

A Reply to Farber, Tsuji & Jing’s *Thinking Globally, Acting Locally*

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I. INTRODUCTION

Farber et al.’s *Thinking Globally, Acting Locally: Lessons from the U.S., Japan, and China* (the “Article”) asks a critical question: “What prompts some state and local governments to take [climate] action while prompting others to resist?”¹ In the U.S. context, the literature on this question, as the authors point out, is quite extensive.² The authors contribute to this literature most obviously

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¹ Daniel A. Farber, Yuichiro Tsuji & Shiyuan Jing, *Thinking Globally, Acting Locally: Lessons from the U.S., Japan, and China*, 82 Ohio St. L.J. 953, 953 (2021).

² Farber et al., cite to, among other sources: Barry G. Rabe, Mikael Román & Arthur G. Dobelis, *State Competition as a Source Driving Climate Change Mitigation*, 14 N.Y.U. ENV’T L.J. 1 (2005); Sharmila L. Murthy, *States and Cities as “Norm Sustainers”*: A Role for Subnational Actors in the Paris Agreement on Climate Change, 37 VA. ENV’T L.J. 1 (2019); Shannon Roesler, *Competitive Federalism: Environmental Governance as a Zero-Sum Game*, 49 ENV’T L. REP. NEWS & ANALYSIS 10858 (2019); and Katrina M. Wyman & Danielle Spiegel-Feld, *The Urban Environmental Renaissance*, 108 CALIF. L. REV. 305 (2020). Other scholarship in this area includes: Kirsten Engel, *State and Local Climate Change Initiatives: What is Motivating State and Local Governments to Address a Global Problem and What Does this Say About Federalism and Environmental Law*, 38 URB. LAW. 1015 (2006); Jim Rossi, “Maladaptive” Federalism: The Structural Barriers to Coordination of State Sustainability Initiatives, 64 CASE W. RES. L. REV. 1759 (2014); Alexandra B. Klass, *State Standards for Nationwide Products Revisited: Federalism, Green Building Codes, and Appliance Efficiency Standards*, 34 HARV. ENV’T L. REV. 335, 341 (2010); Michael Burger, *Empowering Local Autonomy and Encouraging Experimentation in Climate Change Governance: The Case for a Layered Regime*, 39 ENV’T L. REP. 11161, 11162–64 (2009); and Ann E. Carlson, *Iterative Federalism and Climate Change*, 10 NW. U. L. REV. 1097, 1099–1100 (2009).

through international comparison of subnational climate action in the United States, Japan, and China.³ Moreover, they position the Article as “part of the broader project of understanding the dynamic relationships between central and local governments.”⁴

The authors’ main contribution is to identify a series of factors explaining variation among subnational jurisdictions in the three countries reviewed. These include *economic factors*, such as reliance on fossil fuels or economic opportunities from renewable energy; *local co-benefits*, such as air pollution reduction and congestion alleviation; *climate-related risks*, such as exposure to wildfires, sea-level rise, or extreme storms; and *regulatory capacity* (i.e., jurisdictions with greater capacity are more likely to take climate action).⁵ The authors also note that urban jurisdictions tend to be more pro-climate than rural ones.⁶ “Strikingly, these trends are common to China, Japan, and the United States, despite their many economic and political differences,” the authors note.⁷

The central move of the Article, therefore, is to find common ground among subnational jurisdictions in countries with very different political systems, economies, and cultures. This Reply will interrogate that scholarly move with an eye toward what is gained and what is lost through this sort of “lumping,” which necessarily involves elision of cross-jurisdictional differences.⁸ I argue that greater focus on jurisdictional differences would enhance our understanding of the question at issue.⁹

Specifically, this Reply will elaborate on two points where greater granularity would be helpful. First, the Article could benefit from a clearer definition of “climate leadership” or “climate action.” The authors treat all jurisdictions taking climate action in an undifferentiated way. But, in a period where subnational climate pledges are proliferating, some exploration of how to distinguish more committed climate actors from those engaged in merely symbolic action seems essential. Second, I disagree with some key aspects of the portrayal of the Chinese case and elaborate on my objections here. In short, the Article frames the China case as an example of local action in the face of central intransigence. This overlooks substantial central level dictates on climate

³ The authors also highlight the inclusion of examples of climate action *and* intransigence as a contrast to the existing literature.

⁴ See Farber, Tsuji & Jing, *supra* note 1, at 960.

⁵ *Id.* at 1013–24.

⁶ *Id.* at 1016–17.

⁷ *Id.* at 1024–25.

⁸ Note that the paper also engages in “splitting” or “perceiving ‘different’ clusters as separate from one another” in identifying climate leaders and laggards, but arguably the central move of Farber et al.’s paper is to group subnational climate leaders (and laggards) in the three countries studied and to identify the common factors explaining their emergence. This is an exercise in “lumping.” See Eviatar Zerubavel, *Lumping and Splitting: Notes on Social Classification*, 11 SOCIO. F. 421, 422 (1996).

⁹ Categorization is always subject to scholarly discretion and disagreement. The question is whether more granular analysis to unpack underlying variation is helpful to our understanding or instead reduces analytical clarity. Here, I believe it would be helpful.

change that have emerged over the last decade and a half. Moreover (and perhaps as a result), the authors give inadequate attention to top-down institutional dynamics that play an important role in shaping local government, firm, and citizen action. A more accurate portrayal of domestic institutions and political economy would allow us to better tease out relevant cross-jurisdictional governance features that influence the effectiveness and durability of subnational climate action.

