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Climate Legislation in China: Institutional Approach and Challenges

Anni Dai, Fan Dai[1]

Abstract

Despite significant efforts towards decarbonization, China's progress in climate legislation has been relatively slow. This paper explores China's current climate laws and the institutional approach behind the legislating efforts, identifying a central challenge: the lack of coordination among laws enacted at different times with varied focuses. It argues that a dedicated climate law could enhance accountability for climate goals and address the gaps in climate litigation. The paper also reviews China's lawmaking institutions, discussing the roles and interactions of key players in shaping climate governance. Additionally, it compares legislative models from other countries, proposing components that could be adapted for China. The paper concludes with recommendations for a comprehensive climate legislation framework in China.

About the Authors

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I. Introduction

Under the Paris Agreement, China aims to peak its carbon emissions by 2030 and achieve carbon neutrality by 2060.[2] While implementing various decarbonization policies, the lack of a specific climate law undermines the credibility and effectiveness of these efforts.

Defining "climate law" is not straightforward, due in part to the cross-cutting nature of climate change. Climate action intersects with various economic and social sectors to different degrees, with each being governed by distinct regulations.[3] The complex and cross-cutting nature of climate action, affecting multiple sectors, necessitates a broad definition of "climate law" that includes parliamentary acts, executive orders, and other significant policies impacting climate change.[4] In recognition of these direct and indirect relationships, this study proposes to use "climate law" to refer to laws or acts that directly or indirectly intersect with climate change and are promulgated exclusively by legislative bodies; notably, this omits other climate policies and regulations that constitute a significant portion of China's climate governance. Even so, this study's definition of China's climate laws covers a full spectrum of global governmental interventions that directly address the causes of climate change within their operative sections.[5] These range from overarching climate laws (e.g., the EU Climate Law) to sector-specific laws targeting key drivers of climate change (e.g., the Renewable Energy Law in China). Also included in this definition are laws whose primary focus is not climate but whose provisions contribute to climate responses and offer climate co-benefits (e.g., the Wetland Conservation Law in China, which primarily enhances conservation but also includes carbon sequestration measures).[6]

China has pursued climate legislation since its 2009 Resolution on Actively Responding to Climate Change.[7] A dedicated working group

2. Ministry of Ecology and Environment, Progress on the Implementation of China's Nationally Determined Contributions (2022), https://www.mee.gov.cn/ywgz/ydqhbh/qhbhlf/202211/W020221111760730462299.pdf [https://perma.cc/6J8N-4PUA].

3. Eloise Scotford & Stephen Minas, *Probing the Hidden Depths of Climate Law: Analysing National Climate Change Legislation*, 28 Rev. of Eur., Compar. & Int'l Env't L. 67 (2019).

4. For instance, the Climate Change Laws of the World dataset defines climate laws and polices broadly as legal documents that are directly relevant to climate change mitigation, adaptation, loss and damage or disaster risk management. *See* Climate Change Laws of the World, *Methodology*, https://climate-laws.org/methodology [https://perma.cc/7HPF-2C7A] (last updated Aug. 19, 2024); Shaikh M. Eskander et al., *Global Lessons from Climate Change Legislation and Litigation*, 2 Env't and Energy Pol'y and the Econ. 44 (2021); Gabriela Iacobuta et al., *National Climate Change Mitigation Legislation, Strategy and Targets: A Global Update*, 18 Climate Policy 1114 (2018).

5. Eloise Scotford & Stephen Minas, *supra* note 3, at 67.

6. *Id.*

7. Ministry of Ecology and Environment, *Resolution of the Standing Committee of the National People's Congress on Actively Responding to Climate Change* (2009),

was formed in 2011, leading to the inclusion of climate legislation in the State Council's legislative agenda in 2016.[8] Despite these efforts, a finalized bill for institutionalizing China's decarbonization efforts has yet to be drafted, due to the difficulty of dividing proposed climate legislation from existing laws.[9] Bridging this gap will require a thorough analysis of key stakeholders, challenges, and feasible approaches to China's climate legislation.

This paper is organized as follows. After Part II reviews existing climate law and politics literature, Part III discusses a broad scope of climate laws and how they unfold in a path-dependent manner. Part IV then reviews the factors that make it necessary for China to enact a dedicated climate law. Part V examines key players in China's climate lawmaking process and climate politics that shape the country's options for climate lawmaking. Part VI then compares climate legislation models in foreign jurisdictions to gain applicable insights for China. Finally, Part VII concludes with recommendations for a successful approach to climate legislation in China.

II. Literature Review on Climate Law and Politics

This study adopts an institutional perspective to link China's climate laws with its evolving climate politics. Using Hall and Taylor's definition, "institution" refers to "the formal or informal procedures, routines, norms and conventions embedded in the organizational structure of the polity or economy."[10] China's institutional structure has long been viewed as "fragmented,"[11] meaning that below the very peak of political hierarchy, power is broadly dispersed both horizontally and vertically. The state bureaucracy has responded decisively and pragmatically to immediate and severe challenges,[12] but has lacked a coherent capacity for addressing long-term, multi-faceted problems.[13] Due to the

https://www.mee.gov.cn/ywgz/fgbz/fl/202303/t20230314_1019572.shtml [https://perma.cc/2FLV-JCZC].

8. Ministry of Ecology and Environment, *Response Letter to Proposal No. 0487 (Resource and Environment Category No. 052) of the Fourth Session of the 13th National Committee of the Chinese People's Political Consultative Conference* (2021), https://www.mee.gov.cn/xxgk2018/xxgk/xxgk13/202112/t20211202_962615.html [https://perma.cc/52YN-29J6].

9. Fei Teng & Pu Wang, *The Evolution of Climate Governance in China: Drivers, Features, and Effectiveness*, 30 Environmental Politics 141 (2021).

10. Peter A. Hall & Rosemary C. R. Taylor, *Political Science and the Three New Institutionalisms*, 44 Political Studies 936 (1996).

11. Bureaucracy, Politics, and Decision Making in Post-Mao China (Kenneth G. Lieberthal & David M. Lampton eds., Berkeley: University of California Press) (1992).

12. Sebastian Heilmann & Elizabeth J. Perry, *Embracing Uncertainty: Guerrilla Policy Style and Adaptive Governance in China*, *in* Mao's Invisible Hand: The Political Foundations of Adaptive Governance in China 1, 1–29 (2011).

13. Mark Beeson, *Coming to Terms with the Authoritarian Alternative: The Implications and Motivations of China's Environmental Policies*, 5 Asia & the Pac. Pol'y Studies 34 (2017).

dynamics of factional politics, China's approach to addressing environmental problems is often perceived as environmental authoritarianism, despite significant informal participation by social elites.[14] Against this backdrop, a growing literature dissects the power relations behind China's climate politics and its proliferation of climate policies.[15] Competing goals and infighting have characterized national energy planning,[16] with non-governmental actors (and state-owned enterprises in particular) driving pro-renewable narratives;[17] Xu notes this state of affairs prevents any single entity from monopolizing policy formulation.[18] A significant output of China's climate politics is a "vague or overly complex" system of climate policies that have emphasized reductions in emission intensity,[19] as Marks observes, which may not align central ambitions with local government incentives.

