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## **FOOD SUSTAINABILITY IN THE AGE OF COMPLEX, GLOBAL SUPPLY CHAINS**

Steph Tai\*

Food production has become more complex over time. Moreover, we are producing food in an increasingly global, rather than local, manner. How can demands for sustainability be reinforced in this age of complex, global supply chains? This essay focuses on three key features of the modern food supply chain: the variety of components, the complexity of the chain itself, and diversity of “enforcement” mechanisms in food production supply chains. These features suggest that traditional governmental tools (such as command and control measures) and contractual tools (such as performance standards) may not be sufficient to ensure sustainable production methods.

Instead, I argue that sustainability advocates should focus on identifying points within supply chain systems that they can use to leverage greater accountability from the supply chain actors with respect to sustainability. Drawing from Donella Meadows’s insights into systems analysis, this essay argues that such advocates should devote their efforts towards urging global actors to incorporate traceability, transparency, and third-party participation mechanisms into their supply chain contracts. It uses various case studies to highlight how—when such mechanisms have been incorporated—nongovernmental organizations have been able to more effectively ensure the sustainability considerations in supply chain governance. Thus, by concentrating on such areas, rather than focusing solely on traditional control measures, advocates will be more effective in incorporating sustainability into food production processes.

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\* Associate Professor of Law, University of Wisconsin Law School. This essay is dedicated to Professor Peter Appel, with whom I’ve had so many valuable and insightful conversations about private environmental governance. He is very missed.

## I. OUR GLOBAL FOOD SUPPLY CHAINS

The past few decades have brought a dramatic increase in the globalization of food production. In the United States alone, “[a]s recently as the mid-1980s, U.S. agricultural exports and imports were valued at less than \$30 billion each. By 2012, exports were worth about \$135 billion, and imports were approaching \$105 billion, more than a threefold increase for each.”<sup>1</sup> These chains are lengthy, and often increasingly lengthier as consumers demand more processed foods using ingredients that are not seasonal to their locales.<sup>2</sup> Moreover, the chains for food production have become increasingly complex, with “the delivery of a single type of food to a consumer involv[ing] many actors.”<sup>3</sup>

There are a number of features in global supply chains that make them inherently difficult for an individual state actor to regulate. Supply chains often contain a number of components: from producers of farm inputs (such as seeds, fertilizers, and pesticides), the farms themselves, “first-line handlers” (including “for-profit commodity trading companies and farmer cooperatives that aggregate the output of individual farms to gain economies of scale and market access to the rest of the food supply chain”), manufacturers, wholesalers, logistic firms who do “not actually assume ownership of the food products but [instead] provide the service of logistical distribution and inventory coordination,” institutional buyers, retail food stores, and food and beverage services.<sup>4</sup> When these chains are global, these actors can be spread around the world, subject to differing types and degrees of regulatory oversight.<sup>5</sup>

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1. National Academy of Sciences, *A Framework for Assessing Effects of the Food System* (2015) [hereinafter *Food Systems Framework*], available at <https://www.nap.edu/read/18846/chapter/1>, at 63 (internal citations omitted).

2. Cf. Food and Agriculture Organization of the United Nations, *The Future of Food and Agriculture: Trends and Challenges* [hereinafter *The Future of Food and Agriculture*] (2017), available at <http://www.fao.org/3/a-i6583e.pdf>, at 4 (“Food supply chains have lengthened dramatically as the physical distance from farm to plate has increased; the consumption of processed, packaged and prepared foods has increased in all but the most isolated rural communities.”).

3. *Food Systems Framework*, *supra* note 1, at 32.

4. *See id.* at 32-33.

5. *See* Galit A. Sarfaty, *Shining Light on Global Supply Chains*, 56 HARV. INT’L L.J. 419, 421 (2015) (“Domestic regulations on supply chains pose a unique compliance challenge to companies because these laws operate extraterritorially.”).

Moreover, these chains are also often quite complex.<sup>6</sup> As one study has argued, “[o]wing to the many domains involved and the different scales on which different processes take place (from households to the global market), food systems are inherently highly complex systems: That is, their relevant aspects cannot be captured from a single perspective, and therefore different stakeholders may have different perceptions of what a food system is and how it performs.”<sup>7</sup> Such complexities can involve differing relationships within various spheres: public, scientific, market, and policy.<sup>8</sup> A “public” analysis involves various public concerns, such as cultural considerations and sustainability, about the relationships between various components of food supply chains.<sup>9</sup> A “scientific” analysis involves the factual examination of the production chains themselves.<sup>10</sup> A “market” analysis involves economic assessments of how differing aspects of food supply chains are related in terms of pricing and marketing.<sup>11</sup> And a “policy” analysis involves examinations of how different components are related through public regulation and policies.<sup>12</sup> As such, any comprehensive attempt to characterize the interrelationships amongst components of food supply chains will, by necessity, need to take into account these various perspectives on how these components can be interrelated.