Finally, the authors analogize subnational climate action to “the peer production model used to create important digital resources.”¹⁰ I suggest that a global standard setting analogy would capture some of the same dynamics of global collaboration, while also introducing elements of global competition and alliance building seen in, for example, the technology standard-setting context.

II. VARIETIES OF CLIMATE LEADERSHIP

The Article seeks to explain the factors separating climate leaders from laggards, or climate actors from non-actors. I argue that greater differentiation among varieties of “climate leaders” (or “laggards” for that matter) would be productive. Take the example of subnational jurisdictions participating in national or international climate networks. The authors treat this as a marker of “climate leadership,” and mention as examples the *America is All In* coalition with “147 cities and over a thousand companies;” the Under2 coalition of state and regional governments in the US, Canada, Brazil, Indonesia, and elsewhere; and the C40 global network of cities with members in the US, Japan, and China, among other places.¹¹ Later on, the Article mentions other networks, such as the International Council for Local Environmental Initiatives (ICLEI), the World Mayors Council on Climate Change, and the United Cities and Local Governments (UCLG).¹²

A natural question about these networks is whether these subnational actors are sincere or engaging in symbolic regulation. Few would argue that all participants in these networks are equally committed or likely to live up to their climate promises. One could imagine identifying a variety of “climate leaders,” including “committed climate leaders” (e.g., California), “symbolic climate leaders,” (e.g., the low-carbon city pilot of Baoding, Hubei Province in China), and “stealth climate leaders” (e.g., Texas investment in wind power).

“Committed climate leaders” might be ones where the combination of ideological or political support, economic benefit, and regulatory capacity render climate pledges more durable and likely to be implemented in practice. California, for example, has burgeoning clean technology industries,¹³ limited

¹⁰ Farber, Tsuji & Jing, *supra* note 1, at 953, 1020–24.

¹¹ *Id.* at 955–56.

¹² *Id.* at 1020.

¹³ *See id.* at 1007–08.

reliance on emissions-heavy industries,¹⁴ strong public support,¹⁵ and high-levels of regulatory capacity.¹⁶ “Symbolic climate leaders” might commit to climate action but are sufficiently lacking in one or more of these supportive factors that we are more concerned about the seriousness of their commitments. Kyoung Shin’s study of a low-carbon pilot program in the Chinese city of Baoding demonstrates how local officials engage in climate policy in response to China’s top-down, tournament-style “experimental governance.”¹⁷ Principal-agent problems, however, result in mixed policy performance. Shin documents how initial fervor for climate-friendly implementation (such as the installation of solar PV and LED lightbulbs), and the receipt of accolades from above, was soon followed by policy “unmaking.”¹⁸ “We fulfilled the targets . . . so we did our job. The leaders wanted them, so we installed them. Whether they work or not afterwards is none of our business,” one official said.¹⁹ In other words, in a period of proliferating climate pledges, some attempt to separate the wheat from the chaff seems warranted, if not essential.

Other categories might prove analytically useful as well. One might find value in separating out what you could call “stealth climate leaders.” These are jurisdictions (*e.g.*, Texas)²⁰ that show no obvious ideological commitment to climate policy but that engage in climate action for pragmatic economic or other reasons. Or take the example of climate actors in developing countries. To what extent is subnational climate action in these places due to the “push” from Western countries or organizations? Are transplanted policies compatible with local conditions and interests? Subnational leaders may find prestige or resources from joining such networks, regardless of whether actual policy implementation is likely or feasible or whether imported policies work for local communities. Given the participation of many developing countries in these international climate action networks, one might productively look to the

¹⁴ *See id.*

¹⁵ *See id.* at 1002.

¹⁶ *See* Farber, Tsuji & Jing, *supra* note 1, at 1017 (quoting Ann E. Carlson, *Regulatory Capacity and State Environmental Leadership: California's Climate Policy*, 24 *FORDHAM ENV'T L. REV.* 63, 64–65 (2013)).

¹⁷ *See generally* Kyoung Shin, *Environmental Policy Innovations in China: A Critical Analysis from a Low-Carbon City*, 27 *ENV'TL POL.* 830 (2018) [hereinafter Shin, *Environmental Policy*]. In other work, Shin also unpacks the role of particular local government actors (*i.e.*, the “mission-driven agency”) in driving local government action. *See generally* Kyoung Shin, *Mission-Driven Agency and Local Policy Innovation: Empirical Analysis from Baoding, China*, 22 *J. CHINESE POL. SCI.* 549 (2017) [hereinafter Shin, *Mission-Driven*].

¹⁸ Shin, *Environmental Policy*, *supra* note 17, at 842–45.

¹⁹ *Id.* at 843.