In forming climate institutions, the literature explores three approaches: (a) institutional displacement, whereby an institution is "purpose-built" to address climate change; (b) policy layering, where new responsibilities are layered onto existing institutions established for other purposes; and (c) influence by "latent" institutions, which may affect climate outcomes, even when not intentionally focuses on climate change.[20] Beyond these processes, countries are developing two general climate narratives that shape understandings of interests and political coalitions: (a) mitigation-centric narratives, with a policy focus on targets and emissions; and (b) embedded climate narratives, which understand climate change as embedded within and even subsidiary to other objectives (e.g., job creation, green growth, energy transition).[21] Dubash argued that over time, China has moved from an embedded framing to one more aligned with a mitigation-centric approach.[22] Teng and Wang examined this shift, noting that the establishment of dedicated, durable climate institutions in China has been driven by the government's desire to achieve performance objectives and establish state legitimacy.[23]

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14. Bruce Gilley, *Authoritarian Environmentalism and China's Response to Climate Change*, 21 Env. Pol. 287 (2012).

15. Anita Engels, *Understanding How China is Championing Climate Change Mitigation*, 4 Palgrave Commc'ns 1 (2018).

16. Long Zhang et al., *The Dragon Awakens: Innovation, Competition, and Transition in the Energy Strategy of the People's Republic of China, 1949–2017*, 108 Energy Pol'y 634 (2017).

17. Wei Shen, *Who Drives China's Renewable Energy Policies? Understanding the Role of Industrial Corporations*, 21 Env't Dev. 87 (2017).

18. Xu Yi-chong, *China's Giant State-Owned Enterprises as Policy Advocates: The Case of the State Grid Corporation of China*, 79 The China J. 21 (2018).

19. Danny Marks, *China's Climate Change Policy Process: Improved but Still Weak and Fragmented*, 19 J. of Contemp. China 971 (2010).

20. Navroz K. Dubash, *Varieties of Climate Governance: The Emergence and Functioning of Climate Institutions*, 30 Env't Pol. 1 (2021).

21. *Id.*

22. *Id.*

23. Fei Teng & Pu Wang, *supra* note 9, at 143.

Among emergent climate institutions and narratives, legal scholars have extensively studied the outcomes of climate legislation, particularly their effectiveness in reducing greenhouse gas (GHG) emissions and discovered intriguing normative implications. Eskander and Fankhauser reiterated the crucial role of parliaments,[24] noting that the increased number of climate laws have led courts to rule in favor of enhanced climate protections.[25] Chinese legal scholars have traditionally viewed climate-related legislation as an extension of environmental laws,[26] a perspective that has consolidated extensive climate actions[27] into the narrative of environmental lawmaking.[28] Furthermore, they have paid considerable attention to climate change litigation, exploring its scope, recent trends, and gaps.[29] Despite the limited power of Chinese courts and the relative prominence of the administrative system, Zhao et al. argue that Chinese climate laws still have the potential to shape judicial behaviors in deliberate, if unspectacular, ways.[30] Consolidating climate change with air pollution[31] and environmental impact assessments[32] are two potential avenues for advancing climate change litigation in China.

Literature in law and politics offers distinct perspectives on constructing China's paradigms of climate governance, illustrating changes in climate politics and the interplay between judicial and legislative systems. This study seeks to bridge the law and politics spheres, with a narrow focus on the institutions within which policies and laws are contested. This entails a review of climate legislation in a path-dependent context, along with key players involved in driving the lawmaking process. Ultimately, this study offers a unique exploration of the challenges facing climate legislation in China, as well as feasible models for its expanded role in China's climate governance.

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24. Shaikh M. Eskander & Sam Fankhauser, *Reduction in Greenhouse Gas Emissions from National Climate Legislation*, 10 Nature Climate Change 750 (2020).

25. Shaikh M. Eskander et al., *supra* note 4, at 4.

26. Zhilin Mu et al., *Environmental Legislation in China: Achievements, Challenges and Trends*, 6 Sustainability 8967 (2014); Ying Shen, *Combating Climate Change: China's Efforts on Environmental Legislation*, 44 Env't. L. Rep. 10153 (2014); Ying Shen, *An Overview of China's Environmental Legislation Regarding Climate Change*, 2 Env't. L. Rep. (2014).

27. Isabella Kaminski, *Climate Litigation up in 2021, with Private Sector Now Exposed*, Dialogue Earth (Dec. 21, 2021), https://dialogue.earth/en/climate/climate-litigation-up-in-2021-with-private-sector-now-exposed [https://perma.cc/84LX-FCGV].

28. Xiaobin Pan & Bowen Yang, *Reality and Perfection of China's Addressing Climate Change Legislation in Post-Paris Agreement Era*, 23 Int'l Env't Agreements: Pol., L., and Econ. 311 (2023).

29. Yue Zhao et al., *Prospects for Climate Change Litigation in China*, 8 Transnat'l Env't L. 349 (2019); Xiangbai He, *Mitigation and Adaptation Through Environmental Impact Assessment Litigation: Rethinking the Prospect of Climate Change Litigation in China*, 10 Transnat'l Env't L. 413 (2021).

30. Yue Zhao et al., *supra* note 29, at 350.

31. *Id.*

32. Xiangbai He, *supra* note 29, at 420.

III. Climate Change Laws in China: A Historical Review

China's journey towards climate legislation began with the 2009 Resolution on Actively Responding to Climate Change.[33] However, despite various sectoral laws and national strategies, a comprehensive climate law is still lacking. This Part outlines the key legislative initiatives and identifies the need for a cohesive legal framework to support China's decarbonization goals. The major examples we reviewed include:

1. *The 2009 Resolution on Actively Responding to Climate Change*. This initiative inserts climate legislation into the legislative agenda, emphasizing it as an essential task in completing China's legal system.34
2. *Various sectoral laws that tackle causes of climate change or generate climate co-benefits*. These include laws dedicated to deploying renewable energy, improving energy efficiency, and promoting sustainable resource use. This category also includes laws that primarily focus on protecting the environment but also yield climate co-benefits.
3. National strategies, regulations, and measures created by the State Council and its ministries or commissions aimed at climate change mitigation and adaptation. This includes the national "1+N" climate policy framework, which contains overarching guidance for carbon peaking and carbon neutrality, alongside various 2030 Peaking Plans with detailed implementation plans in key fields and complementary measures including technical, financial, and systematic mechanisms.35
4. *Provincial measures to mitigate and adapt to climate change*, which includes Qinghai's Provincial Government's Measurements to Addressing Climate Change, promulgated by its provincial congress;36 and other provincial initiatives for sectors such as energy, transportation, industry, and buildings.

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33. Ministry of Ecology and Environment, *supra* note 7.