Finally, global food supply chains are characterized by the large variety of contractual forms used by private actors to structure those production chains.<sup>13</sup> These can include the use forms for “spot markets” (that is, “commodities sold for cash and delivered immediately”), for marketing contracts (which often “[c]ontain estimates of the production under the contract and of delivery times and quantities”), for production contracts (where producers “agree[] to deliver a product produced in a

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6. See Gonzalo Gamboa et al., *The Complexity of Food Systems: Defining Relevant Attributes and Indicators for the Evaluation of Food Supply Chains in Spain*, 8 SUSTAINABILITY 515, at 2 (2016).

7. *Id.* at 2.

8. *See id.* at 7.

9. *Cf. id.*

10. *Cf. id.*

11. *See* Gamboa et al., *supra* note 6.

12. *Cf. id.*

13. *See* Pavel Vavra, OECD Food, Agriculture and Fisheries Working Papers No. 16, *Role, Usage and Motivation for Contracting in Agriculture 2* (2009).

manner set forth in the agreement”) and for governance via vertical integration (where a single firm “controls assets and production decisions in adjacent farming and processing stages.”).<sup>14</sup> These different types of contractual forms can include a number of variations of terms within the forms themselves, involving different terms for production and sales standards, liability allocation, and sales timing.<sup>15</sup> And—when food suppliers are concerned about sustainability or the appearance of sustainability—these terms can involve setting specific standards to reach desired sustainability goals.<sup>16</sup>

These aspects of global supply chains have engendered distress among food sustainability activists, to the extent that one scholar has described the global food system as “literally killing us.”<sup>17</sup> Among the concerns raised by activists and scholars are the impacts that global supply chains have on sustainability, including the lengthening of the supply chains and its impact on sustainability,<sup>18</sup> the difficulty of tracking changes within supply chains and the resulting impact on sustainability,<sup>19</sup> and lack of accountability within private supply chains.<sup>20</sup>

Due to these considerations, activists and scholars, as well as various international organizations concerned about the sustainability of global food supply chains have focused on establishing a number of standards for food production.<sup>21</sup>

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14. *See id.* at 6.

15. *See id.* at 5.

16. *See id.* at 6-7.

17. Molly D. Anderson, Food Ethics Council, *Why the Global Food System Is Literally Killing Us*, FOOD ETHICS COUNCIL: BLOG (June 2, 2018), <https://www.foodethicscouncil.org/blog/166/19/why-the-global-food-system-is-literally-killing-us/> [<https://perma.cc/D673-RVXB>].

18. *See, e.g., The Future of Food and Agriculture, supra* note 2, at 5 (stating that “[t]he lengthening of food chains and changes in dietary patterns have further increased the resource-, energy-, and emission-intensity of the global food system.”)

19. *See, e.g.,* Volker Keiner, *How To Create A Transparent, Sustainable Food Supply Chain*, DIGITALIST MAGAZINE (Sept. 13, 2016), <http://www.digitalistmag.com/digital-supply-networks/2016/09/13/create-transparent-sustainable-food-supply-chain-04462240> [<https://perma.cc/LG4Q-ZJG4>] (describing concerns regarding supply chain traceability).

20. *See, e.g.,* M. Deblonde et al., *An Ethical Toolkit for Food Companies: Reflections on Its Use*, 20 J. AGR. & ENVTL. ETHICS 99, 105 (2006) (describing the importance of accountability in designing ethical supply chains).

21. *See, e.g.,* Organisation for Economic Co-operation and Development & Food & Agriculture Organization of the United Nations, *OECD-FAO Guidance for Responsible*

Notable is the relatively recent Organisation for Economic Co-operation and Development (OECD) “Guidance for Responsible Agricultural Supply Chains.”<sup>22</sup> This guidance, promulgated in 2016, highlights a number of key aspects for consideration in building sustainable agricultural supply chains: human rights, labor rights, health and safety, food security and nutrition, tenure rights, animal welfare, environmental protection, governance, and technology and innovation.<sup>23</sup> It focuses on procedural methods to incorporate these considerations into supply chains that purport to be sustainable.<sup>24</sup> In particular, it recommends a few key steps to building sustainable agricultural supply chains: “[e]stablish[ing] strong enterprise management systems for responsible agricultural supply chains,” “[i]dentify[ing], assess[ing] and prioritiz[ing] risks in the supply chain,” “[d]esign[ing] and implement[ing] a strategy to respond to identified risks,” “[v]erify[ing] supply chain due diligence,” and “[r]eport[ing] on supply chain due diligence.”<sup>25</sup>