²⁰ Texas is “by far the nation's leader in both installed and under-construction wind capacity, with nearly four dozen active manufacturing facilities -- four times as many as second-place Iowa.” Chris Ramirez, *Thank You, Texas: U.S. Wind Energy Capacity Hits an All-Time High*, *CALLER TIMES* (Sept. 3, 2021), <https://www.caller.com/story/news/2021/09/03/texas-leads-as-national-wind-energy-capacity-reaches-record-high/5681084001/> [https://perma.cc/7Q38-B8VS].

literature on legal transplant and Third-World Approaches to International Law to evaluate whether the particular reasons that drive developing world subnational jurisdictions to take climate action have a meaningful impact on policy efficacy or durability.²¹ The Under2 coalition, for example, could be a fascinating subject of study in this regard. It is a coalition founded by US subnational governments (led by California) with subnational participants in the Asia-Pacific, Africa, Latin America, North America, and Europe.²²

The specific categories here are merely suggestions, but my point is that subnational jurisdictions make climate pledges for different reasons and such variety could be unpacked in a useful way.²³ At minimum, one might be concerned about treating all jurisdictions with climate pledges as “climate leaders.” As company net-zero pledges proliferate, few would argue that all such pledges should be seen as equal. The same should go for subnational climate pledges.

A meta-factor in this analysis is a jurisdiction’s level of transparency and the degree to which information can be used to create accountability. Where these factors are weak, we face basic problems in judging the effectiveness of climate pledges. One could, therefore, imagine a category of “unverifiable climate leaders.”²⁴ Efforts at improving disclosure and the legibility of climate data within UNFCCC negotiations are aimed at this very problem.²⁵ Some incorporation of this factor into the analysis of subnational climate actors and non-actors would be helpful.

²¹ The scholarly literature on legal and policy transplant has, for example, long emphasized the differing motives for transplant in exporting and importing countries and the ways in which laws and policies are transformed once they are moved to new jurisdictions. *See generally, e.g.*, Toby S. Goldbach, *Why Legal Transplants?*, 15 ANN. REV. L. & SOC. SCI. 583 (2019); Alex L. Wang, *Explaining Environmental Information Disclosure in China*, 44 ECOLOGY L.Q. 865 (2018); JAMIE PECK & NIK THEODORE, *FAST POLICY: EXPERIMENTAL STATECRAFT AT THE THRESHOLDS OF NEOLIBERALISM* (2015); Margaret Lewis, *Controlling Abuse to Maintain Control: The Exclusionary Rule in China*, 43 N.Y.U. J. INT’L L. & POL. 629 (2011); Maximo Langer, *From Legal Transplants to Legal Translations: The Globalization of Plea Bargaining and the Americanization Thesis in Criminal Procedure*, 45 HARV. INT’L L.J. 1 (2004).

²² *See generally Under2 Coalition*, THE CLIMATE GROUP, <https://www.theclimategroup.org/under2-coalition> [<https://perma.cc/NNG4-FJPW>].

²³ For an example of this type of analytical approach in a very different subject area, see Paul J. DiMaggio & Walter W. Powell, *The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields*, 48 AM. SOCIO. REV. 147 (1983) (discussing normative, mimetic, or coercive forms of institutional isomorphism).

²⁴ As an analytical matter, one could give subnational jurisdictions a presumption of “symbolic climate leadership” where a relative lack of transparency renders it difficult to evaluate climate performance.

²⁵ *See, e.g., Reporting and Review Under the Paris Agreement*, U.N. FRAMEWORK CONVENTION ON CLIMATE CHANGE, <https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-paris-agreement> [<https://perma.cc/BX9Z-TNY5>].

III. (Mis)UNDERSTANDING THE CHINA CASE

Second, I argue that greater attention to political or cultural variation among the countries studied would also be productive. The basic move of the Article—to identify commonalities among jurisdictions that influence climate leadership—is useful. To the extent that local jurisdictions play an important role in advancing climate policy, we need to understand what causes a local jurisdiction to act, or not.

Yet the authors might have sought to deepen the story they told by identifying distinctions among the jurisdictions that have a meaningful influence on local leadership decisions. Political, economic, social, or cultural dynamics within a jurisdiction may affect the likelihood, speed, and extent of local climate action. To identify such distinctions, one must have an accurate account of the case study jurisdictions. In this regard, I have several disagreements with the way in which the China case is presented.

A. *Overlooking Central-Level Climate Action*

The Article is framed as explaining local government motivations for engaging in climate action in a period of weak or non-existent central action. The puzzle explored is that of subnational jurisdictions “adopting policies more aggressive than their national counterparts.”²⁶ California is the quintessential American example of state-level climate action in periods of federal-level “backpedaling.” In the U.S., numerous, predominately Democrat-leaning states have implemented renewable portfolio standards, energy efficiency programs, or adaptation planning even in periods (such as the George W. Bush and Trump administrations) where the federal government and the U.S. Congress have not taken climate action.²⁷

The Article’s suggestion that China represents a similar situation (“as in the United States, local actions [in China] have showed more vitality”)²⁸ is simply inaccurate. The Article does not mention China’s most significant central-level climate actions, which are found in Chinese development plans, targets, and policies. The best-known of these are China’s 2060 carbon neutrality target and

²⁶ Farber, Tsuji & Jing, *supra* note 1, at 954.

²⁷ For more on local climate action in the United States, see Farber, Tsuji & Jing, *supra* note 1, at 1002–07, 1027–38. On the legislative front, the last major effort at federal legislative action in the United States - the American Clean Energy and Security Act of 2009 (ACES) (the “Waxman-Markey” bill) - passed the House of Representatives but never received Senate approval. Amanda Reilly & Kevin Bogardus, *7 Years Later, Failed Waxman-Markey Bill Still Makes Waves*, E&E NEWS (June 27, 2016), <https://www.eenews.net/articles/7-years-later-failed-waxman-markey-bill-still-makes-waves/> [<https://perma.cc/3GZB-YSTW>].

