Global Perspectives on Corporate Climate Legal Tactics:
China National Report

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Executive Summary

This report aims to examine climate change litigation in China based on three dimensions: cause of action, procedures and remedies. Climate change litigation in China is in its infancy, but is evolving rapidly in number, coverage and importance. This litigation is largely government-oriented, with corporations and NGOs as important participants. Public interest litigation constitutes the major part of climate change litigation, with specific regulations on standing of litigants. New developments in climate change legislation potentially provide a broad legal basis for future climate change lawsuits.

Introduction

Climate change is a big threat to the Anthropocene. In the race to combat climate change, law and legal tools have thrived and are still developing. Climate change litigation, as a legal tool, developed fast in both theory and practice in recent years in different regions globally, which is the context of the “Global Perspectives on Corporate Climate Legal Tactics” project. This project is led by the British Institute of International and Comparative Law (BIICL)’s climate change research team, with support from a Core Group comprised of globally renowned experts and a wider International Expert Group. National reports from 17 jurisdiction systems worldwide are preliminary outcomes of the project. This report is one of the national reports prepared by the National Rapporteur from China.

Causes of Action, Procedures and Remedies are three major factors to analyze climate change litigation, which constitutes the structure of this report. They link and interact with each other. Causes of Action impact the procedure to be applied in a lawsuit, particularly in regard to potential litigants and trial rules. Procedures, such as proof burden and judicial appraisal essentially impact the types and the number of remedies.

Causes of Action in climate change litigation are various. Some of the causes of action are typical civil in nature, for instance contractual disputes based on contractual obligation. Often, the contents of the contract refer to GHG emission reduction, energy conservation and renewable replacement or carbon credit trade. Such causes of action are classified as private interest litigation. Besides, there are public interest litigation that could only be filed by eligible organizations or Procuratorate (state organs of legal supervision) for the purpose of protecting “public interest” instead of personal, individual rights. Public interest litigation, as distinct from private litigation, is regularly introduced as a feature of Chinese climate litigation. Since neither constitutional nor environmental laws have established the “environmental rights” of individuals, public interest litigation becomes an approach to address climate change in the context of “social public interest”, which is a significant feature of climate change litigation in China.
As a tool for addressing environmental problems, public interest litigation has expanded to other areas and is recognized by civil and administrative procedure law, and it is evolving rapidly. Environmental public interest litigation could be administrative or civil: protecting “social public interest” relates to environmental pollution or ecological damage. Besides torts and contractual obligation, nearly all other climate change litigation is public interest litigation.

Besides those classifications according to content, the division between public interest or private interest litigation are also important when it comes to procedures. Standings of litigant are different according to private or public interest. In administrative public interest litigation, the plaintiff is limited to Procuratorate, while in civil public interest litigation, both NGOs and Procuratorate are eligible to file an action. Public interest litigation also enjoys a reverse in proof of burden. As for remedies, private and public interest litigation are largely similar.

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1 Public interest litigation is first recognized in 2012 amendment of Civil Procedure Law, and later 2014 Environmental Law of China, in which environmental public interest litigation is established. At that time NGO is the major role to file a civil public interest litigation, and the scope is limited to environmental pollution and protection of consumer rights. In the amendment of Civil Procedure Law and Administrative Procedure Law (2017) in the later years, the People’s Procuratorate is explicitly conferred with the power to file both civil and administrative public interest litigation, and the scope enlarged from environmental protection to different areas related to public interest.
1. Causes of Action


Currently, there is no comprehensive climate change legislation at the national level in China. The “Climate Change Response Law” is currently in the draft opinion stage. The “Climate Change Response Law” is one of the research projects in the State Council’s 2016 legislative work plan. In 2021, the “Guiding Opinions on Coordinating and Strengthening Work Related to Climate Change Response and Ecological Environment Protection” identified climate change response as a key area for the rule of law in ecological environment protection, requesting for actively promoting synergy between climate change response, environmental governance, and ecological restoration. In 2022, the Minister of Ecology and Environment, Huang Runqiu, stated at the Global Energy Transformation Forum that efforts are being made to actively promote legislation on climate change. Special legislation on carbon peaking and carbon neutrality has also received attention. In 2022, the “Working Guidance for Carbon Dioxide Peaking and Carbon Neutrality in Full and Faithful Implementation of the New Development Philosophy” called for a comprehensive review of the current laws and regulations to remove any content that is inconsistent with carbon peaking and carbon neutrality and to strengthen the connection and coordination among laws and regulations. It also called for the development of specific laws on carbon neutrality. The lack of specific laws on climate change at a national level brings obstacles to the choice of cause of action in climate change litigation. Policy and administrative power play an important role in climate governance. Policy, regulation and judicial interpretation are ahead of laws regarding key issues like compensation and evidence. Rather than the rule of law, China’s climate governance is very much a regime determined by such policy instruments. Such advocacy and emphasis on policy indicate that climate change-related laws are still in need of development and will continue to be improved in the future. Some related provisions are scattered in environmental law, energy law and laws on ecological protection. Regional practices also play a pilot role in China’s climate change legislation. However, there are insufficient cases based on those local legislations.

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i. Environmental Law and Energy Law

In the current legal framework, some provisions of Environmental Protection Law are to climate change, such as Article 2 (environmental concepts), Article 5 (legal principles), Article 19 (environmental impact assessment), Article 39 (environmental risk monitoring and assessment), Article 40 (enterprise energy obligations), Chapter 5 on information disclosure and public participation, and Chapter 6 on legal liability. In the future Environmental Code, Title VI “Green and Low-Carbon Development” may greatly promote the development of climate change legislation. Furthermore, meteorological departments can provide technical and data support for climate change legislation and promote the revision of the Meteorological Law and related administrative regulations and departmental rules. For example, the legislative purpose of “reasonably developing, utilizing and protecting climate resources” in Article 1 of the current Meteorological Law is not suitable for addressing climate change. Under a broad implementation approach, a comprehensive environmental legal framework is the legal source of broad-term climate change litigation. Some areas are worthy of attention, such as pollution prevention and control (i.e., coordinated effects of air pollutants and greenhouse gases, waste reduction and carbon reduction), natural resource management (i.e., energy and water resources, land resources, forest resources, and biological resources), and ecological protection (i.e., biosafety, wetlands, peat, and natural cultural heritage).

Although environmental law and energy law are most directly related to climate change, there are few claims brought under environmental law and energy law. One of the reasons is that those provisions related to climate change are mostly “soft” provisions, without corresponding legal responsibility for breaching such provision.

The prospect of air pollution public interest litigation has been explored and researched: opinions contend that air public interest litigation could offer either a substitute for, or even a gateway to an expanded range of climate change litigation in China. There are indeed cases that focus on air pollutants other than CO₂ that relate to climate change, such as SO₂ and NOₓ. However, since CO₂ is not in the scope of pollutants to be regulated in the Air Pollution Prevention and Control Law of China, there are still obstacles to expanding air pollution litigation into climate change litigation.