Similarly, the International Organization for Standardization, a private body that “develop[s] and publish[es] International Standards,”<sup>26</sup> has recently promulgated standards for sustainable procurement (applicable also to food and agricultural sectors).<sup>27</sup> This standard, known as ISO 20400, “aims to assist organisations in meeting their sustainability responsibilities by providing guidance as to the effective implementation of sustainable purchasing practices and

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*Agricultural Supply Chains* [hereinafter *OECD-FAO Guidance*] (2016), <http://mneguidelines.oecd.org/OECD-FAO-Guidance.pdf> [<https://perma.cc/2W86-Q96C>]; International Organization for Standardization, ISO 20400, *Sustainable Procurement* [hereinafter *ISO 20400: Sustainable Procurement*] (2017); Miet Maertens & Johan Swinnen, *Agricultural Trade and Development: A Value Chain Perspective*, WTO Working Paper ERSD-2015-04 (April 2015), available at [<https://perma.cc/MUP6-E5NQ>], at 8 (describing the increasing use of private standards).

22. *OECD-FAO Guidance*, *supra* note 21, at 13-23.

23. *Id.* at 26-29.

24. See, e.g., *id.* at 31-33 (describing good assessment procedure practices, as well as standard-setting processes and risk assessment and management processes).

25. *Id.* at 31-38.

26. International Organization for Standardization, *International Organization for Standardization*, <https://www.iso.org/home.html> [<https://perma.cc/ZUM9-GMGB>].

27. See *ISO 20400: Sustainable Procurement*, *supra* note 21.

policies.”<sup>28</sup> This private standard focuses on explaining the fundamentals of “sustainability,” and emphasizes the importance of incorporating standards for sustainability within supply chains.<sup>29</sup> It also contains suggestions for management strategies and performance metrics that incorporate sustainability concerns.<sup>30</sup>

Indeed, such standard-setting approaches have been adopted by a number of global actors. McDonalds, for example, has adopted what it called their “Global Sustainability Framework,” which established “aspirational goals [for 2020] across a series of social and environmental topics in pillars [they] called Food, Planet and Sourcing.”<sup>31</sup> Similarly, Unilever adopted a “Sustainable Living Plan,” with environmental goals that included halving “the greenhouse gas (GHG) impact of our products across the lifecycle by 2030,” halving “the water associated with the consumer use of [their] products by 2020,” halving “the waste associated with the disposal of [their] products by 2020,” and sourcing “100% of [their] agricultural raw materials sustainably” by 2020.<sup>32</sup>

Such efforts, however, can raise concerns of “greenwashing,” a term used “to describe the deceptive use of ‘green marketing’ to promote a misleading perception that a company’s policies, practices, products or services are environmentally friendly.”<sup>33</sup> Without sufficient monitoring and enforcement mechanisms for these sustainability initiatives, observers may have a difficult time assessing the actual effects of these initiatives on the environment.<sup>34</sup>

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28. Holding Redlich, *A New Standard in Procurement—A Closer Look at ISO 20400*, LEXOLOGY (July 2017), <https://www.lexology.com/library/detail.aspx?g=6a2c4a73-4afc-497a-9a4f-b1aa8d2b7625> [<https://perma.cc/7QDT-8AEP>].

29. *Id.*

30. *Id.*

31. McDonalds, *Using Our Scale for Good*, <http://corporate.mcdonalds.com/corpmcd/scale-for-good/using-our-scale-for-good.html> [<https://perma.cc/6DR3-RV9Y>].

32. Unilever, *Sustainable Living: Water Use*, <https://www.unilever.com/sustainable-living/reducing-environmental-impact/water-use/> [<https://perma.cc/7XMP-4MZZ>].

33. Devika Kewalramani & Richard J. Sobelsohn, *Are You Being Greenwashed?*, 84 N.Y. ST. B.J. 5 (June 2012).

34. See, e.g., Sarfaty, *supra* note 5 at 426-27 (describing “existing voluntary standards (e.g., OECD Guidelines for Multinational Enterprises, ILO’s Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy, and UN Global Compact) and self-regulation (e.g., codes of conduct) have been largely ineffective

As such, these types of general standards may be insufficient to fully reach goals of sustainability through private governance. This is because the incorporation of such standards, while admirable, often fail to fully address the various supply chain features described earlier in this essay. That is, the multiplicity of chain components, the complexity of supply chain interrelationships, and the diversity of private enforcement mechanisms can often mean that any failure to fully comply with adopted “sustainability standards” can be either overlooked or even impossible to ascertain.<sup>35</sup> Instead, I argue that insights from the systems analysis literature might provide useful tools for better addressing these general concerns.