²⁸ See Farber, Tsuji & Jing, *supra* note 1, at 961. The Japan case study notes: “As in China, the national government in Japan has failed to seize the initiative on climate change.” *Id.* at 976.

its 2030 carbon emissions “peaking” target. These targets were preceded by a range of plan targets on energy intensity, carbon intensity, non-fossil energy contribution, and forest cover that have emerged since China’s 2006 Eleventh five-year plan.²⁹ The means of achieving these targets are then spelled out in a variety of planning and policy documents. These climate policies are described in China’s various submissions to the UNFCCC secretariat, among other places.³⁰ These are sources not considered to be “legal” in China and therefore would not be the typical focus of Chinese legal scholarship.

But the emphasis on “legal” sources of authority is misleading if our concern is with Party-state actions that influence local climate action. For example, the Article notes that “[a]s in the United States, national legislation to regulate carbon emissions seems to be stalled,” equating the Chinese situation with the U.S. dynamic.³¹ Since there is no national climate law, the Article implies, China is not active on climate change at the national level. But, as noted above, this ignores the significant central-level climate action found in plans, targets, policies, and other non-legal authorities. The pilot programs discussed in the Article, including low-carbon city pilots and local emissions trading pilots, are also creatures of top-down planning and do not require any formal

²⁹ See generally, e.g., Alex L. Wang, *The Search for Sustainable Legitimacy: Environmental Law and Bureaucracy in China*, 37 HARV. ENV’T L. REV. 365 (2013) [hereinafter Wang, *The Search*]; Alex L. Wang, *Climate Change Policy and Law in China*, in OXFORD HANDBOOK OF INTERNATIONAL CLIMATE CHANGE LAW 636 (Cinnamon P. Carlarne, Kevin R. Gray, & Richard Tarasofsky eds., 2016) [hereinafter Wang, *Climate Change*], https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2498242 [<https://perma.cc/7RDT-ARZK>]; Alex L. Wang, *Is U.S.-China Climate Action Possible in an Era of Mistrust?*, in THE CHINA QUESTIONS II (forthcoming Aug. 2022) (Maria A. Carrai, Jennifer Rudolph & Michael Szonyi eds., 2022), <https://ssrn.com/abstract=3826681> [<https://perma.cc/ZYB9-WUXM?view-mode=server-side>].

³⁰ See generally, e.g., China, CLIMATE ACTION TRACKER (May 19, 2022), <https://climateactiontracker.org/countries/china/sources> [<https://perma.cc/7CRC-BJ6T>]; *Reporting and Review under the Paris Agreement*, supra note 25; CHINA’S POLICIES AND ACTIONS ON CLIMATE CHANGE, PERMANENT MISSION OF THE PEOPLE’S REPUBLIC OF CHINA TO THE UN (Oct. 29, 2008), http://un.china-mission.gov.cn/eng/chinaandun/economicdevelopment/climatechange/200906/t20090623_8412542.htm [<https://perma.cc/AWD5-Z77D>]; CHINA’S NATIONAL CLIMATE CHANGE PROGRAM, PERMANENT MISSION OF THE PEOPLE’S REPUBLIC OF CHINA TO THE UN (June 30, 2007), http://un.china-mission.gov.cn/eng/chinaandun/economicdevelopment/climatechange/200906/t20090623_8412542.htm [<https://perma.cc/X7CT-X94J>]; *Nationally Determined Contributions Registry*, U.N. FRAMEWORK CONVENTION ON CLIMATE CHANGE, <https://unfccc.int/NDCREG> [<https://perma.cc/JC33-PSU4>]; THE PEOPLE’S REPUBLIC OF CHINA INITIAL NATIONAL COMMUNICATION ON CLIMATE CHANGE, U.N. FRAMEWORK CONVENTION ON CLIMATE CHANGE (Oct. 2004), <https://unfccc.int/resource/docs/natc/chnnc1exsum.pdf> [<https://perma.cc/QD5C-FEQW>]; SECOND NATIONAL COMMUNICATION ON CLIMATE CHANGE OF THE PEOPLE’S REPUBLIC OF CHINA, U.N. FRAMEWORK CONVENTION ON CLIMATE CHANGE, <https://unfccc.int/resource/docs/natc/chnnc2e.pdf> [<https://perma.cc/LE8U-LNMD>].

³¹ Farber, Tsuji & Jing, supra note 1, at 961.

“legal” authorization.³² Such programs may come into being through approval in government plans or policy documents, or even tacit authorization through leadership statements or informal leadership approval. A more accurate portrayal of the Chinese system would need to grapple with these non-legal Party-state authorities. We could, of course, debate the quality of China’s central-level climate commitments or their implementation. My point here is simply that it is inaccurate to suggest that Chinese subnational jurisdictions are acting in the absence of national action.

This critique touches on a broader issue in Chinese legal scholarship. Chinese legal scholars naturally emphasize “law” in their work and may see it as outside the scope of their field to grapple with other forms of governance authority. One might more likely find reference to these other sources of authority in the work of politics, government, or environmental governance scholars. But, as I suggest above, the shortcomings of a law-dominant analytical approach become clear in analyzing Chinese climate action.

B. *Understanding China’s Regulatory Political Economy*

The Article’s identification of common factors explaining subnational climate leadership does not seek to identify relevant variations in the political institutions in the three countries. The express project of the Article is to find common features of climate action despite political differences.³³ But this feels like a missed opportunity.