34. *Id.*

35. Under the "1+N" framework, the "1" indicates the Working Guidance for Carbon Dioxide Peaking and Carbon Neutrality in Full and Faithful Implementation of the New Development Philosophy, "Overarching Guidance," issued by the State Council, while the "N" refers to various policies, including the 2030 Peaking Plan; implementation plans for carbon peaking in the fields of energy, industry, transportation, urban and rural construction, and others; supporting measures on science and technology, carbon sinks, statistical accounting, inspection and assessment; and safeguard policies on fiscal, financing, and pricing methods. *See* Dimitri De Boer and FAN Danting, *Impressive Progress in China's 1+N Policy Framework*, China Council for International Cooperation on Environment and Development (2022), https://cciced.eco/climate-governance/how-is-progress-in-chinas-1n-policy-framework [https://perma.cc/VT57-TSES].

36. Qinghai Sheng Yingdui Qihou Bianhua Banfa (青海省应对气候变化办法) [Qinghai Province's Approach to Climate Change] (promulgated by the Qinghai Provincial People's Government, July 23, 2010, effective Oct. 1, 2010), Qinghai Government Gazette, http://www.qinghai.gov.cn/xxgk/xxgk/fd/lzyj/gzk/202112/

Above all, China's response to climate change is ruled by planning—driven by a wide array of plans and policies at national and subnational levels across various sectors. The breadth and richness of China's climate plans demonstrate its political ambition to tackle the issue. But despite its robust political commitments, China has not yet enacted a law to transform those commitments into legally binding obligations. As shown in Table 1, major climate laws were enacted *before* China determined it would proactively address climate change. While these laws significantly contribute to climate governance, they were not designed with climate change as their primary focus. Therefore, China's climate laws are embedded within, and subsidiary to, other objectives.

Table 1. The evolution of climate laws in China

Periods	*Laws and amendments*	*Primary goals and approaches*
Stage One (1984–1992)	• 1984 The Forest Law (2009 and 2019 amendments) • 1985 The Grassland Law (2013 and 2021 amendments) • 1987 The Air Pollution Control Act (2015 and 2018 amendments) • 1989 The Environmental Protection Law (2014 amendments)	• Aiming to support economic growth • Introducing end-of-pipe measurements • Conducting "command-and-control" • Conducting ex post regulation
Stage Two (1993–2012)	• 1995 The Electric Power Law (2009, 2015 and 2018 amendments) • 2002 The Clean Production Promotion Law (2012 amendments) • 2002 The Environmental Impact Assessment Law (2016 and 2018 amendments) • 2005 The Renewable Energy Law (2009 amendments) • 2007 The Energy Conservation Law • 2008 The Circular Economy Promotion Law • 2010 The Water and Soil Conservation Law	• Aiming to support sustainable development • Conducting some cautionary measurements • Introducing some economic incentives • Introducing some ex ante programs
Stage Three (2013-onward)	• 2018 The Prevention and Control of Soil Contamination Law • 2021 The Wetland Protection Law	• Aiming to support an integrated ecological functionality and promote an ecological civilization • Providing a more comprehensive regulatory framework

China's climate laws are categorized into two types: ecosystem-based laws, with potential climate co-benefits; and industry-based laws, focusing on clean energy growth to power a sustainable economy. Ecosystem-based laws prioritize enhancing environmental functions and services through protection and restoration initiatives and have evolved in three stages. The first stage saw the passage of four laws that were driven by economic development needs and often drafted by macroeconomic planning departments under the State Council.[37] During this

t20211221_188692.html [https://perma.cc/Q2YN-ECGZ].

37. Yang Zhaoxia, *50 Years of Environmental Legislation in China: The Intergenerational Evolution from Environmental Law 1.0 to 3.0*, 3 J. Beijing Inst.

period, issues of natural resource conservation and environmental protection were approached in a piecemeal and fragmented fashion, without comprehensive spatial planning or seeking a balance between economic development and environmental protection. Instead of being premised on protecting the environment, these laws were framed as instruments to stimulate the economy. For instance, the primary purposes of the 1984 Forest Law and 1985 Grassland Law were to define land use rights among various stakeholders and provide guidelines for planning, developing, and managing natural resources.

During the second stage, ecosystem-based laws were framed around the concept of "sustainable development,"[38] marking a shift from "end-of-pipe" measures to a more proactive approach. For instance, the 2010 Water and Soil Conservation Law emphasized precautionary actions, establishing systems and standards for planning, risk assessment, and monitoring. Industry-based laws were also passed during this period, with a focus on optimizing energy use in production processes. Aimed at supporting economic growth by stabilizing energy supply, these laws often lacked robust enforcement mechanisms, resulting in few successful lawsuits and persistent enforcement challenges. For instance, the Renewable Energy Law was completed in 2004 after less than nine months of drafting, and then passed into law with no amendments in 2005.[39] Following this rush to passage, an amendment was made in 2009 in response to power companies' resistance to purchasing then-expensive renewable energy.[40] The amendment mandated power companies to "fully purchase renewable energy,"[41] but assigned enforcement to both the "electricity regulatory authority"[42] and grid enterprises, leading to weak compliance.

Tech. 88 (2022), http://www.fxcxw.org.cn/dyna/content.php?id=24497 [https://perma.cc/9CRE-99VW].

38. *Sustainable Development Goals*, United Nations Development Programme, https://www.undp.org/sustainable-development-goals [https://perma.cc/H2V6–2638].

39. *Renewable Energy Law Under Consideration*, China Daily (2004), http://www.china.org.cn/english/environment/113260.htm [https://perma.cc/XRY9-D4S2].

40. Bruce Gilley, *supra* note 14, at 288.

41. Zhonghua Renmin Gongheguo Ke Zaisheng Nengyuan Fa (中华人民共和国可再生能源法) [Renewable Energy Law of the People's Republic of China] (promulgated by the Standing Comm. Nat'l People's Cong., Feb. 28, 2005, effective Jan. 1, 2006, amended Dec. 26, 2009), art. 14, https://english.mofcom.gov.cn/Policies/LawsRegulations/art/2013/art_f1de59700ebd47c69367af1013f6daef.html [https://perma.cc/4DXH-SXMQ].

42. The term "electricity regulatory authority" refers to the State Electricity Regulatory Commissions and energy relevant ministries under the State Council. The State Electricity Regulatory Commission was dissolved in 2013, whose regulatory authority is partially consolidated into the National Energy Administration under the NDRC. However, this "electricity regulatory authority" has not clearly specified which entity should be the ultimately responsible regulatory agency. Hao Zhang, *Prioritizing Access of Renewable Energy to the Grid in China: Regulatory Mechanisms and Challenges for Implementation*, 3 Chinese J. Env't L. 167 (2019).

Amid increasing recognition of climate change impacts, the State Council included climate legislation in its annual legislative agenda for the first time in 2016. During this third stage of climate lawmaking, there has been a growing focus on enhancing integrated ecosystem functions and improving carbon sequestration. For instance, the latest Wetland Conservation Law aims to build a multiple-tiered regulatory framework to protect wetlands, biodiversity, and ecosystem services, and was significantly influenced by the international Ramsar Convention.[43]

Beyond these two categories of climate law, the Environmental Impact Assessment (EIA) law is noteworthy. This law is interpreted to incorporate GHG emissions into its assessments at the project management level.[44] Pilot projects thus are being explored in major energy-intensive industries across several provinces, including Hebei, Jilin, Zhejiang, Shandong, Guangdong, Chongqing, and Shaanxi.[45] In this regard, the EIA law seems to hold much promise for integrating climate-friendly regulations into China's legal regime.