The first claims that have been directly brought under environmental law and energy law are The Friends of Nature Institute v. Gansu State Grid, in which The Friends of Nature Institute v. Gansu State Grid, in which

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Nature Institute, an environmental NGO, filed a lawsuit according to Article 40 of Environmental Law and Article 2, Article 14 of Renewable Energy Law, while Gansu State Grid argued that those articles could not constitute the legal basis to bring the suit. In that case, article 40 of Environmental Law is a “soft” provision, with vague words encouraging green production and recycling of resources, while Article 2 and 14 of Renewable Energy Law does not prescribe responsibility for breaching it. Thus, the applicability of those provisions in promoting low carbon are controversial.

ii. Regional and local legislation on climate change

Local legislation plays a significant role in promoting climate change litigation. Various regions have issued their regulations on climate change, such as Tianjin, Qinghai Province, Shanxi Province and Shenzhen Special Economic Zone. Most of the provisions are “soft” provisions, which only encourage a low-carbon way of life, green development, green finance or citing the goal of carbon peaking and carbon neutral, without mandatory obligations. However, local legislation still has authority in judicial practice. According to Article 2, Article 3, and Article 5 of the “Provisions of the Supreme People’s Court on Citation of Such Normative Legal Documents as Laws and Regulations in the Judgments”, local regulations can be directly cited as normative legal documents in court rulings. In the administrative punishment case of Shenzhen Xiangfeng, the People’s Court of Futian District of Shenzhen Municipality, Guangdong Province repeatedly cited the Regulations on the Management of Carbon Emissions in the Shenzhen Special Economic Zone, the Interim Measures for the Management of Shenzhen Carbon Emissions Trading and other documents, confirming that the


7 e. Art 10, art 24-26, art 57-58 of Regulations on the Promotion of Carbon Peaking and Carbon Neutrality of Tianjin. Even if there are norms like “Shall” to impose obligation, in some cases words describe the obligation are vague, which brings difficulty to compliance. e. Art 21-23 of Regulations on the Promotion of Carbon Peaking and Carbon Neutrality of Tianjin stated that governments “shall take effective measures” on prioritise of energy structure, promote clean, effective use of coal, promote clean energy, etc.

8 December 21, 2016, 深圳翔峰容器有限公司与深圳市发展和改革委员会其他二审行政判决书（2016）粤 03 行终 450 号 [Shenzhen Xiangfeng Container Company v. Shenzhen Municipal Development and Reform Commission], [2016], Decision No.450 Shenzhen Intermediate People’s Court, Guangdong.
calculation formula for carbon emission quota, vested by the government regulation according to the Special Economic Zone regulations and did not violate the superior law. While in the contract dispute of Microcarbon, the Huadu District People’s Court of Guangzhou, Guangdong Province analyzed the provisions of the Trading Rules of Guangzhou Emissions Exchange, and upheld that it is the obligation of both trading parties to the ensure carbon emissions quota is met and the fund is sufficiently financed, rather than it being the sole responsibility of Guangzhou Emissions Exchange, a trading center as a platform. Another issue of the dispute was whether the Guangzhou Emissions Exchange was liable to compensate Microcarbon for losses when Tongming Company did not pay the carbon emission quota transfer fee to Microcarbon Company.

As there is a lack of unified legislation at the national level, the local laws and regulations, such as the Trading Rules of Guangzhou Emissions Exchange, become important. The Huadu District People’s Court found that in the absence of clear provisions in the legislation, it is not sufficiently reasonable to rule that the trading institutions bear such guarantee responsibilities. As the first emission trading settlement case in China, this case is of great significance for promoting carbon peaking and carbon neutrality, however it also revealed gap in legal mechanisms.

In climate change litigation, novel issues arise in the areas of carbon trading and the nature of carbon emission quotas. These areas often lack unified legislation at the national level, reflecting the innovative exploration inherent in climate litigation. In the absence of unified legislation at national level, local legislation could be at the forefront, in exploring important elements in climate change litigation, such as carbon trading and carbon sink compensation.

Within climate change litigation, lawsuits related to carbon emissions trading occupy an important position. Local legislation and regulations play an important role in promoting the improvement of carbon emissions trading rules and carbon sink systems. The description of “local” carbon emissions trading rules and “local” carbon sink compensation mechanisms have appeared in numerous cases, where court rulings have emphasized the lack of unified mandatory standards. Four cases have adopted local laws, regulations, or technical standards. It, to some extent, demonstrates the technical nature of climate change litigation. Currently, the development of climate change litigation is mainly at the local level. It is essential to establish a more unified regulatory standard. To be clearer, improving calculation methods for carbon emissions

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10 ibid.

11 ibid.
quotas and ecological values assessment. Some practices, such as freezing the execution of carbon emissions quotas, purchasing carbon offsets for ecological restoration, and compensating for carbon offset losses in monetary terms, highlight the property rights of carbon emissions quotas and carbon offsets. These effectively integrate carbon neutrality goals into civil and commercial activities, achieve successful intersection between environmental laws and civil laws.

iii. International Environmental Agreements

International environmental agreements could not solely become causes of action. However, to perform the obligation under international agreements, laws and regulations are issued or amended to keep in accordance with ratified international agreements. For example, the Regulations on Administration of Ozone-Depleting Substances explicitly stipulated that the regulations are formulated for the purpose of “fulfilling the obligation specified in the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer”.\textsuperscript{12}

In judicial practice, an emerging progress in international agreements are cited in courts’ reasoning part. In China Biodiversity Conservation and Green Development Foundation v. Yalong River Basin Hydropower Development Co., Ltd., the court cited the Convention of Biological Diversity, EIA requirement to fulfil the obligation and precautionary principle to demonstrate the potential risks to public interest.\textsuperscript{13}

As for climate change, the Paris Agreement has not been cited in litigation. The most relevant practices are in control of ODS substances. In addition to conventional CO\textsubscript{2}, closely associated with traditional fossil fuels, ozone depleting substances fluoride (HFCS), methane (CH\textsubscript{4}), and ozone (O\textsubscript{3}) (short-lived greenhouse gases or non-CO\textsubscript{2} greenhouse gases) have also come into the concern of climate change litigation. Synergy between UNFCCC and international agreements regulating ozone-depleting substances (ODS) provides connection between control of ODS and climate change litigation. When it comes to litigation related to ozone layer depletion, there is a typical case issued by the Supreme People’s Court – anti-air pollution civil public interest lawsuit filed by the prosecutor of Deqing County against a certain insulation material company

\textsuperscript{12} Art 1, Regulations on Administration of Ozone-Depleting Substances.

\textsuperscript{13} December 17, 2020. China Biodiversity Conservation and Green Development Foundation v. Yalong River Basin Hydropower Development Co., Ltd. [2020] Decision No.45 Ganzi Tibetan Autonomous Prefecture Intermediate People’s Court, Sichuan Province. This case is also known for “Acer Pentaphyllum” case, in which Acer Pentaphyllum, an endangered plant on IUCN red list, is threatened by a hydropower project. The case is known as the first case of preventive public interest litigation in China.
in Deqing. The criminal prosecution part of this case is the first environmental pollution criminal case in China in which the party was sentenced to actual punishment for the illegal use of controlled ozone-depleting substances (ODS), while the civil public interest litigation part is the first civil public interest litigation case of air pollution liability for ozone-depleting substances (ODS). In this case, Deqing Minghe Insulation Material Company (hereinafter referred to as “Deqing Minghe”) was sued for purchasing and using trichlorofluoromethane (commonly known as freon), a ODS substance banned by The Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer. The Deqing County People’s Procuratorate filed a civil public interest lawsuit against Deqing Minghe, requesting the company to compensate for ecological environmental damage and bear appraisal and assessment costs. Such case shows China’s fulfillment of treaty obligations and promotes the protection of the ozone layer through legal practice.