Strong recent comparative work has shed light on governance and cultural differences between Chinese actors and actors in other jurisdictions. A longer-term study of China, Japan, and the U.S. could likewise begin to work out the critical distinctions among the jurisdictions to explain variations in climate action. I have in mind, for example, Ching Kwan Lee’s book, *The Specter of Global China: Politics, Labor, and Foreign Investment in Africa*³⁴ or Taisu Zhang’s historical work, *The Law and Economics of Confucianism: Kinship and Property in Preindustrial China and England*.³⁵

These comparative studies find common ground among the jurisdictions, but it is the differences identified that are most illuminating. For example, Lee’s

³² Studies have recognized the agency of local actors in shaping the policy environment as well. My point here is that local-level action cannot be understood without recognition of China’s heavily top-down institutional framework. *See generally, e.g., Shin, Environmental Policy, supra* note 17.

³³ Farber, Tsuji & Jing, *supra* note 1, at 959 (“Of course, distinctive features of each country do much to shape or constrain actions by subnational units of government. Yet, despite dramatic differences in culture, legal systems, and governance structures, there are some striking commonalities in terms of geographic patterns of support and resistance to climate policies.” (footnote omitted)).

³⁴ CHING KWAN LEE, *THE SPECTER OF GLOBAL CHINA: POLITICS, LABOR, AND FOREIGN INVESTMENT IN AFRICA* (2017).

³⁵ TAIJU ZHANG, *THE LAWS AND ECONOMICS OF CONFUCIANISM: KINSHIP AND PROPERTY IN PREINDUSTRIAL CHINA AND ENGLAND* (2017).

book articulates the logic of different varieties of capital, namely “global private capital” and “Chinese state capital.”³⁶ These varieties of capital are similar in that they both represent structures of power in the Zambian copper mining region studied.³⁷ But global capital emphasizes “profit maximization,” while Chinese state capital focuses on “profit optimization.”³⁸ The latter refers to balancing economic goals against political objectives, such as the steady supply of raw materials for export to China and longer-term political relationships with the host government.³⁹ By contrast, global private capital is much less concerned with country-to-country political relations and supremely mobile, exiting as soon as commodity prices fell to a sufficient degree.⁴⁰

Zhang’s book argues that cultural differences in pre-industrial China and England resulted in different domestic power relations and variation in legal development.⁴¹ Confucian hierarchies in Qing and Republican China prioritized generational seniority, whereas pre-industrial England prized landed wealth as the primary determinant of sociopolitical status.⁴² Thus, Chinese mortgage law at the time developed in a more “poor friendly” way (because one could have status without wealth) that made it more difficult to consolidate land into large, unified holdings.⁴³ Zhang argues that this offers some explanation for the “Great Divergence” – or China’s dramatic decline as compared to Europe from the 1700s to the mid-20th Century.⁴⁴

In the climate policy context, we might ask whether different institutions (and political incentive structures) in the three countries lead to variation in local level climate commitment. To answer this question, we would need a more comprehensive understanding of the institutional dynamics and political economy of climate regulation that the authors begin to elaborate on in the Article. I offer a brief sketch of the political economy of China’s multi-level bureaucracy to illustrate how such an exercise would enrich our understanding of local climate action in China.

To begin with, China is a large, geographically dispersed unitary state, but operates as a *de facto* federalist system.⁴⁵ Some have described China’s governance system as a top-down, tournament style, ‘experimentation under hierarchy’ framework with a compensation-for-performance reward system for bureaucrats.⁴⁶ In explaining local inaction on environmental regulation nearly

³⁶ See LEE, *supra* note 34, at xii.

³⁷ See *id.*

³⁸ *Id.* at 11–12.

³⁹ *Id.* at 33.

⁴⁰ See *id.* at xiii.

⁴¹ ZHANG, *supra* note 35, at 9–13.

⁴² *Id.* at 19–25.

⁴³ *Id.*

⁴⁴ *Id.* at 2–9, 13–19.

⁴⁵ See ZHENG YONGNIAN, *DE FACTO FEDERALISM IN CHINA: REFORMS AND DYNAMICS OF CENTRAL-LOCAL RELATIONS* xv (2007).

⁴⁶ See Shin, *Environmental Policy*, *supra* note 17, at 831. Economists have noted the developmental benefits of China’s more decentralized M-form governance structure and

25 years ago, Kenneth Lieberthal explained the “national political-economic” deal in which “each level of government will grant the level just below it sufficient flexibility to enable the lower level to grow its economy rapidly enough to maintain social and political stability. Rapid economic growth, accompanied by social and political stability, is, in turn, rewarded with promotions and other benefits.”⁴⁷ During this earlier period, Beijing passed many national-level environmental laws, but because of the low political priority of environmental regulation, environmental goals received little local attention.⁴⁸ Weak environmental protection was tacitly accepted by the center so long as it did not affect stability or economic development.⁴⁹

For various reasons, central officials began to elevate the priority of environmental regulation a decade and a half ago.⁵⁰ Beginning with China’s Eleventh five-year plan (2006-10), environmental targets became an increasingly important part of this “tournament style” framework.⁵¹ This began with targets for energy efficiency and pollution reduction and later expanded to include carbon intensity, non-fossil energy, forest cover, and others.⁵² The authors say that these sorts of environmental targets exercise a “more subtle influence” than law,⁵³ but my own work shows that these personnel evaluation targets, and the central government’s efforts to implement them, had a much greater immediate salience to local officials than did any new law or legal amendment.⁵⁴ Other research has documented the increasing political importance of these environmental targets, particularly post-2013, when China began a “war on pollution” to reduce local air pollution in the regions around Beijing (the so-called Jin-Jing-Ji region), Shanghai (Yangtze River Delta), and Guangzhou (Pearl River Delta).⁵⁵

contrasted it to the more centralized U-form structure of the Soviet Union. *See generally* Yingyi Qian, Gérard Roland & Chenggang Xu, *Coordination and Experimentation in M-Form and U-Form Organizations*, 114 J. POL. ECON. 366 (2006).