Hence, rather than creating a stand-alone climate law or conducting sweeping revisions of existing laws, China's climate legislation is shaped in a path-dependent manner, constantly allowing new responsibilities or features to be grafted onto existing laws. One obvious challenge here is coordination: namely, how to coordinate different laws that were promulgated at different times with varied focuses. As climate impacts become more widely acknowledged, ecosystem-driven laws have evolved to systematically address environmental issues while enhancing climate co-benefits. Industry-based laws, however, remain weak in their enforcement mechanisms and ability to mobilize sufficient resources to advance clean energy. Moreover, while GHG emission now constitutes a component of environmental impact assessments, this linkage arises from the political arena and only via pilot programs conducted at a small scale. From a procedural perspective, expanding the metrics of environmental impact assessments to encompass climate impacts could facilitate broader coordination and engagement in tackling climate change. Nonetheless, the broader question remains: what institutional approach should China take to move beyond grafting piecemeal climate change actions onto existing laws and pilot programs in order to enable coherent, systematic climate action?

43. Lushan Huang, *How Has the Ramsar Convention Shaped China's Wetland Protection?*, Dialogue Earth (Jan. 12, 2023), https://dialogue.earth/en/water/how-has-the-ramsar-convention-shaped-chinas-wetland-protection [https://perma.cc/672S-S3VK].

44. Ministry of Ecology and Environment, Notice on Issuing the "14th Five-Year Plan for the Implementation of Environmental Impact Assessment and Pollution Discharge Permit Work," (2022), https://www.mee.gov.cn/xxgk2018/xxgk/xxgk03/202204/t20220418_974927.html [https://perma.cc/6X78–7LD4].

45. *Id.*

IV. The Importance and Challenges of Climate Lawmaking

The establishment of a dedicated climate law is crucial for two main reasons: formalizing climate targets into binding obligations and addressing the gaps in climate litigation. Such a law would provide a legal basis for long-term climate actions and ensure accountability and consistency across different governance levels.

A. *Codifying climate goals to drive transformative change*

Climate lawmaking transforms climate goals into legally binding obligations. Across the globe, emission reductions have been driven more effectively by legislative acts than by executive orders,[46] which speaks to the efficacy of climate laws and the crucial role of legislative bodies. In China's case, the dual goals of carbon peaking by 2030 and carbon neutrality by 2060 necessitate both short- and long-term climate actions at all systematic levels. In this respect, climate lawmaking can serve as a powerful tool for accountability and consistency, thereby enhancing the effectiveness of climate initiatives and measures across different time frames and levels of enforcement. Over time, broader economic shifts and evolving social norms will drive transformative change.

Codifying climate goals serves three key purposes. First, the deliberations and negotiations inherent in the lawmaking process are important ways of addressing the myriad issues and disagreements involved in tackling climate change. Further, codification offers an opportunity to identify promising models of climate solutions and leverage successful local experiments that have demonstrated their efficacy and readiness for wider implementation. Finally, the methodology of climate lawmaking aggregates climate efforts with clear boundaries while evolving to incorporate other innovative forms of climate governance.[47]

B. *Addressing the gaps in climate change litigation*

Litigation[48] is a catalyst for effective climate change responses. Through the application and interpretation of statutes, prods, and pleas, as well as the regulatory effects of the litigation process,[49] courts are perceived as "a battlefield to complement lobbying campaigns in the hallways of legislative chambers."[50] Outside of China, climate change litigation has been framed by three major strategies, which are based on (a) statutory

46. Shaikh M. Eskander & Sam Fankhauser, *supra* note 24, at 752.

47. Eloise Scotford & Stephen Minas, *supra* note 3.

48. Climate change litigation has a broad definition, indicating "any piece of federal, state, tribal, or local administrative or judicial litigation in which the tribunal decisions directly and expressly raise an issue of fact or law regarding the substance or policy of climate change causes and impacts." *See* David Markell & J. B. Ruhl, *An Empirical Assessment of Climate Change in the Courts: A New Jurisprudence or Business as Usual?,* 64 Fla. L. Rev. 15, 27 (2012).

49. Xiangbai He, *Mitigation and Adaptation through Environmental Impact Assessment Litigation: Rethinking the Prospect of Climate Change Litigation in China*, 10 Transnat'l Env't L. 413, 425 (2021).

50. *Id.* at 419.

claims that require regulators to act on reducing GHG emissions,[51] (b) government enforcement claims that strategically demand the state take more aggressive actions,[52] and (c) human rights claims that center on climate justice being fulfilled by interpreting the human rights embodied in basic laws.[53]

China, however, takes a different approach to climate change litigation. Rather than directly targeting GHG emission reductions, China's climate-related lawsuits involve (a) contract-based civil actions steered by the government's low-carbon policies,[54] (b) statutory claims that cite China's low-carbon policies,[55] and (c) public interest litigation brought by prosecutors or environmental non-governmental organizations that produce climate co-benefits.[56]

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51. For example, in *Massachusetts v. EPA*, the federal Supreme Court in the U.S. decided that the EPA has authority under the Clean Air Act to regulate vehicle tailpipe GHG emissions. *See* Massachusetts v. EPA, 549 U.S. 497 (2007).

52. For example, *Urgenda Foundation v. State of the Netherlands*, where a Dutch environmental group and 900 Dutch citizens sued the Dutch government to require more action to prevent global climate change, and the court in the Hague found the government's existing emissions pledge insufficient to meet its contribution to UN goals and ordered the state to limit GHG emissions to 25 percent below 1990 levels by 2020. *See* Urgenda Foundation v. State of the Netherlands, Sabin Ctr. for Climate Change L., https://climatecasechart.com/non-us-case/urgenda-foundation-v-kingdom-of-the-netherlands [https://perma.cc/659X-BGDG] (last visited Jan 24, 2024).

53. For example, *Leghari v. Federation of Pakistan*, where Ashgar Leghari sued the Pakistan national government for its failure to carry out the National Climate Change Policy of 2012 and the Framework for Implementation of Climate Change Policy (2014–2030), and such failure had resulted in immediate impacts on Pakistan's water, food, and energy security and impacts to his own fundamental right to life. The court, in granting Leghari's claims, reasoned "the delay and lethargy of the State in implementing the Framework offend the fundamental rights of the citizens," as constitutional rights to life and human dignity include the right to a healthy and clean environment. *See* Leghari v. Federation of Pakistan, Sabin Ctr. for Climate Change L., https://climatecasechart.com/non-us-case/ashgar-leghari-v-federation-of-pakistan [https://perma.cc/BP53–26CZ] (last visited Jan 24, 2024).

54. For example, *Taibiya Company v. Nuohuawei Company*, where the plaintiff brought the action over disputes on the verification of carbon reductions based on their agent's contract. *See* China's First Carbon Reduction Case Goes to Trial, Beijing News (Apr. 15, 2011), https://m.bjnews.com.cn/detail/155143905614954.html [https://perma.cc/8BJG-RCEX].