B. Human Rights Law

Article 33 of China’s Constitution states that “The state shall respect and protect human rights”. However, “environmental right” is not prescribed in the constitution as a basic right of Chinese citizens, especially substantive environmental rights. Procedural environmental rights have been stipulated in Chapter Five of the Environmental Protection Law. There are the rights to be known (i.e. the government’s and company’s climate information disclosure), the right to participate (i.e. the public participation of climate impacts assessment), and the right to justice (i.e. public interest litigation). By contrast, substantive environmental rights are seldom stipulated in China in a uniform and explicate manner. There are few directly relevant provisions in Constitutional Law and Environmental Protection Law. Currently, the concept of “the right to climate stability” has emerged in academia. The concept is regarded as a superior concept for climate change litigation claims that encompass both substantive and procedural rights and span both international and domestic law.

Although seldom stipulated in legal provisions, environmental rights are not ignored in the Chinese political context. In the White Paper Progress in Human Rights over the 40 Years of Reform and Opening Up in China issued in 2018, “environmental rights” constituted an important part of human rights. In section II of the White Paper, “Stronger

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15 ibid.
The protection of environmental rights is addressed. In global governance, the White Paper stated that “China was the first country to release a national plan on implementing the 2030 Agenda for Sustainable Development and to deposit its instrument of ratification for the Paris Agreement, becoming an important participant, contributor and leader in promoting global ecological progress”, indicating climate change mitigation and adaptation measures are a part of environmental rights. As for legislation progress, China has “enacted the Environmental Protection Law, Atmospheric Pollution Prevention and Control Law, Soil Pollution Prevention and Control Law, Water Pollution Prevention and Control Law, Marine Environment Protection Law, Water and Soil Conservation Law, and other environmental laws and regulations, and established procedures and rules for environment-related tort litigation and public interest litigation to provide a solid basis for guaranteeing people's environmental rights”. In summary, environmental rights are recognized in China’s policy, however not explicitly prescribed in legal texts.

With the promulgation of China’s new Civil Code, another approach related to personality rights and environment emerges. The Civil Code of China protects “personality rights” in its Part 4, which defines personality rights as “the right to life, physical rights, health rights, name rights, name rights, portrait rights, reputation rights, honor rights, privacy rights, and other rights to which a civil subject is entitled”. Environmental right is not included in that scope. The Civil Code also prescribes that “a natural person shall enjoy other personality rights and interests generated from personal freedom and personal dignity”. The expression might provide a way to recognize the personality characteristic of environmental rights and build a connection between right to life, right to health and environmental right. There are also scholarly opinions that contend that “favorable environmental right” should be defined as a new personality right, concuring “green principle” addressed in the basic principles of Civil Code.

The “green principle”, which is one of the fundamental principles of the Civil Code, has been applied in judgments. For example, in the entrustment contract dispute between Shanghai Qinju v. Beijing Yuner, the Dongcheng District People's Court of Beijing held that the contracts for bitcoin “mining machines” and “mining” were invalid for violation

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17 White Paper: Progress in Human Rights over the 40 Years of Reform and Opening Up in China (2018)
18 ibid.
19 Art 990, Civil Code of the People’s Republic of China.
of public order and good customs.\textsuperscript{21} The huge power consumption of bitcoin “mining” was not conducive to emission reduction and the achievement of carbon peak and carbon neutrality goals, which is not in accordance with Article 9 “Green Principles” of the Civil Code of the People's Republic of China, nor did it meet the relevant policies and regulatory requirements of industrial structure adjustment, thus violated public order and good customs.\textsuperscript{22} Although not directly related to “environmental right”, a requirement of civil activities to “help save resources and protect the ecological environment”\textsuperscript{23} shows that ecological environment, including climate are afforded more importance.

C. Tort Law

The protection of subjective rights is commonly encountered in climate civil (tort) litigation. These types of cases are more common in international and regional contexts, such as in the Americas, Africa, and Europe, but are relatively rare in China’s legal practice. Traditionally, tort law in China contains few provisions related to environment protection. With the trend of “green civil code” and increasing environmental concern, more intersection between tort law and environmental law emerges. Given that codification of Civil Code has just been accomplished in 2021, a longer period of time is needed to evaluate the legal practices based on those new provisions.

Liability for Environmental Pollution and Ecological Damage is specifically prescribed in Chapter 7, Part 7 of Civil Code. Article 1229 states that “in the event of damages of others caused by environmental pollution and ecological destruction, the infringor shall bear tort liability”.\textsuperscript{24} In environmental law, damages brought by environmental pollution and ecological destruction is also regarded as tort liability. For example, article 125 of Law of the People’s Republic of China on the Prevention and Control of Atmospheric Pollution defined the liability for damages caused by emission of air pollutant as tort liability. Similarly, article 64 of Environmental Law also treats environmental pollution and ecological damage as tort liability.

Non-CO\textsubscript{2} GHGs as air pollutants are under the application scope of such tort liability. In the above-mentioned Deqing Minghe case, emission of trichlorofluoromethane, an ODS substance is considered a breach of tort law. In a Civil public interest litigation case for compensation for ecological and environmental damage, supported by People's Procuratorate of Shuyang County, Jiangsu Province, the illegal emission of

\textsuperscript{21} Acronym for Shanghai Qinju Industrial LLC v. Beijing Yuner Computing Technology Co., Ltd
\textsuperscript{22} ibid.
\textsuperscript{23} Art 9, Civil Code of the People’s Republic of China.
\textsuperscript{24} Art 1229, Civil Code of the People’s Republic of China.
nitrous oxide, a type of GHG, was investigated. However, the emission of CO$_2$ itself, has not been recognized as a tort liability. CO$_2$ is not a “pollutant” regulated in Chinese environmental law, thus the emission of CO$_2$ could not be categorized as infringement of any type of right. To contain CO$_2$ in a tort case, a Chinese version of Massachusetts v. EPA or an extension of the scope of air pollutants would be expected. However, such a change is unlikely to happen in the near future, since the emission of CO$_2$ is so prevalent in various industry sectors and there is a lack of alternatives. Encouraging low-carbon techniques and products, is more practical compared to punishment.

D. Company and Financial Laws

Currently, Company Law in China lacks elements of environmental protection and of climate change mitigation. Green finance are green bonds, but these have not been introduced into company and financial laws in China, only local legislation or the environmental law sector have provisions related to green finance. For example, the Yangtze River Protection Law of China encourages “financial institutions to develop green credit, green bonds, green insurance and other financial products to provide financial support for ecological and environmental protection and green development in the Yangtze River basin”.