⁴⁷ Kenneth Lieberthal, *China’s Governing System and Its Impact on Environmental Policy Implementation*, 1 WILSON CTR. CHINA ENV’T SERIES 4, 4–5 (1997), <https://www.wilsoncenter.org/sites/default/files/media/documents/publication/CES%201%20Kenneth%20Lieberthal%20Article%20with%20Charts%20and%20Graphs.pdf> [https://perma.cc/FM84-Y8X3].

⁴⁸ Wang, *The Search*, *supra* note 29, 386–392.

⁴⁹ *Id.*

⁵⁰ Alex L. Wang, *China’s Environmental Tipping Point?*, in CHINA IN AND BEYOND THE HEADLINES 112, 113 (Tim Weston & Lionel Jensen eds., 2012), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2130452.

⁵¹ Wang, *The Search*, *supra* note 29, at 367–68.

⁵² *See, e.g.*, Wang, *Climate Change*, *supra* note 29, 636; Alex L. Wang, *Symbolic Legitimacy and Chinese Environmental Reform*, 48 ENV’T L. 699, 716–17 (2018).

⁵³ Farber, Tsuji & Jing, *supra* note 1, at 973.

⁵⁴ Wang, *The Search*, *supra* note 29, at 367–68.

⁵⁵ *See generally, e.g.*, Ning Leng & Cai (Vera) Zuo, *Tournament Style Bargaining within Boundaries: Setting Targets in China’s Cadre Evaluation System*, 31 J. CONTEMP. CHINA 116 (2022).

For local officials, the political and economic rewards or punishments associated with compliance or non-compliance with environmental targets matter.⁵⁶ Local officials now understand that “green” targets are among the most important within China’s cadre evaluation system.⁵⁷ These officials may be drawn to opportunities to participate in pilot programs to accomplish political achievements, outcompete rival jurisdictions, obtain government funding, or burnish the jurisdiction’s “green” credentials to attract tourism, business investment, or other economic benefits.⁵⁸ The authors get at this complexity by noting that “[l]ocal governments in China act to some extent like profit-seeking businesses, and yet they do not entirely behave in profit-maximizing ways.”⁵⁹ This is akin to what CK Lee calls “profit-optimization.”⁶⁰ In other words, local leaders are motivated by economic *and* political motives. Of course, this is also true for local politicians in the U.S. and Japan, but the institutional incentives in each jurisdiction differ. Exactly how they differ is a fascinating question for further research.

In the Chinese context, local officials balance environmental targets against other formal and informal incentives. Shirking, goal displacement, and data falsification are common responses.⁶¹ Some officials seek an interest convergence or “bundling” of central and local interests.⁶² Local officials have sometimes engaged in overzealous or “blunt regulation.”⁶³ At times, policy objectives are accomplished, more or less.⁶⁴ A comprehensive account would also examine how private and state-owned firms at different levels of government, citizens, civil society, and international actors behave within this context.⁶⁵ The Article suggests that Chinese officials are balancing climate

⁵⁶ See Wang, *The Search*, *supra* note 29, at 368; Leng & Zuo, *supra* note 55, at 116.

⁵⁷ See, e.g., Leng & Zuo, *supra* note 55, at 124–25.

⁵⁸ See *id.*

⁵⁹ Farber, Tsuji & Jing, *supra* note 1, at 972 (footnotes omitted).

⁶⁰ See *supra* notes 38–40 and accompanying text.

⁶¹ Wang, *The Search*, *supra* note 29, at 412; Shin, *Environmental Policy*, *supra* note 17, at 836.

⁶² Genia Kostka & William Hobbs, *Local Energy Efficiency Policy Implementation in China: Bridging the Gap Between National Priorities and Local Interests*, 2012 CHINA Q. 765, 766 (2012).

⁶³ Denise S. van der Kamp, *Blunt Force Regulation and Bureaucratic Control: Understanding China's War on Pollution*, 34 GOVERNANCE 191, 192 (2021); see also Hou Liqiang, *Ministry: No Tolerance for Rigid Approaches to Local Pollution*, CHINA DAILY (Sept. 20, 2019), <https://www.chinadaily.com.cn/a/201909/20/WS5d84971ca310cf3e3556ca79.html> [https://perma.cc/YCT3-S5MN].

⁶⁴ See Mian Yang, Zheng Hu, & Jiahai Yuan, *The Recent History and Successes of China's Energy Efficiency Policy*, WIREs ENERGY & ENV'T 715, 717–19 (2016); Xia Wang et al., *Do Residential Building Energy Efficiency Standards Reduce Energy Consumption in China? – A Data-Driven Method to Validate the Actual Performance of Building Energy Efficiency Standards*, 131 ENERGY POL. 82, 82 (2019).

