulate the natural gas industry, for example.<sup>318</sup> Second, many employers have become insolvent, as evidenced by the spate of coal companies that have filed for bankruptcy in recent years.<sup>319</sup>

Nonetheless, future research should address the prospect of employer involvement in just transitions law and policy, especially where employers have knowingly pursued hazardous industrial activity to society's detriment. In addition to tobacco companies' involvement in funding the TTPP program described in Section III.A.3, a starting point for this consideration would be the federal Worker Adjustment and Retraining Notification Act of 1988 (the "WARN Act").

The WARN Act "was enacted in 1988 in response to the rash of plant closings and layoffs that had occurred in the immediately preceding years."<sup>320</sup> It sought "to enable workers, their families, and local community leaders sufficient time to prepare for mass layoffs or plant closures."<sup>321</sup> It "obligates employers to provide at least 60-days notice to employees and local government officials of a covered plant closure or mass layoff."<sup>322</sup> The Act covers employers who plan to lay off fifty or more employees during any thirty-day period, excluding part-time employees.

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317. See Joshua Macey & Jackson Salovaara, *Bankruptcy as Bailout: Coal, Chapter 11, and the Erosion of Federal Law*, 71 STAN. L. REV. 137 *passim* (2019); see also Eisenberg, *Beyond Science and Hysteria*, *supra* note 145, at 207.

318. See Macey & Salovaara, *supra* note 317 *passim*.

319. See, e.g., Katy Stech Ferek, *Coal Company Armstrong Energy Files for Chapter 11 Bankruptcy Protection*, WALL ST. J. (Nov. 1, 2017), <https://www.wsj.com/articles/coal-company-armstrong-energy-files-for-chapter-11-bankruptcy-protection-1509548753>.

320. Ethan Lipsig & Keith R. Fentonmiller, *A WARN Act Road Map*, 11 LAB. LAW. 273, 273 (1996).

321. Nicole C. Snyder & Scott E. Randolph, *Understanding the Federal WARN Act and Its Impact on the Sale of A Business*, 52 ADVOCATE 29, 29 (2009).

322. *Id.*

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The WARN Act has been heavily criticized. Not only does it do little for workers and communities beyond providing a strikingly brief notice period before entire communities may be upended, but it also was deemed “imprecise, vague, difficult to interpret, and . . . may be very difficult to apply sensibly to particular fact situations.”<sup>323</sup> But the idea could be helpful. Perhaps a modernized WARN Act of just transitions law and policy would require six to twelve months’ notice and options for assisting workers to retrain and relocate, for example.

Finally, perhaps the real concern underlying the justice or injustice of transitions is not about transitions at all. Measures such as guaranteed employment or universal basic income, for example, would preclude the need to manufacture new regional or sectoral economies in anticipation of the ebb and flow of industries. A more robust baseline of worker and community support would make the vulnerability associated with transitions less dire and help preclude difficult decisions as to who should win and lose in the distribution of benefits and burdens.

#### CONCLUSION

In the context of climate change, legal scholars should embrace the just transition as an equitable principle of easing the burden decarbonization poses to workers and communities who depend on carbon-heavy industries. Embracing this definition will be clarifying, will allow legal scholarship to engage with other fields and institutions that already recognize this definition, and will give the labor movement its due for originating the term. In turn, the concept finds support in important principles relevant to the environmental condition today, such as the need to account for complex social-ecological systems, to address jobs-versus-environment tensions, and to better consider economic equity. In short, if scholars and policymakers embrace the just transition concept, it stands to serve principles of economic equity, it might help make climate reform more achievable through coalition-building, and it is poised to bring environmental law more in line with the needs of the climate era.

Yet the just transition concept bears relevance to diverse scenarios where workers and communities face large-scale displacement from the longstanding industries on which they have relied. The moral impetus to help in the face of displacement may be the strongest where a public initiative is the clear cause of the displacement. This scenario is the most analogous to the state’s use of eminent domain, where the “taking” of something is

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323. Lipsig & Fentonmiller, *supra* note 320, at 273.

compensated because a discrete group is not asked to bear the costs of an initiative pursued for the greater good. While one might suggest that workers and communities should bear the costs of such displacement as the natural price of regulation, U.S. transitional policy illustrates prominent instances where Congress was compelled to intervene.

The cause of displacement is often unclear, however. Our economic and legal evolutions tend to be intertwined. Thus, transitional policy may still be warranted where the cause of the displacement is less clear than the obvious, and relatively rare, “job-killing” law. Further, even if purely private forces caused large-scale displacement, considerations of fairness, compassion, and equity suggest it is the wrong choice to simply leave workers in the lurch where they lack other alternatives, or where their work contributed a public or quasi-public function—especially if, as Mazzocchi articulated and as is the case with fossil fuel workers, that work was particularly hazardous. This calculus does yield inherent problems with line-drawing. As an alternative, measures such as universal basic income or other provisions of a more robust social safety net could preclude the need to pick winners and losers in these scenarios.

Given federal agencies’ track record of failing to sustainably untangle regional dependency relationships, to adequately offset workers’ and communities’ losses, or to nurture forward-looking economic diversification for regions and sectors in decline, it may be time to question whether federal agencies are indeed the most appropriate forum for large-scale transitional policy. It is possible that the largely-untested POWER Initiative uses novel substantive approaches that may not repeat the mistakes of past policies. Processes driven by state and local institutions and stakeholders may allow for a more involved, context-specific approach that can help better address the challenges associated with historical mono-economies. Additional research can help illuminate the best mechanisms for achieving just transitions in practice, especially as the clean-energy transition gains momentum. Perhaps most importantly, when environmental decisions are made, just transitions can and should be among values decisionmakers seek to harmonize.