## II. AN INTRODUCTION TO SYSTEMS ANALYSIS

From a legal perspective, what is involved in a systems analysis approach to food chain sustainability? To address this question, I draw from the approach of Donella Meadows, a pioneering environmental systems scholar.<sup>36</sup> In her work, *Thinking in Systems*, she described a number of ways to think about environmental considerations from a systems analysis perspective.<sup>37</sup> Using a systems analysis approach, Meadows pointed out that any system is comprised of three parts: its elements, its interconnectivities, and its function.<sup>38</sup> Each of these—the elements, relationships, and their various functions — are important in terms of understanding how a particular system (such as the global food supply chain system) works.

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in shaping corporate behavior as they lack independent monitoring and enforcement mechanisms and are thus subject to critiques of greenwashing.”); *see also* William S. Laufer, *Social Accountability and Corporate Greenwashing*, 43 J. BUS. ETHICS 253-61 (2003).

35. *Cf.* Jerry Davis, *Can Global Supply Chains Be Accountable?*, YALE GLOBAL ONLINE (May 2013), <https://yaleglobal.yale.edu/content/can-global-supply-chains-be-accountable>[<https://perma.cc/P27X-BGT4>] (describing the difficulty that consumers have in holding supply chains accountable for their actual production processes).

36. *See* The Donella Meadows Project, *About Donella “Dana” Meadows*, <http://donellameadows.org/donella-meadows-legacy/donella-dana-meadows/> [<https://perma.cc/KV7C-PRMX>] (describing her as “one of the most influential environmental thinkers of the twentieth century”); *see also* Wolfgang Sexon, *Donella Meadows, 59, Author, And Advocate for Environment*, NY TIMES (Feb. 22, 2001), <https://www.nytimes.com/2001/02/22/us/donella-meadows-59-author-and-advocate-for-environment.html>.

37. *See generally* DONELLA MEADOWS, *THINKING IN SYSTEMS* (2008).

38. *Id.* at 11.



Nevertheless, this systems-based approach emphasizes interconnectivities and functions as more relevant towards deriving avenues for potential change than any sole focus on the elements of the system, which is the focus of many standard-setting initiatives.<sup>39</sup>

In turn, the systems analysis approach also focuses on systematic aspects rarely used in legal analysis, concepts such as stocks (which constitute elements of the system that can be measured or seen at any given time),<sup>40</sup> flows (the actions which change the stocks over time),<sup>41</sup> dynamics (the behavior of stocks and flows over time),<sup>42</sup> and dynamic equilibria (equilibrium states that are reached through the dynamics of a system).<sup>43</sup> This kind of approach also introduces concepts such as feedback loops (mechanisms that—through the interaction of stocks and flows—lead to consistent behavior patterns over a long period of time),<sup>44</sup> shifting dominance (changes in the impact of one feedback loop over others, when multiple feedback loops are present),<sup>45</sup> resilience (a system's ability to persist within a changing environment),<sup>46</sup> and limiting factors (necessary inputs to systems that limit the activities of the system at particular moments).<sup>47</sup> Again, these are the sorts of aspects that—as I've highlighted—are not emphasized in the standard-setting approaches developed recently in the food chain sustainability context.<sup>48</sup>

In short, a systems analysis approach indicates that advocates who want to fully engage with structural issues should focus more on how components within a system—such as the global food supply chain system—operate and respond to change, rather than only focusing on standards for particular outputs or components. This, in turn, can suggest that fruitful avenues for advocacy can involve not only the setting of

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39. *Id.* at 14-17.

40. *Id.* at 17-18.

41. *Id.* at 18-19.

42. MEADOWS, *supra* note 37, at 19-20.

43. *Id.* at 21-22.

44. *Id.* at 25-27.

45. *Id.* at 44-45.

46. *Id.* at 76-78.

47. MEADOWS, *supra* note 37, at 100-03.

48. *See* Redlich, *supra* note 28.

standards for sustainable food chain management, but the strengthening of points within the system whereby advocates can have continuing effect.