55. For example, *The Friends of Nature Institute v. Ningxia State Grid*, where the plaintiffs sued Ningxia State Grid for its abandonment of wind and solar power in violation of Article 14 of the Renewable Energy Law, outlining the Grid company's obligation to fully purchase electricity generated from renewable energy. The court denied most of the plaintiff's claims but stressed the State Grid's social responsibility to facilitate the use of renewable energy and implement its low-carbon transition plan. *See* The Friends of Nature Institute v. Ningxia State Grid, Sabin Ctr. for Climate Change L., https://climatecasechart.com/non-us-case/the-friends-of-nature-institute-v-ningxia-state-grid [https://perma.cc/25A7-DHKW] (last visited Jan 24, 2024).

56. For example, *Beijing Chaoyang District Friends of Nature Environmental Research Institute v. Shandong Jinling Chemical Co.*, where the plaintiff sued Jinling Chemical Company to stop emitting air pollutants and eliminate all dangers to the atmospheric environment. *See* Supreme People's Court, Beijing Chaoyang District

Globally, judicial review tends to examine whether existing statutes can justify climate policies or regulations or whether regulatory decisions are sufficient to tackle climate issues. By comparison, the role of Chinese courts is less proactive. The relative inactivity of its courts may contribute to the prominence of China's administration in its climate governance, evident in a plethora of administrative regulations and measures.[57] Moreover, lawsuits in China can only be brought on statutory claims; without a clear statutory cause of action, litigation cannot proceed. Consequently, there are no lawsuits in China that compel governments to take progressive action or suspend programs that are less friendly to the climate.

These gaps in climate change litigation influence China's paradigm for climate action. With courts being inactive, integrating normative values (e.g., climate justice, fair transition) into climate responses is challenging. Despite China's Supreme Court expressing its intention to engage proactively in climate-related disputes,[58] existing barriers, particularly the statutory threshold for lawsuits, immobilize courts from influencing outcomes or inspiring climate responses. Without a statutory basis, climate change litigation in China faces persistent challenges. In tort-based cases, there is a lack of legal basis for cause and difficulty in quantifying damages and establishing causal links to hold carbon emitters accountable. In administrative cases, remedies often fall short of compensating losses caused by emissions, as China's administrative laws only mandate that governments fulfill their duties or rectify illegal actions.

V. Key Players in China's Climate Legislation

China's legislative and executive branches play critical roles in shaping climate laws. The National People's Congress (NPC) and its standing committee hold the highest legislative authority, while various government bodies contribute to policy-making and implementation. However, overlapping responsibilities and insufficient coordination pose challenges to effective climate governance.

A. *Legislative bodies and the process*

China's legislative system operates within a hierarchical structure (Figure 1). The National People's Congress (NPC) and its standing

Friends of Nature Environmental Research Institute v. Shandong Jinling Chemical Co., *Public Interest Litigation Case*, World Jud. Conf. on Env't (Mar. 7, 2017) http://wej.court.gov.cn/news/view-162.html [https://perma.cc/5KJ4-GH8U].

57. Xiangbai He, *supra* note 49, at 430.

58. In 2016, China's Supreme Court issued an opinion on the enhancement of judicial functions in promoting the construction of ecological civilization and green development, including the "climate change" case as a distinct category. *See* Opinions on Giving Full Play to the Role of Judicial Functions to Provide Judicial Services and Guarantees for Promoting Ecological Civilization Construction and Green Development, Gen. Off. of the Supreme People's Ct. (May 26, 2016), http://gongbao.court.gov.cn/Details/3c4fb71f30beecb980640f3165d447.html [https://perma.cc/BW8S-86HL].

committee are responsible for national legislation in accordance with China's Constitution.[59] Provincial congresses can enact local regulations tailored to their circumstances, provided they are consistent with national laws and regulations.[60]

In the national legislative process, a bill must undergo a rigorous procedure before it can be presented for a vote in the NPC. The bill is first introduced to the NPC's standing committee and, if accepted, is then placed on the legislative agenda or subjected to a bill hearing for further consideration by a specialized committee.[61] Once on the agenda, the bill goes through a three-step examination, commonly known as the "three readings," and during these readings, the bill and its proposed amendments are presented and discussed among different groups, with various research institutions, organizations, and professionals involved in a consultative process.[62] Simultaneously, with the standing committee's approval, the bill may be published for public opinion, and any received feedback is taken into account by the standing committee. The bill for China's Energy Law provides a useful example. The legislative process began in 2006 and developed three versions of publicly accessible drafts, but the first two were not introduced to the NPC's standing committee. In April 2024, the third version of the bill was submitted to the standing committee for deliberation and published for public opinion.[63] Following the examination procedure, the fate of the bill rests in the hands of the NPC standing committee, which will determine if it is withdrawn or put to a vote. If the draft bill is approved by a majority of NPC members or its standing committee, it will be officially promulgated through a decree signed by the President of the People's Republic of China.

B. *Key regulators and approaches to climate policy-making*

The State Council is delegated to introduce a climate bill to the legislative bodies.[64] Under the State Council, various branches are tasked with drafting a climate bill within their respective regulatory authority. As shown in Figure 1, China's climate governance is fragmented, with climate-related power scattered across different ministries. The Ministry of Ecology and Environment (MEE) and its subordinated Department of Climate Change are the principal agencies in charge of climate issues, including drafting climate-related targets, measurements, and strategies.[65]

59. Xianfa art. 58, (2018) (China), https://law.pkulaw.com/chinalaw/7c7e81f43957c58bbdfb.html [https://perma.cc/GU93-FXB9].

60. *Id.* at art. 56.

61. *Id.* at art. 33–56.

62. *Id.*

63. Ma Chenchen, *Exclusive Interview with Chen Xinghua: The Draft Energy Law Finally Welcomes its First Review, What Will it Change?*, China Bus. Network, (May 6, 2024, 16:26), https://m.yicai.com/news/102096198.html [https://perma.cc/6U8P-G3JU].

64. National People's Congress, *supra* note 59 at art. 17.

65. *Climate Change Department*, Ministry of Ecology and Env't of China, https://www.mee.gov.cn/zjhb/bjg/qhs [https://perma.cc/C48H-AN5H] (last visited Apr

This structure resulted from the national governmental reorganizations in 2018, where the Department of Climate Change was moved from the National Development and Reform Commission (NDRC) to the newly formed MEE, with the aim of managing environmental affairs holistically to avoid policy overlap and contradiction, as climate change had been affiliated with both environmental and energy consumption goals.[66] However, drafting a climate law for a given sector can fall to other ministries. For example, the National Energy Administration (NEA) and NDRC are tasked with drafting an energy law, as indicated in the 2023 legislative agenda set forth by the State Council.[67]

To enhance cross-ministry coordination, a National Leading Group on Climate Change Response (NLGCCR) was established for high-level climate decision-making. This body was formed in 1990 within the then-State Council's Environmental Protection Commission and then upgraded in 2007 into a 20-ministry entity headed by the Premier.[68] In March 2011, NLGCCR issued a call for written submissions from the public for "advice and suggestions" on a draft climate law intending to cohere China's existing suite of laws and regulations.[69] More often, NLGCCR exerts its influence on climate decision-making through the high political standing of its members. While regulatory powers dominate the decision-making process, outside participation still occurs, formally and informally, primarily from government-funded or -owned research institutes, such as the Energy Research Institute under the NDRC.