According to article 5 of China’s Company Law, enterprises are obliged to bear social responsibilities and comply with the laws and administrative regulations, social morality, and business morality. Thus, administrative regulations related to enterprises also impose duties on them. Regarding climate change, a major obligation is information disclosure. On December 31, 2021, the Ministry of Ecology and Environment issued the “Format Guidelines for the Lawful Disclosure of Companies Environmental Information”, stating that “key greenhouse gas-emitting units included in the carbon emission trading market quota management shall disclose carbon emission-related information, including: (1) the actual carbon emissions for the year and the previous year; (2) quota clearance status; (3) information on emission facilities and accounting methods according to the accounting and reporting standards or technical specifications for greenhouse gas emissions,” which provides a detailed account of the disclosure of carbon emission information. The National Measures for the Administration of Carbon Emission Trading (for Trial Implementation) also requires...

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27 Art 19, Format Guidelines for the Lawful Disclosure of Companies Environmental Information.
disclosure of information.\textsuperscript{28} However, there is a lack of lawsuits based on violation of information disclosure.

Regarding responsibility for enterprises, a possible future cause of action is fraud of carbon emission data. In 2022, the Ministry of Ecology and Environment disclosed several cases of carbon emission data fraud.\textsuperscript{29} One such example was China’s Carbon Energy Investment Technology (Beijing) Co., Ltd (hereinafter referred to as “China Carbon Energy Investment”), a company entrusted by the executive branch as a third-party institution for investigating the carbon emission data of enterprises. China Carbon Energy Investment falsified the emission data report of different enterprises on dates and parameters. Based on violation of \textit{The National Measures for the Administration of Carbon Emission Trading (for Trial Implementation)}, the All-China Environment Federation, an environmental NGO, filed a suit against China Carbon Energy Investment, with the aim of enhancing mechanisms for carbon trading in terms of public interest litigation.\textsuperscript{30} The case was successfully accepted by Beijing Municipal No. 4 Intermediate People’s Court in June 2022. Although still in process, this case revealed the potential of suing enterprises and third-party assessment agencies of data fraud, which also could be drawn upon to combat “greenwashing” cases.

\section*{E. Consumer Protection Laws}

Article 6 of the Environmental Law requires citizens to keep a low-carbon, economical lifestyle, which explicitly addresses green consumption. However, consumer protection law lacks connection with climate change. Although Article 58 of Civil Procedure Law listed “infringes upon the lawful rights and interests of vast consumers or otherwise damages” as a legal condition to file public interest litigation, it is a separate cause of action not related to environmental problems. In sum, consumer protection law is not a suitable cause of action in China.

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\textsuperscript{28} Art 10, art 25, \textit{The National Measures for the Administration of Carbon Emission Trading (for Trial Implementation)}

\textsuperscript{29} Ministry of Ecology and Environment. ‘Typical problem cases of fraud of carbon emission reporting data disclosed by Ministry of Ecology and Environment’ (1\textsuperscript{st} series of typical environmental problems in 2022) 生态环境部公开中碳能投等机构碳排放报告数据弄虚作假典型问题案例（2022年第一批突出环境问题）, 中华人民共和国生态环境部 (mee.gov.cn) (Mar 14 2022).

\textsuperscript{30} All-China Environment Federation. ‘Carbon Emission Data Fraud Public Interest Litigation was filed in Beijing’ 我会“碳排放数据造假公益诉讼案”在北京获立案, 中华环保联合会 (acef.com.cn) (Jun 22 2022).
\end{flushleft}
F. Fraud Laws

As with consumer protection law, fraud laws in China have little connection with environmental issues, including climate change.

G. Contractual Obligations

With the progress of “dual carbon” targets and compliance measures of the Paris Agreement, the increase in carbon trading has led to contract disputes related to climate change. Contract disputes now consist a major part of China’s climate change litigation. Among the eleven typical cases presented by the Supreme People’s Court, seven of them are related to carbon and carbon sinks, in which two are closely related to contract services, and three are related to carbon emission quotas (specifically in the allocation of quotas during the early stages of carbon trading, the middle stages of trading, and the later stages of enforcement).

Disputes on the performance of CCER contracts, carbon trading contracts and the validity of such contracts thrive.\textsuperscript{31} Such cases follow the rationale and logic of civil litigation and the rules are governed by civil and commercial law, however their subject matters are carbon emission credits. CCER could also be seized and frozen like other property.\textsuperscript{32}

As for civil lawsuits, the contract dispute focuses on carbon emission quota trade and CCER contracts constitute the majority of cases. Similar to other civil litigation, the issues central to these cases are validity, performance and cancellation of the contract. In the case of Microcarbon (Guangzhou) Low Carbon Technology LLC v. Guangzhou Carbon Emissions Trading Center LLC (hereinafter referred to as “Microcarbon”) the potential risks in carbon trading caused by disputes in emission quota trade is revealed.\textsuperscript{33} In Beijing Tianqing Power International Clean Energy Consulting LLC v. Shunfeng Optoelectronics Investment (China) Co., Ltd, (hereinafter referred to as “Tianqing Power v. Shunfeng Investment”), the adherence to an agreement on the development of voluntary greenhouse gas emission reduction projects became the issue of the dispute.

\textsuperscript{31} June 10, 2021 [Qinling v. Zhongmin Evergreen Low Carbon Technology Co., Ltd] [2021] Decision No.768, People’s Court of Sichuan Pilot Free Trade Zone. In that case the plaintiff sued the defendant for performing the CCER contract.

\textsuperscript{32} November 27, 2019 [2019] Decision No.239, Suixian People’s Court of Hubei. In this case benefit of CCER was frozen with bank account and deposit of defendant.

\textsuperscript{33} January 5, 2021, [Microcarbon (Guangzhou) Low Carbon Technology LLC v. Guangzhou Carbon Emissions Trading Center LLC] [2021] Decision No.2940, Huadu District People’s Court of Guangzhou, Guangdong.
Although the whole case is essentially a contract dispute, it reflects the value of China Certified Emission Reductions (CCER) as a technical service and the economical role of carbon trading. In the carbon emission quotas enforcement case of the Shunchang Branch of the Agricultural Bank of China v. Fujian Rongchang Chemical LLC, the People's Court of Shunchang County, Fujian Province froze the unused carbon emission quota of 10,000 tons of carbon dioxide equivalent and notified the company to put the carbon emission quota on the network to the Fujian Strait Equity Exchange Center for trading. The company's 5,054 tons of carbon dioxide equivalent quota was eventually successfully traded. As the first carbon emission allowance enforcement case in China, the property trait of carbon emissions is reflected in this case.