This is where the systems analysis concept of leverage points is especially fertile.<sup>49</sup> In systems analysis, “leverage points” are points within complex systems “where a small shift in one thing can produce big changes in everything.”<sup>50</sup> While there are no easy methods for identifying leverage points without inquiring into the particularities of individual systems,<sup>51</sup> systems scholars have at least developed principles for identifying the types of leverage points that are more effective at achieving change.<sup>52</sup> Given this context, a systems approach to enhancing global food supply chain sustainability would emphasize not only the stocks and flows of the supply chains—the focus of many standard-setting initiatives—but also incorporating leverage points whereby activists can continue to shift supply chains towards greater sustainability.

### III. IDENTIFYING KEY LEVERAGE POINTS WITHIN GLOBAL FOOD SUPPLY CHAINS USING THE SYSTEMS ANALYSIS APPROACH

So, if sustainability advocates are to embrace the insights that systems analysis thinking provides regarding leverage points, upon what sorts of private governance mechanisms should advocates focus? This Part provides a few suggestions, using various case studies, mostly from the fair labor arena, to illustrate how the incorporation of certain supply chain governance mechanisms can be used by sustainability activists to leverage the promotion of sustainability. In particular, this Part emphasizes traceability, transparency, third-party enforceability, and adaptability mechanisms as leverage points that warrant further study and potential advocacy. In discussing the case studies, this essay also examines how these leverage points often work in synergy with each other, and thus, how

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49. See DONELLA MEADOWS, *Leverage Points: Places to Intervene in a System* (1999), available at [<https://perma.cc/XB96-8Q3Z>].

50. *Id.* at 1.

51. *Id.* at 2.

52. *Id.* at 3.

adoption of any single leverage point alone may be insufficient to shift supply chains towards greater sustainability.

Traceability in supply chains constitutes the ability of actors to track the overall supply chain components.<sup>53</sup> A number of definitions for traceability exist,<sup>54</sup> but the idea of traceability is the ability to follow the movement of food through its various stages of production, processing, and distribution.<sup>55</sup> Traceability can provide both informational benefits, by way of systematically tracking the sources and movement of components of supply chains, as well as accountability benefits, if such tracking information is made publicly available.<sup>56</sup> With respect to incorporating sustainability into supply chains, implementing traceability mechanisms can allow producers to identify unsustainable links within supply chains, and also address any concerns that may arise if new reports shed light on the unsustainable practices of certain suppliers. This is an especially important leverage point from the global food supply chain perspective, given the characteristics of the diversity of components and structural complexity described earlier.<sup>57</sup> Without the incorporation of traceability mechanisms, sustainability advocates will face significant hurdles in assessing the sustainability performance of many supply chains.

One example of a traceability initiative is the International Tin Supply Chain Initiative, a program that assists companies with due diligence and the responsible sourcing of minerals from high-risk areas.<sup>58</sup> The Initiative is implemented through

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53. See, e.g., Pam Ly, *Targeting the Conflict Minerals Trade: Corporate Social Responsibility Governance and the Multilateral System*, 25 WILLAMETTE J. INT'L L. & DISP. RESOL. 25, 38-40 (2017) (describing traceability mechanisms for conflict minerals chains); Andrea Migone & Michael Howlett, *From Paper Trails to DNA Barcodes: Enhancing Traceability in Forest and Fishery Certification*, 52 NAT. RESOURCES J. 421 (2012) (describing traceability mechanisms in forest and fisheries product chains).

54. See Migone & Howlett, *supra* note 53, at 424 n.14.

55. See, e.g., Council Regulation 178/2002, 2002 O.J. (L 31) 1 (EC); Codex Alimentarius Commission (defining traceability as “the ability to follow the movement of a food through specified stage(s) of production, processing and distribution.”).

56. Myo Min Aung & Yoon Seok Chang, *Traceability in a Food Supply Chain: Safety and Quality Perspectives*, 39 FOOD. CONTROL J. 173, 173 (2014).

57. *Id.*

58. International Tin Supply Chain Initiative, The ITSCI Programme for Responsible Mineral Supply Chains, <https://www.itsci.org/> [<https://perma.cc/YD6L-6YWG>].

the collaboration of governmental authorities, companies and civil society organizations.<sup>59</sup> One of its key features is the implementation of traceability mechanisms. As described by the Initiative itself,

Once a mine is identified and approved, traceability is implemented by the relevant government agents. ITSCI issues tags to those government agents for use at the approved sites, and the agents record relevant data associated with each bag of mineral as the tags are applied. The agents are regularly on site and are responsible for assuring the source of minerals tagged. Similar data recording takes place at processor and exporter locations and all data is transmitted, either by internet or phone network to the ITSCI data centre where it is verified and checked for errors and anomalies. ITSCI field teams support the government by training agents and following up on any potential issues of fraud or other challenges.<sup>60</sup>