⁶⁵ The authors state that “local governments rarely face . . . direct public pressure . . . to take immediate and drastic climate actions.” Farber, Tsuji & Jing, *supra* note 1, at 970.

policy against other policy objectives like housing, sanitation, or waste disposal, or considerations of the “general interest.”⁶⁶ This may be so in some instances, but it is a relatively narrow conception of what drives local action. It goes without saying that we need to incorporate into our analysis how local officials, firms, and citizens operate within the set of top-down political institutions that hold such powerful sway in China.

Considering the broader political institutional framework in China would provide a richer context for understanding the Article’s central Chinese case study concerning the so-called Greater Bay Area (GBA) program. The GBA is a relatively recent name for a broad, long-term political, economic, and social project to integrate the mainland Chinese Pearl River Delta region with the Special Administrative Regions of Hong Kong and Macau.⁶⁷ As the authors note, it is a centrally sanctioned initiative listed in China’s Thirteenth Five-Year Plan.⁶⁸ It comes at a time of political upheaval and economic uncertainty in Hong Kong, as the city grapples with the 2017 National Security Law⁶⁹ and continues to lose economic ground to other cities in the region like Shanghai and Singapore.⁷⁰ Green initiatives in the GBA could be understood as an effort by central leaders in Beijing and the region itself to forge a new pathway forward.

The GBA encompasses the Pearl River Delta region, which was one of the three priority regions designated by the central government in its “war on

But local pressure regarding severe air pollution in Beijing was an important impetus for policies with climate implications. The idea of air and climate co-control has been an important feature of Chinese environmental regulation this past decade. The question of public influence on Chinese subnational climate policy should not be so easily dismissed.

⁶⁶ Farber, Tsuji & Jing, *supra* note 1, at 971.

⁶⁷ For background on the Greater Bay Area, see generally, e.g., BAY AREA COUNCIL ECONOMIC INST. FOR THE HONG KONG TRADE DEV. COUNCIL, BAY TO BAY: CHINA’S GREATER BAY AREA PLAN AND ITS SYNERGIES FOR US AND SAN FRANCISCO BAY AREA BUSINESS (June 2021), <http://www.bayareaconomy.org/files/pdf/BayToBay-UnderstandingChinasGBAPlan.pdf> [<https://perma.cc/MU6M-5W5C>].

⁶⁸ See Farber, Tsuji & Jing, *supra* note 1, at 964.

⁶⁹ See *The Law of the People’s Republic of China on Safeguarding National Security in the Hong Kong Special Administrative Region*, HONG KONG GAZ. (H.K.) (2020), <https://www.gld.gov.hk/egazette/pdf/20202448e/egn2020244872.pdf> [<https://perma.cc/T7PM-UXS4>] (promulgated by the Standing Comm. People’s Cong., June 30, 2020, effective June 30, 2020).

⁷⁰ See *Singapore and Shanghai Threaten Hong Kong’s Status as Financial Hub*, STRAITS TIMES (Nov. 8, 2019), <https://www.straitstimes.com/business/economy/singapore-and-shanghai-threaten-hong-kongs-status-as-financial-hub> [<https://perma.cc/62VW-9N4D>]; Saloni Sardana, *Singapore’s Financial Centre Will Emerge as Big Winner of a Draconian Chinese Law*, BUS. INSIDER (May 30, 2020), <https://www.businessinsider.com/singapore-hong-kong-financial-hub-chinese-law-ranking-2020-5> [<https://perma.cc/3PRJ-AXHJ>]. But see Rachel Rosenthal, *Singapore Won’t Displace Hong Kong as a Financial Center*, WASH. POST (Feb. 21, 2022), https://www.washingtonpost.com/business/singapore-wont-displace-hong-kong-as-a-financial-center/2022/02/20/a5c4f0b4-92a1-11ec-bb31-74fc06c0a3a5_story.html [<https://perma.cc/V57L-GLV9>].

pollution.”⁷¹ More expansive GBA efforts in environmental regulation could be interpreted as an extension of the significant central environmental planning, regulation, and enforcement that accompanied that effort. What’s more, Shenzhen, one of the key cities in the Greater Bay Area initiative, began its life as a Special Economic Zone (SEZ) at the beginning of China’s “reform & opening” period.⁷² It is *the* quintessential Chinese pilot program in the modern era, and it is no surprise to see it continuing that role in the realm of climate policy.

The GBA region is also one of the wealthiest areas of China, developing much earlier than interior regions of the country.⁷³ As China’s political leaders have emphasized environmental protection, a norm has emerged of expecting the wealthy coastal regions to take on more responsibility – a sort of domestic Chinese “common but differentiated responsibilities.”⁷⁴ All these aspects of the GBA initiative have significant central-level involvement and local action cannot be understood apart from this central-local interaction.

To be fair, the authors get at some of the features of this system in the discussion of the political economy of local climate policies in China.⁷⁵ Yet, the ultimate conclusions from the China case study emphasize features like “heavy urbanization, economic emphasis on the technology sector, and a relatively weak presence of SOEs.”⁷⁶ Intransigent jurisdictions have “low urbanization, a high presence of SOEs, and economic reliance on heavy industry or resource extraction.”⁷⁷ The institutional incentives emanating from China’s center are given little prominence in this account.⁷⁸

⁷¹ Michael Greenstone & Patrick Schwarz, *Is China Winning Its War on Pollution?*, AIR QUALITY LIFE INDEX (Mar. 2018), <https://aqli.epic.uchicago.edu/wp-content/uploads/2018/08/China-Report.pdf> [<https://perma.cc/M7GL-R85N>].