A criticism on those litigations is that the enterprises involved in litigation are motivated by protecting contractual rights or fulfilling contractual obligations rather than achieving specific climate change goals. It is doubted that concern for climate change features even at the periphery of the argument. However, such cases provide linkages between environmental law and civil law. For example, in the carbon emission quota enforcement case of the Shunchang Branch, which is the first carbon emission quota enforcement case in China. The court found that according to The National Measures for the Administration of Carbon Emission Trading (for Trial Implementation), carbon emission allowances, as a trading product, is a new type of property right. Such right is similar to intangible assets of enterprises, such as intellectual property rights, and should be included in the scope of property that can be enforced by the court. Thus, the People’s court may take enforcement measures against the unused carbon emission quotas of enterprises in accordance with the relevant provisions of the Civil Procedure Law of the People's Republic of China. The recognition of carbon emissions trading quotas as “intangible assets” confirms the property trait of carbon emissions.

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36 ibid.
38 ibid.
allowances, which is an innovation of the enforcement method and is also important to the promotion of the trading of carbon emission allowances.

**H. Planning and Permitting Laws**

In China, “permitting laws” are closely related to Administrative Licensing Law, which regulates permit to construct a project or emission of specific pollutants. While planning is about function of administrative organs, in which illegal act or omission would fall into the scope of administrative law. Some regulations or policies concerning industry structure is also similar to the concept of “planning laws”.

**i. Administrative Law**

In terms of Administrative Law, Administrative Licensing Law and Administrative Penalty Law are related to administrative public interest litigation. Central environmental inspections can serve as an important approach of promoting relevant regulatory authorities to expedite the implementation of green, low-carbon development policies. Some environmental crimes related to air pollution and illegal logging involve the Criminal Law. Therefore, the legal regulations related to climate change constitute a multiple and complex system.

Inaction of governments could become a cause of action. For example, in the administrative omission case of the Fengxiang Branch of the Baoji Environmental Protection Bureau, Shaanxi Province, the air pollutant emission of the coal-fired boiler of Shaanxi Changqing Energy Chemical LLC exceeded the local air pollutant control standard during the trial production of its methanol project. Such a condition was not improved after measures such as ordering production restrictions and imposing sewage charges were taken by the Fengxiang Sub-Bureau. The emission reduction equipment of Changqing Energy Chemical was not officially put into use: the emission of particulate matter still exceeded the limit. The Fengxiang County People's Procuratorate filed a public interest lawsuit against the Fengxiang Sub-Bureau. It requested confirmation that the administrative omission of the Fengxiang Sub-Bureau was illegal and that the Fengxiang Sub-Bureau should fully perform its duties to urge Changqing Energy Chemical to take effective measures to ensure that the emissions met the standards, which was supported by the court.

41 ibid.
42 ibid.
43 ibid.
Resources and Planning Bureau of Hubei Province was sued by local Procuratorate for failure to perform supervision and management duties in forest protection, which hindered the eco function of the forest in combating climate change and lost the case. In that case, the administrative branch was sued for failure to perform the duty under Regulations for the Implementation of the Forest Law of the People's Republic of China. Currently, there are no cases on failure to perform the duty related to climate change, but the future for such administrative public interest litigation is promising. Although a major barrier for similar litigation on climate change area is the lack of laws specifically to regulate climate change, some local legislation has already elaborated on the duty to combat climate change and promote carbon peaking and carbon neutral goals for local government. National level climate change legislation is also in discussion. With enhancements in legislation, the theoretical support for filing a suit against government for inaction on climate change issue would be possible.

ii. Environmental Impact Assessment Law and the Environmental Permit Law

In terms of procedural laws, there are several other laws and regulations related to climate change, such as the Environmental Impact Assessment Law and the Environmental Permit Law. Regarding information disclosure, some regulations require government and companies to disclose environmental information, some of which concerns carbon emissions. For example, on February 8, 2022, the “Management Measures for the Lawful Disclosure of Companies Environmental Information” stipulated that companies are responsible for the lawful disclosure of environmental information. Eight categories of information are highlighted, including carbon emissions.

iii. Regulations and policies related to adjustment of industry structure

Concerning traditional energy efficiency, some cases involving industrial restructuring may be the basis for litigation. In the administrative omission case of Hancheng Yulong Coal Industry LLC v. Hancheng Economic Development Bureau, Yulong Coal Industry LLC claimed that the company shut down the 99-III coke oven in response to the national energy conservation and emission reduction policy, requesting the court to order the Economic Development Bureau to perform relevant procedures for the company to receive incentive funds for eliminating backward production capacity. The

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45 Art 4, Management Measures for the Lawful Disclosure of Companies Environmental Information.

46 韩城市禹龙煤业有限责任公司诉韩城市经济发展局不履行产业结构调整政策纠纷案 [Hancheng Yulong Coal Industry LLC v. Hancheng Economic Development Bureau] [2009], Decision No.9 Hancheng People’s Court of Shanxi Province.
claim of the company was supported by the court. In the administrative compulsion and compensation case of *Liyutang Shixi Brick Factory, Yongxing County v. Yongxing County People's Government*, after the first and the second instance of the case, the Supreme People's Court held that the closure and combat of clay brick enterprises that were not in alignment with the national industrial policy, was related to safe production, ecological protection and effective utilization of resources, and thus rejected Shixi Brick Factory’s request for retrial. The legality of the closure was affirmed, which is conducive to the promotion of the adjustment of industrial structures.  

The adjustment of industrial structures could be the background of a dispute. In the contract dispute of *Guangxi Xindongyun Mining LLC v. Inner Mongolia Baijian Cement LLC*, the issue of the dispute derives from an agreement related to the transfer of capacity indicators. In judicial practice, the policy guidance towards a low-carbon, green industrial structure could also become one of the rationales for the judgment. For example, in the case of the entrustment contract dispute of *Shanghai Qinju Industrial LLC v. Beijing Yuner Computing Technology LLC*, the Dongcheng District People's Court of Beijing cited Article 19 of *the Temporary Provisions of the State Council on Promoting Industrial Structure Adjustment*, noting that “Investments are prohibited from being contributed to projects under the eliminated category”. The Court also cited the *Notice on Rectifying Virtual Currency “Mining” Activities* issued by the National Development and Reform Commission, People's Bank of China and other eleven departments, in which virtual currency “mining” activities are categorized as eliminated industries. Based on those regulations, the court held that Bitcoin “mining” consumed abundant electrical power, which hinders goals of high-quality development, energy conservation and emission reduction, as well as carbon peak and carbon neutrality. Thus, such activities are not in accordance with public order and good customs, the contracts of bitcoin “mining machines” and “mining” should be invalid.

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47 August 14 2020, 永兴县鲤鱼塘镇石溪砖厂、湖南省永兴县人民政府再审审查与审判监督行政裁定书 (2020)最高法行申 7020 号 [*Liyutang Shixi Brick Factory, Yongxing County v. Yongxing County People's Government*] [2020], Decision No.7020, Supreme People’s Court.


49 August 14, 2020, 上海勤鞠实业有限公司与北京云尔计算科技有限公司委托合同纠纷一审民事判决书 (2021)京0101民初 6309 号 [*Shanghai Qinju Industrial LLC v. Beijing Yuner Computing Technology LLC*], [2020] Decision No.6309 Dongcheng District People’s Court of Beijing

50 ibid.