This Initiative has won a number of awards for spurring and improving the use of traceability mechanisms for tin-based supply chains.<sup>61</sup> Concerns, however, have been raised regarding the limited focus of the Initiative (to tin), and the lack of third-party audits to verify “conflict-free” claims.<sup>62</sup> Nevertheless, the Initiative has been praised for “facilitat[ing] compliance with [some disclosure provisions of the Dodd Frank Act.]”<sup>63</sup>

Public transparency in supply chains can also provide a useful leverage point for sustainability advocates. Transparency can include providing public access to sourcing data, third-party audit information, or even annual assessments of sustainability

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59. International Tin Supply Chain Initiative, Purpose, [https:// www.itsci.org/purpose/](https://www.itsci.org/purpose/) [https://perma.cc/J9US-KP58].

60. International Tin Supply Chain Initiative, About, <https://www.itsci.org/about-itsci/> [https://perma.cc/E5RS-NY6P].

61. One of the most recent awards was from edie, a UK-based site for environmental science and management news. See, e.g., *ITRI wins edie Sustainable Supply Chains Leader 2017* (Jan. 27, 2017), [https:// www.itsci.org/ 2017/ 01/ 27/ itri- wins- edie- sustainable- supply- chains- leader- 2017/](https://www.itsci.org/2017/01/27/itri-wins-edie-sustainable-supply-chains-leader-2017/) [https://perma.cc/62RX-6NBX].

62. See, e.g., Melissa Pistilli, *Conflict Minerals: ITRI Supply Chain Initiative Fails to Address Major Issues*, TANTALUM INVESTING NEWS (Apr. 2010), [https://investingnews.com/ daily/ resource-investing/ critical- metals-investing/ tantalum- investing/ conflict- minerals- itri- supply- chain- initiative- fails- to- address- major- issues/](https://investingnews.com/daily/resource-investing/critical-metals-investing/tantalum-investing/conflict-minerals-itri-supply-chain-initiative-fails-to-address-major-issues/) [https://perma.cc/Z56W-X3JA].

63. See Ly, *supra* note 53, at 447.

metrics within a supply chain.<sup>64</sup> Without transparency mechanisms, it can be difficult to hold corporate actors accountable for unsustainable production methods, even if there is public demand to do so.<sup>65</sup> Even traceability initiatives, such as that of the International Tin Supply Chain Initiative, may not successfully address sustainability concerns if that information is not made publicly available to stakeholders who wish to hold corporate actors accountable for enhancing sustainability.<sup>66</sup> Again, given the diversity of components and complexity of supply chains, transparency is necessary for advocates to leverage sustainable changes within global food supply chains.

At this point, I should also add a cautionary note: I do not suggest that transparency provisions alone are sufficient for advocates to leverage greater sustainability out of global supply chains. As a number of scholars have observed, the information provided through various transparency and disclosure mechanisms is often hard for consumers and investors to follow; moreover, advocates are not necessarily able to launch effective boycotts of suppliers who disclose negative information.<sup>67</sup>

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64. See, e.g., Naomi Jiyoung Bang, *Casting a Wide Net to Catch the Big Fish: A Comprehensive Initiative to Reduce Human Trafficking in the Global Seafood Chain*, 17 U. PA. J. L. & SOC. CHANGE 221, 244, 251, 254 (2014).

65. See *id.* at 221 (“With no clear-cut international or national enforcement mechanisms to monitor the integrity of supply chains, little risk of punishment, diminishing courses of action in court, and a fragmented consumer base to hold corporations accountable, corporations have little incentive to maintain transparency in their supply chains.”); Sophia Eckert, *The Business Transparency on Trafficking and Slavery Act: Fighting Forced Labor in Complex Global Supply Chains*, 12 J. INT’L BUS. & L. 383, 383 (2013) (“Global corporate supply chains have become increasingly complex networks that provide little to no transparency. This lack of transparency poses a very real challenge to uncovering forced labor in market activities.”)

66. See, e.g., Adam S. Chilton & Galit A. Sarfaty, *The Limitations of Supply Chain Disclosure Regimes*, 53 STAN. J. INT’L L. 1, 5 (2017).