As climate change has become more politicized in the post-pandemic era,[70] it has become a top political priority and cascaded through the executive branches in a campaign-style fashion.[71] This shift

16, 2024).

66. China Youth Daily, *Climate Department's Transfer Complete: What Are the New Developments in China's Response to Climate Change?* (2018), https://www.rmzxw.com.cn/c/2018–11–01/2205867.shtml [https://perma.cc/F6HG-SHMK]; Fei Teng & Pu Wang, *supra* note 9, at 145.

67. The General Office of the State Council issued Notice of the State Council on the Legislative Work Plan for 2023, Gen. Off. of the State Council (May 31, 2023), https://www.gov.cn/zhengce/content/202306/content_6884925.htm [https://perma.cc/9DYH-FX6F].

68. General Office of the State Council, Notice of the General Office of the State Council on Adjusting the Composition of the Leading Group for National Climate Change and Energy Conservation and Emission Reduction Work (2019), https://china.huanqiu.com/article/9CaKrnJBeDC [https://perma.cc/42XR-SCE2].

69. Bruce Gilley, *supra* note 14, at 300.

70. Kai Jia & Shaowei Chen, *Could Campaign-Style Enforcement Improve Environmental Performance? Evidence From China's Central Environmental Protection Inspection*, 245 J. Env't Mgmt. 282, 282 (2019); Fei Teng & Pu Wang, *supra* note 9, at 151.

71. *See Xi Jinping Presided Over the Meeting of the Political Bureau of The Central Committee of the Communist Party of China to Analyze and Study the Current Economic Situation and Economic Work,* Xinhua News (appearing on the Central People's Government of the People's Republic of China website) (Apr. 30, 2021), https://www.gov.cn/xinwen/2021–04/30/content_5604218.htm [https://perma.

was initiated and led by the Communist Party system,[72] with the State Council and its relevant ministries converting political tasks into administrative targets, initiatives, and programs. Since the release of the Central Committee of the Communist Party's opinion on advancing carbon peaking in 2021,[73] over 20 national carbon peaking measures across the State Council and its nine ministries,[74] as well as 136 provincial carbon peaking measures, have been released in three years.[75] This top-down, campaign-style model can quickly mobilize sufficient resources to accomplish tasks through the power of the political system. However, it also disrupts the bureaucracy by relying on political mobilization and resources allocated from the top down to achieve specific goals, which may hinder the long-term transformational efforts needed to address climate change. This results from a mismatch of power and responsibility at the local government level, leading to implementation bias or a lack of resources to achieve allocated targets.[76] For instance, in 2021, ten provinces had to inconvenience their residents and industries by restricting power use to reach centrally mandated energy intensity targets,[77] and were criticized by then-Premier Li Keqiang.[78]

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cc/XVM9–47V3]; *see also* Ma Chenchen, *What does the corrective campaign-style "carbon reduction" proposed at the Politburo meeting refer to?*, China Bus. Network (July 30, 2021), https://m.yicai.com/news/101126562.html [https://perma.cc/Z634-FZMB] [hereinafter "Carbon reduction" proposed at the Politburo meeting].

72. Kai Jia & Shaowei Chen, *supra* note 70, at 283.

73. Central Committee of the Communist Party of China & State Council, *Opinions of the Central Committee of the Communist Party of China and the State Council on Fully, Accurately, and Comprehensively Implementing the New Development Concept and Advancing Carbon Peaking and Carbon Neutrality Work*, Central People's Government of the People's Republic of China (Oct. 24, 2021, 19:04), https://www.gov.cn/zhengce/2021–10/24/content_5644613.htm [https://perma.cc/EFU6-TS9D].

74. The ministries are the National Development and Reform Commission, Ministry of Ecology and Environment, Ministry of Industry and Information Technology, State Administration for Market Regulation, Supreme People's Court, Ministry of Natural Resources, Ministry of Housing and Urban-Rural Development, Ministry of Transportation, National Forestry and Grassland Administration, China Meteorological Administration. *See* China Carbon Neutrality Tracker, https://ccnt-beta.igdp.cn [https://perma.cc/RB4R-87J9] (last visited July 17, 2024).

75. These numbers are manually calculated by the authors. The calculation involves searching for "carbon peaking measures" in the China Carbon Neutrality Tracker dataset, then filtering the results to include only national or provincial measures between 2021 and 2024. *Id.*

76. Yihang Zhao et al., *Evaluating the Effects of Campaign-Style Environmental Governance: Evidence From Environmental Protection Interview in China*, 27 Env't Sci. Pollution Research 28333, 28345 (2020); Nicole Ning Liu et al., *Campaign-Style Enforcement and Regulatory Compliance*, 75 Pub. Admin. Rev. 85, 92 (2015).

77. "Carbon reduction" proposed at the Politburo meeting, *supra* note 71.

78. *Li Keqiang Chaired the Meeting of the National Energy Commission, Emphasizing the Need to Ensure Stable and Secure Energy Supply and to Enhance the Support Capacity for Green Development. Han Zheng Attended the Meeting,* Xinhua News (appearing on the Central People's Government of the People's Republic of China website) (Oct. 11, 2021), https://www.gov.cn/xinwen/2021–10/11/



Figure 1. Key players in China's climate lawmaking

C. *Challenges*

The legislative process can provide both a legal basis for climate action and a forum for competing interests to negotiate China's climate policy. In this dynamic, a climate bill is subject to political pressures and inputs from key regulators and social elites, who may desire rapid-fire policies and regulations across different governmental levels. This can lead to a central-local misalignment of responsibilities and resources, resulting in implementation gaps. Furthermore, upon examining China's lawmaking structures and power flows, two more potential challenges emerge.

First, duplication of rulemaking roles contributes to weak enforcement of laws. Despite the formation of the NLGCCR and the cabinet-level ministry, MEE, to enable a holistic approach to climate change, power in climate governance is splintered, with a wide range of executive branches having overlapping roles in exercising regulatory power over climate change, directly or indirectly. This fragmented institutional structure implies that no single institution is delegated the authority to coordinate inter-ministerial conflicts; thus, turf battles could

content_5641907.htm [https://perma.cc/5BGD-T6FN].

lead to failures in specifying which agencies are responsible for the content of climate laws, thereby delaying or preventing their enforcement.

In addition, legislative efforts are centralized. This may reflect the polycentric nature of climate change impacts, which transcend local borders and therefore require legislation from a higher authority with extended jurisdiction. Furthermore, this centralization is deeply rooted in China's legislative system, where China's Constitution and its Legislative Law provide limited legal basis for local legislation. Unlike the division of power and checks and balances provided by the Constitution and the courts in the U.S., China's central-local power dynamic evolved through power sharing and bargaining, which is fluid and rarely defined by law. Hence, within the context of China's legislative power flows, local legislative bodies can play only a trivial role in climate legislation. This is true despite the fact that in the political arena, the central government supports local governments in experimenting with various climate pilot programs, actions, and plans. Failing to take sufficient input from subnational governments in the climate lawmaking process may result in laws that lack feasibility or efficacy for compliance.