⁷² Kenji Kawase, *Shenzhen's Success Overshadows China's Other Special Economic Zones*, NIKKEIASIA (Oct. 17, 2020), <https://asia.nikkei.com/Economy/Shenzhen-s-success-overshadows-China-s-other-special-economic-zones> [<https://perma.cc/LEG6-FBGD>].

⁷³ Tim Summers, *China's Greater Bay Area Has Real Economic Power*, CHATHAM HOUSE (Sept. 20, 2018), <https://www.chathamhouse.org/2018/09/chinas-greater-bay-area-has-real-economic-power> [<https://perma.cc/R26J-B4Z2>]; *Into the New: New Routes*, BUS. INSIDER, <https://www.businessinsider.com/sc/greater-bay-authority-economic-force-asia-2021-5> [<https://perma.cc/DR9A-PXKU>].

⁷⁴ Alex L. Wang, *Regulating Domestic Carbon Outsourcing: The Case of China and Climate Change*, 61 UCLA L. REV. 2018, 2023 (2014).

⁷⁵ Farber, Tsuji & Jing, *supra* note 1, at 970–975.

⁷⁶ *Id.* at 975.

⁷⁷ *Id.*

⁷⁸ The authors suggest that Chinese subnational jurisdictions have “taken independent initiatives” on climate change, citing to *Qi et al*, *China’s Local Government Response to Climate Change* (2008). Farber, Tsuji & Jing, *supra* note 1, at 958. But Qi’s account is a discussion of top-down incentives and the ways in which local governments respond to those incentives. The impact of “local needs” on that local response is considered, but this does not constitute independent climate action in the face of central-level intransigence or inaction.

IV. A BRIEF NOTE ON THE LIMITS OF THE PEER PRODUCTION ANALOGY

The authors offer the intriguing analogy of peer production to conceptualize global subnational climate networks. This analogy captures the benefits of collaboration and highlights the role of reputational benefits and network effects. I suggest that the adjacent area of standard setting would be more apt. It would encompass the information sharing, reputational and network benefits of peer production, while also introducing the idea of competition among nations and the subnational actors themselves.⁷⁹

Subnational actors are not only influenced by domestic competitive dynamics described above, but are also embedded in broader nation-to-nation competition for economic and political advantage. The stakes of standard-setting for subnationals and the countries within which they reside can be much higher than suggested by the peer production model, particularly for the major economies of the world like the U.S., China, and Japan. As one observer put it:

Technical standards have strategic importance for the United States as they provide economic benefits that foster innovation and, indirectly, help consolidate U.S. national power. Standards benefit individual firms that are able to successfully have their proposed specifications adopted. Their effective advocacy, and the firm-level benefits of standardization generally, translates into aggregate benefits for the respective economies in which the firms are incorporated.⁸⁰

A standard-setting analogy brings in notions of coalition-building, where national governments and their firms lobby and position themselves for influence in standard-setting bodies.⁸¹ It also helps to illuminate the fact that all subnational actors are not created equal. Actors from the U.S. have significant advantages due to economic strength, incumbency, and other factors. Among emerging economies, China is making the strongest push to take a leading role in a variety of standard-setting bodies. Other participants have less ability to take the lead and must navigate a world traversed by the hegemonic powers. Likewise, in the world of subnational climate action, actors from major economies control the agenda to a much greater extent than those from other

⁷⁹ See generally Laurie Clarke, *Technical Standards-Setting Is Shaping up to Be the Next China-US Showdown*, TECH MONITOR (June 15, 2021), <https://techmonitor.ai/technology/technical-standards-setting-shaping-up-next-china-us-showdown> [<https://perma.cc/56GX-VMMM>]; Joshua Park, *Breaking the Internet: China-US Competition Over Technology Standards*, DIPLOMAT (Feb. 9, 2022), <https://thediplomat.com/2022/02/breaking-the-internet-china-us-competition-over-technology-standards/> [<https://perma.cc/XS5L-EUV5>].

⁸⁰ Mark Montgomery & Natalie Thompson, *What the U.S. Competition and Innovation Act Gets Right About Standards*, LAWFARE (Aug. 13, 2021), <https://www.lawfareblog.com/what-us-competition-and-innovation-act-gets-right-about-standards> [<https://perma.cc/BV3V-4QJW>].

⁸¹ *Id.*

nations. The peer production analogy suggests a democratic parity of power that does not seem to be the case. It is worth considering whether a standard-setting analogy offers a more comprehensive picture of the dynamics at play in the subnational climate action context.

V. CONCLUSION

Farber et al. do a great service by exploring variation in subnational climate action within three different countries that account for about half of global greenhouse gas emissions. The Article helps to lay the groundwork for further research to understand and develop typologies of inter-country variations. But any comparative study that engages in lumping must elide some differences, and a natural critique is to ask for more differentiation and detail.

This Reply argues that we can only comprehend local government motivations if we have a more complete understanding of the institutions within which local officials operate. What's more, thinking of subnational climate policy networks as analogous to firms engaged in standard-setting coalitions introduces dynamics of nation-to-nation competition, coalition building, and power differentials that are absent from the peer production comparison.