67. See *id.* at 5-6 (“[H]uman rights-related supply chain disclosures are likely to be uniquely difficult to interpret because they do not provide information on the actual number of human rights abuses a company has committed. They instead only provide information on the level of due diligence companies conduct to minimize the risk of human rights violations in their supply chains. Finally, it is difficult for consumers and experts alike to assess the probability of human rights abuse in a given company’s supply chain because the levels of risk vary considerably based on a company’s size, industry, the country in which it operates, the number of tiers of suppliers in its supply chain, and the total number of suppliers. Taken together, these features of supply chain disclosures make them likely to be even less effective than disclosures in other contexts.”); Marcia Narine, *Disclosing Disclosure’s Defects: Addressing Corporate Irresponsibility for Human Rights Impacts*, 47 COLUM. HUM. RTS. L. REV. 84, 84-85 (2015) (“However, evidence shows that

Instead, I argue for advocates to press for supplier adoption of transparency mechanisms in conjunction with the other leverage points discussed in this essay. That is, while transparency mechanisms alone may not provide sufficient leverage for sustainability (due to the other considerations discussed by observers) they are nevertheless critical for use with other leverage points.

One example of a corporate initiative is the Nike Transparency Initiative.<sup>68</sup> Using both interactive maps and other reporting, Nike has disclosed more than 220 reports available on factory inspections conducted by third parties.<sup>69</sup> While critiques have still been raised regarding Nike's substantive labor practices, Nike—due to this initiative—has nevertheless been praised as “com[ing] a long way.”<sup>70</sup>

The incorporation of third-party participation mechanisms within global supply chains is the final potential leverage point that this essay argues should be the focus of sustainability advocates. As observers have demonstrated, neither traceability nor transparency alone—although moderately successful at advancing sustainability goals—have fully addressed fair labor concerns within supply chains, and there is no reason to suspect that the context of sustainability would be any different.<sup>71</sup>

One major success in this area has been the Coalition of Immokalee 'Workers' Fair Food Program,<sup>72</sup> deemed the “best

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disclosures generally fail to change behavior because: (1) there are too many of them; (2) stakeholders suffer from disclosure overload; and (3) not enough consumers or investors penalize companies by boycotting products or divesting.”).

68. Nike, *Nike Aims to Transform Manufacturing*, <https://about.nike.com/pages/transform-manufacturing> [https://perma.cc/9B62-2KS7] (“The Nike Manufacturing Map discloses the names, locations and demographic information about the workforce at the factories we contract to make our product, and holds us accountable for our chosen source base.”); *see also* Nike, Nike Manufacturing Map, <http://manufacturingmap.nikeinc.com/> [https://perma.cc/ZG8T-V4SF] (providing an interactive map).

69. Fair Labor Association, Nike, Inc., <http://www.fairlabor.org/affiliate/nike-inc> (disclosing 221 third party inspection reports on Nike factories around the world).

70. *See* Simon Birch, *How Activism Forced Nike to Change Its Ethical Game*, THE GUARDIAN (July 6, 2012), <https://www.theguardian.com/environment/green-living-blog/2012/jul/06/activism-nike> [https://perma.cc/L8BY-PYUM].

71. Adam S. Chilton & Galit A. Sarfaty, *The Limitations of Supply Chain Disclosure Regimes*, 53 Stan. J. Int'l L. 1, 20-22 (2017).

72. *See generally* Fair Food Program, About the Fair Food Program, <http://www.fairfoodprogram.org/> [https://perma.cc/3MGZ-RURT].

workplace-monitoring program” by the New York Times.<sup>73</sup> This Program was initiated in 2011 by the Coalition of Immokalee Workers, a grassroots farmworker organization, to address labor abuses in the tomato grower industry.<sup>74</sup> The Fair Food Program works through a Code of Conduct that must be adopted by members of the program.<sup>75</sup> Notably, the Code of Conduct does not merely include the adoption of fair labor standards (such as zero tolerance for forced labor and assault), but also the requirement that employers under the Fair Food Program both (1) create “worker-triggered complaint resolution mechanism[s] leading to complaint investigation[s], corrective action plans, and, if necessary, suspension of a farm’s Participating Grower status, and thereby its ability to sell to Participating Buyers,” and (2) allow “[o]ngoing auditing of the farms by the Fair Food Standards Council to insure compliance with each element of the program.”<sup>76</sup>

The worker-driven, participatory aspects of this program have been praised by many scholars.<sup>77</sup> In particular, scholars observe that

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73. Steven Greenhouse, *In Florida Tomato Fields, a Penny Buys Progress*, N.Y. TIMES (Apr. 24, 2014).

74. Greg Asbed & Steve Hitov, *Preventing Forced Labor in Corporate Supply Chains: The Fair Food Program and Worker-Driven Social Responsibility*, 52 WAKE FOREST L. REV. 497, 498 (2017).