VI. Comparative Analysis of Climate Legislation

Across the globe, climate legislation has ramped up following the Paris Agreement, with all signatory parties adopting at least one law addressing climate change or facilitating the transition to a low-carbon economy.[79] Roughly three-quarters of parties have enacted umbrella laws[80] aimed at reducing GHG emissions.[81]

A comparative analysis of climate legislation in major emitting countries highlights the importance of an umbrella law that institutionalizes climate goals and establishes enforcement mechanisms. The study suggests that China could benefit from adopting a similar approach, complemented by sectoral laws and robust monitoring and review systems. While each country's national climate lawmaking is tailored to its particular governance framework, valuable lessons can be learned from comparing major climate laws among the world's large GHG emitters, including the U.S., the European Union, the United Kingdom, Japan, and Australia.

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79. Grantham Research Institute on Climate Change and the Environment, *What is Climate Change Legislation?*, London Sch. of Econ. and Pol. Sci. (Oct. 4, 2022), https://www.lse.ac.uk/granthaminstitute/explainers/what-is-climate-change-legislation [https://perma.cc/8ES8-DMBQ].

80. In this study, an umbrella is defined as an overarching and strategic legal instrument that has fundamentally defined a country's approach to climate change or created a unifying institutional structure. *See* Sam Fankhauser et al., *The Political Economy of Passing Climate Change Legislation: Evidence From a Survey*, 35 Glob. Env't Change 52 (2015); Shaikh M. Eskander & Sam Fankhauser, *supra* note 24, at 751.

81. Shaikh M. Eskander & Sam Fankhauser, *supra* note 24, at 751.

TABLE 2. COMPARISON OF MAJOR CLIMATE LAWS AMONG LARGE GLOBAL GHG EMITTERS[82]

Category	*Australia*	*United States*	*Japan*	*United Kingdom*	*European Union*
Umbrella Law					
	Climate Change Act 2022[83]		Act on Promotion of Global Warming Countermeasures 1998[84]	Climate Change Act 2008[85]	EU Climate Law 2021[86]
Sectoral Law					

82. This table is compiled and summarized by authors. The laws are sourced from Climate Change Laws of the World dataset, using regional filters and sector-specific categories, such as "energy," "building," "environment and natural resources," "climate adaptation," "capacity building," and "finance." The results are then consolidated and presented in the table. *See* CLIMATE CHANGE LAWS OF THE WORLD, *supra* note 4.

83. Australia's Climate Change Act 2022 includes (1) GHG emission reduction targets; (2) required annual climate change statement; (3) setting advisory functions of climate change authority; (4) periodic review. *See Climate Change Act 2022*, DEP'T OF CLIMATE CHANGE, ENERGY, THE ENV'T AND WATER OF AUSTL. GOV'T (May 2, 2023), https://www.legislation.gov.au/C2022A00037/latest [https://perma.cc/8E69-CEVJ].

84. Japan's Act on Promotion of Global Warming Countermeasures 1998 includes (1) GHG emission reduction targets; (2) establishment of the Council of Ministers for Global Environmental Conservation; (3) mandatory reporting; (4) a domestic credit mechanism to help implement the Kyoto Mechanism Credit system. *See Act on Promotion of Global Warming Countermeasures*, INT'L ENERGY AGENCY (Nov. 5, 2017), https://www.iea.org/policies/277-act-on-promotion-of-global-warming-countermeasures [https://perma.cc/X8PL-DYH5].

85. The UK's Climate Change Act 2008 includes four components: (1) net zero target: bring all GHG to net zero by 2050; (2) carbon budgets: set up a series of five-year carbon budgets; (3) committee on climate change: establish an independent body to provide evidence-based advice on climate solutions; (4) national adaptation program: set out key actions. *See* Grantham Research Institute on Climate Change and the Environment, *What is the 2008 Climate Change Act?*, LONDON SCH. OF ECON. AND POL. SCI. (Apr. 30, 2020), https://www.lse.ac.uk/granthaminstitute/explainers/what-is-the-2008-climate-change-act [https://perma.cc/E58S-K2BR].

86. The EU Climate Law includes (1) medium- and long-term targets; (2) carbon budgets; (3) measurement and evaluation mechanisms; (4) climate policy integration that requires all sectors and policy areas must be aligned with, and contribute to, the achievement of the long-term climate goals by the delegations of power to EU Commissions to assess EU drafts and proposals; (5) the European Scientific Advisory Board on Climate Change for scientific expert advice; (6) access to justice; (7) inclusiveness and public participation. *See* Kati Kulovesi et al., *The European Climate Law: Strengthening EU Procedural Climate Governance?*, 36 J. ENV'T L. 23 (2024).

Category	*Australia*	*United States*	*Japan*	*United Kingdom*	*European Union*
Energy	Offshore Electricity Infrastructure Act 2022 Greenhouse and Energy Minimum Standards Act 2012 Australian Renewable Energy Agency Act 2011 National Greenhouse and Energy Reporting Act 2007 Renewable Energy (Electricity) Act 2000	Public Utility Regulatory Policies Act 1978	Act on Purchase of Renewable Energy Sourced Electricity by Electric Utilities 2011 Fundamental Law on Energy Policy 2002 Law Concerning Special Measures for Promotion of New Energy Use 1997 Law Concerning the Rational Use of Energy 1979	The Energy Act 2013 and its Amendments Feed-in Tariffs for Renewable Electricity 2010 Carbon Reduction Commitment Energy Efficiency Scheme 2010 Community Energy Saving Program 2009	Directive on the Development of Alternative Fuels in Infrastructure 2023 Directive on the Promotion of the Use of Energy from Renewable Sources 2018
Building	Building Energy Efficiency Disclosure Act 2010		Low Carbon City Promotion Act 2012		Directive on the energy performance of buildings 2018
Environment and natural resources	Offshore Petroleum and Greenhouse Gas Storage Act 2006	Endangered Species Act 1972 Clean Water Act 1972 Clean Air Act 1970 National Environmental Policy Act 1970		Environment Act 2021	
Climate adaptation			Climate Change Adaptation Law 2018	Flood and Water Management Act 2010 Agriculture Act 2020	Directive on Land Use, Land Use Change and Forestry 2013
Capacity building	Climate Change Authority Act 2011		Law Concerning the Promotion of Contracts Considering Reduction of Emissions of Greenhouse Gases and Others by the State and Other Entities 2007	Leveling-up and Regeneration Act 2023	Directive on EU Emissions Trading Scheme (EU ETS) 2003
Finance	Clean Energy Finance Corporation Act 2012	Inflation Reduction Act 2022	Act Partially Amending the Law on Special Tax Measures 2012	The Finance Act 2011	Energy Taxation Directive 2003

An umbrella law serves as the cornerstone for institutionalizing long-term climate goals. It usually provides a comprehensive framework with a singular focus on climate change, across all sectors, covering all greenhouse gasses, often with both near-term and mid-century mitigation targets. Such laws also incorporate three key components, as seen in the UK, Australia, Japan, and the EU: (a) an independent climate change advisory body; (b) periodic monitoring and evaluation requirements; and (c) consolidation of government authority to shape sweeping climate policies and associated implementation measures. Furthermore, these laws may include additional important components. For instance, the UK Climate Change Act of 2008 and the EU Climate Law set up a series of carbon budget plans[87] to make sure that the staged targets align fairly and equitably with the overarching need to attain long-term goals. The EU Climate Law also observes how schemes affect the quality of climate governance, such as access to justice, inclusiveness, and public participation.[88] In general, umbrella climate laws are regarded as facilitating "procedural climate governance,"[89] offering necessary accountability for climate goals and providing pathways, toolkits, and mechanisms to ensure their realization.