51 ibid.
I. Other Causes of Action

i. Criminal Law

The 11th amendment of Criminal Law makes GHG emission data fraud a crime, along with fraud of EIA and environmental monitoring. Until 2023, there is still no criminal case based on carbon emission data fraud. As time passes, criminal law would become a new potential cause of action for GHG emission data fraud.

Criminal incidental civil public interest litigations are often filed to protect the eco-function of carbon sink. A typical type of cases is the inappropriate intervention and reduction of natural carbon sinks, mainly in the forestry sector. The highlights of these typical cases are reflected in the determination of the carbon sink function of natural resources, compensation for the carbon sink losses, as well as the responsibility for the restoration of carbon sink functions. Such civil public interest litigation is accompanied with criminal illegal logging cases, in which restoration of carbon sink is regarded as a way to bear responsibility.

The A Luo Mou Jia criminal incidental civil public interest litigation case and Chen Mouhua's illegal logging deforestation case are two typical examples. In the former case, the act of purchasing carbon sinks instead in order to compensate for the loss of ecological service functions during the period from damage to the completion of restoration was considered by the court when imposing penalties. The six defendants in the incidental civil public interest lawsuit were ruled to replant 70 spruce trees in accordance with the ecological environment restoration plan, the survival rate of afforestation in that year should not be less than 90%, and the three-year survival rate should not be less than 85%. In this case, the People's Court innovatively applied the method of deregistering the defendant's purchase of forestry carbon sink in the carbon market as an alternative to compensate for the loss of ecological service functions during the period from the damage to the completion of the restoration, which effectively alleviated the problem of the lack of capacity of carbon sequestration during the infancy of replanted trees.

While in the latter one, Chen Mouhua’s case of illegal logging deforestation, as the first criminal case of forest carbon sink compensation in Fujian Province, is of great significance for quantifying the loss of ecological service functions and improving the forest carbon sink compensation mechanism. The assessment of the value of forest

52 Art 229, Criminal Law of the People's Republic of China.
54 ibid.
carbon sink compensation reflects the recognition of the value of forest ecological services, which is conducive to the improvement of value assessment methods related to climate change loss and damage, as well as of significance to the development of ecological compensation in climate change litigation. Both cases demonstrate the value of forest carbon sinks, using restoration as an approach of compensation.

ii. Judicial Interpretations and guiding opinions of the Supreme People’s Court

The judicial interpretations of the Supreme People’s Court play a critical role as well in climate change litigation. The “Interpretation of the Supreme People’s Court on Several Issues concerning the Application of Law in the Conduct of Environmental Civil Public Interest Litigations” (hereinafter referred to as “the Interpretation”), first promulgated in 2015, stated “Where an authority or relevant organization as prescribed by law files a lawsuit against any conduct that pollutes the environment and damages the ecology, which has damaged the public interest or has the major risk of damaging the public interest, in accordance with the provisions of Article 58 of the Civil Procedure Law, Article 58 of the Environmental Protection Law, and other laws, if the provisions of item (2), (3) or (4) of Article 119 of the Civil Procedure Law are complied with, the people’s court shall accept the lawsuit.”55 Many provisions in the Interpretation provide accurate guidance for environmental public interest litigation. In the areas of biodiversity conservation and carbon sink, the “Interpretation of the Supreme People’s Court on Several Issues Concerning the Specific Application of Law in the Trial of Criminal Cases Involving the Destruction of Wild Animal Resources” and the “Interpretation by the Supreme People’s Court of Several Issues Concerning the Application of Law in the Trial of Civil Cases Involving Disputes over Forest Resources” have refined the trial of relevant cases. These, combined with the potential for the use of Criminal Law (the 11th Amendment) in climate-related biodiversity cases, remain to be fully explored.

Classification of climate change litigation is impacted by guidelines from the Supreme People’s Court. According to the content of the litigation, climate change litigation can be divided into two categories: mitigation litigation and adaptation litigation. In 2020, the Supreme People’s Court issued the “Guidelines for the Categorization and Statistical Standards of Environmental Resource Cases (Trial Implementation)” (hereafter referred to as the “Guidelines”), which divided environmental and resource cases into five major types: environmental pollution prevention and control, ecological protection, resource development and utilization, climate change response, and ecological environment governance and services.56 Climate change response case is established as a specific

55 Art 1, Interpretation of the Supreme People’s Court on Several Issues concerning the Application of Law in the Conduct of Environmental Civil Public Interest Litigations (Jan 6 2015).
56 The Supreme People’s Court. Guidelines for the Categorization and Statistical Standards of Environmental Resource Cases (Trial Implementation)
type of case, highlighting the importance of this type of litigation. Climate change response case is defined as “criminal, civil, administrative, and public interest cases arising from direct or indirect impacts on climate change caused by the emission of greenhouse gases ozone layer depleting substances, and other factors”. Specifically, climate change response cases include both mitigation and adaptation litigations. Climate change mitigation litigation refers to “cases arising from the process of developing renewable energy, improving energy efficiency, controlling the consumption of ozone-depleting substances, promoting sustainable transportation, managing land use change and forestry to reduce or avoid greenhouse gas emissions.” Climate change adaptation litigation refers to “cases arising from the process of promoting rapid and long-term adaptation measures in policies, plans, projects, and actions, enhancing various capacities to better adapt to climate change, and thus reducing the various losses and impacts of climate change on human life, property, and public health.”

Finally, the guiding opinions of the Supreme People’s Court are indispensable in the adjudication of climate change litigation, especially in the field of judicial activism. In June 2016, Vice President Jiang Bixin of the Supreme People’s Court explicitly proposed at the National Environmental Resources Trial Training Class for Judges to “moderately strengthen judicial activism, innovate trial methods and judgment modes”, and to “properly handle cases involving carbon emissions, energy conservation and other issues related to climate change, fully leveraging the important role of the judiciary in mitigating and adapting to climate change, and promoting the construction of a national climate change response system”. In the White Paper on China’s Environmental Resource Trial (2019), the Supreme People’s Court for the first time included “adjudicating cases related to climate change response in accordance with the law” as an independent section, and proposed to “pay attention to the use of various judicial judgment methods, promote the implementation of the two means of mitigating and adapting to climate change, and promote the construction of a national climate change response governance system.” In the White Paper on Environment and Resources Adjudication in China(2020) released in June 2021, the Supreme People’s Court further clarified that climate change-related cases could occur in the fields of