75. Fair Food Standards Council, Fair Food Code of Conduct, <http://www.fairfoodstandards.org/resources/fair-food-code-of-conduct/> [<https://perma.cc/NR6P-AWWK>].

76. Fair Food Standards Council, Frequently Asked Questions, <http://www.fairfoodstandards.org/resources/frequently-asked-questions/> [<https://perma.cc/BXX8-DXVV>]; see also Fair Foods Standards Council, Fair Food Code of Conduct, *supra* note 75, Part I.15 (“Each Participating Grower will inform Qualifying Workers of their right to use the complaint resolution process operated by the FFSC, and may also establish a complaint resolution process of its own that is acceptable to the FFSC. Participating Growers will not attempt to impede in any way the investigation of a complaint by the FFSC on behalf of a Qualifying Worker, and will not engage in or permit retribution or retaliation of any kind against a Qualifying Worker for seeking to file or having filed a complaint.”).

77. See, e.g., Asbed & Hitov, *supra* note 74, at 521-24 (highlighting the complaints mechanism of the Fair Food Program); Kishanthi Parella, *Outsourcing Corporate Accountability*, 89 WASH. L. REV. 747, 809-15 (2014) (praising the shift from “unilateral” to “bilateral” (meaning stakeholder inclusiveness) strategies for corporate social responsibility); Greg Asbed & Sean Sellers, *The Fair Food Program: Comprehensive, Verifiable and Sustainable Change For Farmworkers*, 16 U. PA. J. L. & SOC. CHANGE 39, 46 (2013) (“When workers encounter a potential Code violation, the FFP provides them access, protected access, with strict consequences for retaliation—to a fast, effective and

“[m]any buyers concentrate on setting standards (through corporate codes) and monitoring (through audits) but do not provide local managers with the support to implement the necessary changes. The weakness of audits is that they measure non-compliance but they generally fail to provide local management with the tools to make the necessary improvements. . . . The way to correct these incentives is to adopt an alternative model for corporate social responsibility that rejects a unilateral, buyer-driven, top-down approach in favor of a partnership model for improving CSR in the value chain.<sup>78</sup>

In conjunction with traceability and transparency mechanisms, the incorporation of third party participation mechanisms can create a critical leverage point for sustainability advocates.<sup>79</sup> These mechanisms need not take the complaints-driven approach used in the Fair Food Program.<sup>80</sup> Rather, such participation mechanisms can take the form of contractually required opportunities for third-party monitoring, a regular requirement for third-party consultation in the development of standards and corporate governance policies, or even the express incorporation of third-party beneficiary enforcement mechanisms within supply chain contracts themselves.<sup>81</sup> Given the large variety of contractual forms used in global supply chain sourcing contracts outlined earlier (leading to often-obscured standard-setting through those contracts), such general third party participation opportunities can provide critical leverage points for advocates to exert pressure on supply chains to reach goals of sustainability.<sup>82</sup>

#### IV. CONCLUSION

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proven complaint process. The complaint procedure is essential to managing risks before they become bigger problems, and the growers who have truly embraced the Fair Food Program understand the benefit of this.”)

78. Parella, *supra* note 77, at 808-09.

79. JASON POTTS, MATTHEW LYNCH, ANN WILKINGS, GABRIEL HUPPE, MAXINE CUNNINGHAM & VIVEK VOORA, *THE STATE OF SUSTAINABILITY INITIATIVES REVIEW 2014*, 27, 52, 164, 181, 325 (2014).

80. Fair Food Program 2014 Annual Report, Fair Food Standard Council (2014).

81. Principles for Responsible Contracts: Integrating the Management of Human Rights Risks Into State—Investor Contract Negotiations, United Nations, 28, 33-34. ”

82. *Id.* at 1, 28, 33-34.



This essay intended to provide a sketch of how sustainability advocates can use structural changes, rather than standard-setting, to incorporate leverage points into supply chain governance. This is not to suggest that any struggle to encourage suppliers to adopt such leverage points will be easy; after all, such measures will open suppliers to additional scrutiny, which may be considered undesirable. However, the case studies I've described suggest that the incorporation of leverage points can be achievable in practice.

Future legal work is still necessary, however, to build model contractual language to better incorporate such structures into supply chain policies and purchasing agreements; grassroots advocates may not have the resources and capacities to do that alone. And again, because of the variety of contractual forms that govern global food supply chains, a modular approach to developing such model terms may be warranted. This essay ends with a call for legal scholars interested in supply chain sustainability to devote greater attention to developing such provisions, and thereby, enhancing the ability of advocates to provide concrete suggestions in their advocacy efforts.