Sectoral climate laws are crafted incrementally, addressing climate risks in tandem with broader social, economic, and environmental objectives. These laws typically arise from regulatory innovations, which can be broadly classified into three categories:

1. *Economic incentives*, designed to stimulate demand for climate solutions, such as carbon pricing schemes (e.g., Australia's carbon emission scheme) or climate finance tools (e.g., UK's feed-in tariff scheme).
2. *Command-and-control approaches*, establishing stringent or mandatory standards and shifting to climate-friendly behaviors, such as renewable energy utilization and energy efficiency, through technical standards for industrial sectors (e.g., Japan's multiple special measures on promoting alternative energy resources).
3. *Direct interventions* by states in areas where economic incentives may fall short, such as ecosystem conservation and restoration projects to mitigate climate change (e.g., nature-based climate solutions) or supporting vulnerable communities and areas affected by climate policies to ensure a just transition (e.g., EU Social Climate Fund).

87. The carbon budget provides a five-year, statutory cap on total GHG emissions, which should not be exceeded, in order to meet the overall emission reduction commitments. *See* Grantham Research Institute on Climate Change and the Environment, *supra* note 85.

88. Kati Kulovesi et al., *supra* note 86, at 37.

89. *Id.* at 25.

These sectoral climate laws are often driven by energy use concerns. As climate change gains prominence, sectoral laws become more carbon-centric, where carbon reduction is used to drive other improvements. This evolving landscape of climate laws indicates a gradual shift from sector-specific solutions that deliver climate co-benefits to a more systematic approach for combating climate change, often through new climate laws or amendments to existing ones.

However, given a jumble of sectoral laws scattered across various fields, all continually evolving to combat climate change, there are concerns about maintaining consistency. One possible solution lies in an umbrella law delegating power to a responsible agency for reviewing and assessing consistency. For example, the EU Climate Law mandates the EU Commission to assess any EU measures or legislative proposals in energy, industry, transport, agriculture, forestry, and buildings sectors to create "synergies by bringing together different stakeholders in a particular policy area."[90] Moreover, climate change litigation can be used as a lever to influence the outcomes and consistency of climate lawmaking.[91]

The U.S. approach to climate lawmaking remains distinctive among major GHG emitters. At the federal level, the U.S. has largely avoided transformative institutional change, meaning that the climate crisis is being addressed within the confines of existing political and legal institutions. Consequently, "politics mediates climate governance rather than the U.S. climate institutions mediating climate politics."[92] This absence of climate institutional innovation is a function of many distinctive features of the U.S. political system, including the country's separation of powers, pluralist policymaking institutions, weak party discipline, and active judicial branch.[93] In areas where the national congress has not taken concerted action, states have stepped in, setting ambitious targets, developing clear roadmaps, and establishing enforcement mechanisms and action programs conditioned on local communities.

From comparing climate legislation around the world, it is observed that an umbrella climate law should facilitate institutionalized climate goal-setting and enforcement mechanisms. The goal here is to set up procedural institutions, rather than adding new content to existing climate laws. Other key components of effective climate governance include a scientific advisory body, institutionalized review and monitoring procedures, and clearly delegated authority to a responsible agency for shaping

90. Tom Christensen & Per Lægreid, *The Whole-of-Government Approach to Public Sector Reform*, 67 Pub. Admin. Rev. 1059, 1060 (2007).

91. Grantham Research Institute on Climate Change and the Environment, Climate Change Law in Europe: What Do New EU Climate Laws Mean For the Courts?, (Mar. 2023), https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2023/03/Climate-change-law-in-Europe-what-do-new-EU-climate-laws-mean-for-the-courts.pdf [https://perma.cc/FQG2-EUQL].

92. Matto Mildenberger, *The Development of Climate Institutions in the United States*, 30 Env't Pols. 571, 588 (2021).

93. *Id.* at 72.

subsequent climate actions. Moreover, existing sectoral laws should be thoroughly examined to adapt to evolving circumstances. As sectoral laws grow, consistency and feasibility should be prioritized through a dedicated provision under the umbrella law or reinforced by the courts. Furthermore, subnational input provides unique value in efforts to combat climate change. Local and provincial governments can serve as the test ground[94] to inspire climate lawmaking or tap into distinct climate actions in responding to local communities.

VII. Conclusion

China's current approach to climate governance, characterized by planning rather than a standalone climate law, limits the effectiveness of its decarbonization efforts. A dedicated climate law would address this gap, providing a legal foundation for comprehensive climate action. Furthermore, China's fragmented and hierarchical institutions pose enforcement challenges. These issues necessitate a binding and accountable framework that engages different stakeholders in a structured process and promotes a constructive transition to a low-carbon economy.

All discussions prompt questions about China's climate legislation model. Although lawmaking relies on pre-existing institutions, insights from comparing foreign models can inform the development of China's own climate laws. Adopting an umbrella climate law is increasingly seen as crucial for guiding overall climate actions. However, this law alone is not a silver bullet. Instead, it should complement existing climate laws on a procedural basis, aligning incentives with desired actions so goals are fulfilled. Specifically, an umbrella law should serve two primary functions: (a) making long-term climate goals legally binding; (b) providing a workable mechanism to realize those goals, which often involves building an advisory committee on climate change and implementing mechanisms for monitoring and review.

Under the umbrella law, sectoral laws must be revisited and revised to ensure alignment. The task is to make climate laws a cohesive entity by strongly linking the umbrella law to sectoral laws in each sphere. Two approaches to such integration are through the umbrella law's own dedicated provisions or through any climate change litigation that stems from it. Furthermore, subnational input should be recognized for revealing promising approaches to innovative climate lawmaking through local pilots and other experiments.

However, foreseeable challenges exist for this climate lawmaking paradigm in China. First, although an umbrella climate law may facilitate the filing of climate-related lawsuits, weak enforcement of sectoral climate laws, administrative law, or constitutional law can still limit the courts' role in actively adjudicating climate disputes. Moreover, just as efficiency (i.e., the effective outcome of a particular climate policy) is

94. New State Ice Co. v. Liebmann, 285 U.S. 262 (1932).

surely an essential metric for climate actions, equity (i.e., climate justice) should become a focus, as it is less recognized in China's climate laws and policies. Furthermore, as climate change is a cross-cutting issue that penetrates all aspects of society, it is challenging for an umbrella law, even in combination with other sectoral laws, to sufficiently incentivize non-state participation in this process. Instead, a clear role should be asserted for non-governmental organizations along with a lower threshold for private participation, potentially leading to amendments to other general procedural laws, such as China's Civil Procedural Law, to justify future climate actions.