57 ibid. art 5.1.
58 ibid art 5.2.1.
59 ibid.
60 Jiang Bi Xin. ‘Promote the healthy development of environmental resources adjudication’ [江必新：推动环境资源审判工作健康发展 - 中华人民共和国最高人民法院 (court.gov.cn)] (Jun 14 2016).
“criminal, civil, administrative, and public interest” litigation. On October 28, 2021, the Supreme People’s Court issued the “Opinions of the Supreme People’s Court on Strengthening and Developing New Methods for the Trial of Cases involving Environment and Resources in a New Era and Providing Judicial Services and Guarantees for Building a Modernized System for the Harmonious Co-existence of Human and Nature” (No. 28[2021] of the Supreme People’s Court), which stipulates in Article 15 that “contributing to the goals of peak carbon and carbon neutrality. The economic, public and ecological attributes of carbon-related rights such as carbon emission rights, carbon sink and carbon derivatives shall be accurately determined, and relevant civil disputes involving confirmation, transaction, guarantee and enforcement shall be tried according to law. Administrative organs shall be supported and supervised in investigating and dealing with illegal acts such as false reports and concealed reports of greenhouse gas emissions by carbon emission entities and refusal to fulfill the obligation of reporting greenhouse gas emissions. Cases involving carbon-related public welfare litigation and compensation for ecological environment damage filed by organs prescribed by the state or organizations prescribed by law shall be tried according to law in order to contribute to the formation of a clean, low-carbon, safe and efficient energy system that focuses on renewable energy such as wind, solar, hydro, nuclear, gas and biomass. The trial of cases involving energy structure adjustment in key areas such as the Beijing-Tianjin-Hebei region and its surrounding areas, the Fenwei Plain and the Yangtze River Delta shall be intensified, and the coordinated treatment of pollution reduction and carbon reduction shall be strictly implemented. Cases involving the illegal production and use of controlled ozone-depleting substances and environmental pollution shall be tried according to law to help reduce non-CO₂ greenhouse gas emissions and effectively tackle the global crisis of climate change.”

iii. Environmental Standards and Guidelines

In addition to laws and regulations, various environmental standards are also of great importance. For example, with respect to greenhouse gas emissions, in order to implement the “Measures for the Administration of Carbon Emissions Trading (for Trial Implementation)” and standardize the carbon emissions accounting and reporting of key emitting units in the power generation industry, improve the quality of carbon emission data, and improve the long-term mechanism for managing the quality of data

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63 Art 15, Opinions of the Supreme People’s Court on Strengthening and Developing New Methods for the Trial of Cases involving Environment and Resources in a New Era and Providing Judicial Services and Guarantees for Building a Modernized System for the Harmonious Co-existence of Human and Nature.
in the national carbon emissions trading market, the Ministry of Ecology and Environment has formulated the “Methodology and Reporting Guidelines for Enterprise Greenhouse Gas Emissions Accounting for Power Generation Facilities”.64 In terms of carbon sink, the “Technical Guidelines for Ecological Environment Damage Assessment” provide a reference. Besides, local governments have also actively attempted to formulate different standards and related normative documents and apply them in practice, playing a leading role in local legislation in cutting-edge fields.65 In technical processes like calculating ecological environmental damage and assessing carbon sinks, environmental standards are indispensable.

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2. Procedures

A. Standing

   i. Standing in private interest litigation

Standing of litigants varies according to different types of litigation. Private interest litigation is based on a direct relationship of interest (either property or personal), and can be initiated by either companies or individuals. Public interest litigation, with the goal to protect “social, public interest”, could only be filed by organizations.

   a. Company

Companies play a major role in participants of litigations related to climate change. Causes of actions are normally contract disputes, however the content of the contract is related to climate change. In Beijing Mingsheng Sunshine Technology Co., Ltd v. Yoshimunai Haiwei Oil Wind Power Co., Ltd, the dispute is focused on the performance and cancellation of CCER contract. The court made the decision according to civil code, except for CCER is related to climate change mitigation. When companies are involved in climate change litigation as plaintiff, the defendant is also the company in most cases. There are also scenarios whereby companies file administrative litigation to claim their rights against the government, or argue that the penalty received is illegal.

   b. Individuals

Given that “environmental rights” is not explicitly expressed in China’s law and regulations, there are hardly any individuals file a climate change lawsuit.

Standing of litigants in private interest litigation such as tort are governed by Civil Code. Chapter 7 of Part VII of the Civil Code specifically prescribed ecological and environmental torts. Pursuant to Article 1229 of the Civil Code and Article 1 of the Interpretation, the infringer shall have the right to bring a lawsuit for violations of environmental pollution and ecological damage. However, emission of CO₂ does not constitute “environmental pollution”, ecological damage brought by climate change is also hard to confirm the causal relationship. All of these obstacles mean that environmental torts are rarely applied in climate change.

66 See July 4 2022, 北京铭晟阳光科技有限公司、吉木乃县海为支油风电有限公司技术咨询合同纠纷民事一审民事裁定书 (2022) 新 4326 民初 132 号[Beijing Mingsheng Sunshine Technology Co., Ltd v. Jimunai Haiwei Oil Wind Power Co., Ltd], [2022], Decision No.132, People’s Court of Jimunai County, Xinjiang Uygur Autonomous Region.

67 See art 1, Interpretation of the Supreme People’s Court on Several Issues concerning the Application of Law in the Conduct of Environmental Civil Public Interest Litigations; art 1229, Civil Code of the People’s Republic of China.
ii. Standing in public interest litigation

As for public interest litigation, the issue of standing becomes more complicated. “Legally designated institutions and relevant organizations”, which in most cases, means environmental NGOs, and the people's procuratorates in the People's Republic of China constitutes two types of participants that have standing to file public interest litigation.

a. NGOs

Article 58 of civil procedure law and Article 58 of Environmental Protection Law provides the basis for public interest litigation. Article 58 of Civil procedure law authorized “Legally designated institutions and relevant organizations” to initiate actions to the People’s Court. While Article 58 of the Environmental Protection law stipulates that “A social organization that meets the following conditions may bring an action before the People's Court for the conducts that pollutes the environment, damages the ecology, and cause harm to the public: (a) Registration of the civil affairs departments of the People's Government at or above the municipal level established by law; (b) Specializing in environmental protection public welfare activities for more than five consecutive years and no illegal records. The People's Court should accept the case in accordance with the law. A social organization that brings a lawsuit may not obtain financial benefits through litigation.”

According to article 2, article 3 and article 5 of the Interpretation, Social groups, and foundations could be identified as “social organization” prescribed in Article 58 of the Environmental Law. If a social organization's purpose and main business scope specified in its articles of association are to maintain the social public interests and it is engaged in public environmental protection activities, it could be identified as “specifically engages in public environmental protection activities” prescribed in Article 58 of the Environmental Protection Law. The social public interests involved in the lawsuit filed by a social organization shall be related to its purpose and

68 Art 58 of Civil Procedure Law of People’s Republic of China: “Legally designated institutions and relevant organizations may initiate proceedings at the people's court against acts jeopardizing public interest such as causing pollution to the environment or damaging the legitimate rights or interests of consumers at large. In the event that a people’s procuratorate finds any act that does harm to the protection of the ecological environment and resources, any practice in the food and drug safety field that infringes upon the legitimate rights and interests of consumers, or any other behavior that damages the social benefits of the masses, while performing its duties and functions, it may file an action to the people's court, provided that there is no such organ or institution specified in the preceding paragraph or the organ or institution specified in the preceding paragraph decides not to bring a lawsuit. Where the organ or institution specified in the preceding paragraph file a lawsuit, the people's procuratorate may give endorsement to such lawsuit.”

69 Art 58, Environmental Protection Law of the People’s Republic of China.

70 Art 2, art 3, art 5, Interpretation of the Supreme People’s Court on Several Issues concerning the Application of Law in the Conduct of Environmental Civil Public Interest Litigations (The Interpretation).

71 Art 4, Interpretation of the Supreme People’s Court on Several Issues concerning the Application of Law in the Conduct of Environmental Civil Public Interest Litigations (Jan 6 2015).
business scope. To fulfill the condition of “without records of violations of laws” prescribed in Article 58 of the Environmental Protection Law, the social organization should not be subject to any administrative or criminal punishment due to violation of laws and regulations by virtue of its business activities within five years before it files a lawsuit.\textsuperscript{72} It is sometimes criticized that the five-year requirement becomes a constraint for NGOs to participate in public interest litigation. In practice, NGOs are active in environmental public interest litigation, however few are related to climate change.

Although with few cases, claims against companies have been filed by NGOs. A milestone case is \textit{The Friends of Nature Institute v. Gansu State Grid}, which is noted as the “first climate change litigation in China”.\textsuperscript{73} In that case, Friends of the Nature, one of the earliest established environmental NGOs in China with a history of nearly 30 years, sued State Grid Gansu Electric Power Company for its failure to fully purchase grid electricity from renewable energy grid-connected power projects. It has also filed several suits against State-owned and private companies on hydro power construction and air pollutant emission of petrochemical companies, however not directly related to climate change. Although its “first climate change litigation” failed, the effort of the NGO explored future possibility for climate change litigation initiated by NGOs. The basis to file a lawsuit is inspiring for new types of cause of action on climate change litigation. NGOs, as well as other social organizations, should be encouraged to initiate climate change litigation to enrich scope of participants and explore innovative types of lawsuit.

\textbf{b. Procuratorate}

The people's procuratorates in the People's Republic of China are law supervision organs of the state. It has the power to exercise the power of prosecution on criminal cases and file suits against administrative organs on the unlawful acts and omissions. Participation by procuratorate has evolved later in public interest litigation compared to NGO activity, however it has gained more momentum. Civil public interest litigation filed by NGOs derives from the amendment of Environmental Law in 2015, while after the amendment of the Administrative Procedure Law of China and Civil Procedure Law of China in 2017, Procuratorate were authorized to file public interest litigation.

Pursuant to Article 25.4 of the Administrative Procedure Law of China, People’s Procuratorate are authorized to initiate public interest litigation when social or State

\textsuperscript{72} ibid Art 5.

\textsuperscript{73} See December 28, 2018, 自然之友环境研究所诉国家电网甘肃公司案, 甘肃省高级人民法院 (2018) 甘民终 679 号民事裁定书. [\textit{The Friends of Nature Institute v. Gansu State Grid}, [2018] Decision No. 679, High Court of Gansu Province There are disputes on whether \textit{The Friends of Nature Institute v. Gansu State Grid} is the first climate change litigation in China, depending on scope of climate change litigation.
interest is infringed due to unlawful acts or omission of administrative organs. As for civil public interest litigation, Article 58 of civil procedure law also conferred rights to People’s Procuratorate. According to paragraph 2 of Article 58, a People’s Procuratorate may file an action to the People’s Court when it discovers behaviour that harms the environment and natural resources, if no organ or institution specified in paragraph 1 of Article 58 exists to bring a lawsuit, or such an organ or institution decides not to do so. When organ or institutions file a lawsuit, a People’s Procuratorate may give endorsement to such a lawsuit, which constitutes another way for a Procuratorate to participate in proceedings.

In June 2023, the Supreme People’s Procuratorate issued 10 typical cases of prosecutors promoting carbon neutrality, covering areas like reduction of non-CO₂ GHG, increasing the carbon sink of forest, wetland and seagrass, and illegal logging. Among the 10 typical case, 5 of them are administrative public interest litigations against the government, 3 civil public interest litigations against companies and 2 are criminal incidental civil public interest litigations against individuals. Causes of actions are periphery, not directly related to climate change.

The existence of public interest litigation initiated by procuratorate marks the development of public interest litigation, however it reveals the inadequacy of social organizations, especially when defendants are governments. The Administrative Law of China did not prescribe on administrative public interest litigation: current practices by procuratorate are based on a Pilot program for procuratorial organs to initiate public interest litigation issued in 2015. Social organizations, including environmental NGOs, have no clear legal standing to initiate administrative public interest litigation against the government. With more funding and technical support, procuratorates are also more advantaged in civil public interest litigation, which leads to public interest litigation being more dominated by public sectors.

B. Jurisdiction

i. Level of jurisdiction and territorial jurisdiction

According to Article 24 and 29 of Civil Procedure Law, an action involving a contractual dispute shall come under the jurisdiction of the people's court of the place where the defendant is domiciled or where the contract is performed, and an action involving a
tort shall come under the jurisdiction of the people’s court of the place where the tort was committed or where the defendant is domiciled. 78

In general, basic people’s courts shall have jurisdiction as courts of first instance over all civil cases. However, special occasions are stipulated in the legal text. Intermediate People’s Courts have jurisdiction as courts of first instance over three types of civil cases: 1) major cases involving foreign parties; 2) cases with significant impact in the areas over which the courts exercise jurisdiction; and 3) cases determined by the Supreme People’s Court to come under the jurisdiction of the intermediate people’s courts. 79 If the social impact of the case is so significant, the jurisdiction of the case may be exercised by Higher People’s Courts (with significant impact in the areas over which they exercise jurisdiction) or the Supreme People’s Court (cases with significant impact on the whole country). 80 However, up to now no climate change litigation has been tried before Higher People’s Courts or the Supreme People’s Court for first instance.

ii. Public and Private interest litigation

According to the nature of the protected legal interests, climate change litigation can be divided into private litigation and public litigation. Climate change private interest litigation refers to litigation based on property or personal relationships between citizens, legal persons and other organizations in relation to climate. Climate change public litigation refers to lawsuits brought for the protection of social and public interests directly or indirectly related to climate change.

Climate change public litigation can be further divided into civil and administrative public litigation. Climate change civil public litigation refers to cases where the actions of companies and individuals related to climate change result in damage to social public interests. Climate change administrative public litigation refers to cases where administrative authorities illegally exercise their powers or fail to act, resulting in harm to national interests or social public interests related to climate change.

In a recently released 11 typical cases by the Supreme People’s Court in 2023, 81 the prosecutors participated as a party in four cases, among which one involved a lawsuit against a company, and three against individuals. Companies are the main parties in five cases, including three disputes between companies, one objection to an administrative penalty imposed by the local government, and one dispute with a carbon

78 Art 24, Art 29, Civil Procedure Law.
79 Art 19, Civil Procedure Law.
80 Art 20, Art 21, Civil Procedure Law.
trading platform. It is noteworthy that the trading platform itself is a form of company. Thus, company represents an important component of the parties involved in climate change-related litigation, while the prosecutor is the main participant in public interest litigation.

C. Justiciability

Justiciability refers to the types of matters that a court can adjudicate. Article 122 of Civil Procedure Law stipulated the conditions for court to hear a case: 1) the plaintiff must be a citizen, legal person or other organization with a direct interest in the case; 2) there must be a specific defendant; 3) there must be a specific claim and a specific factual basis and grounds; and 4) the action must fall within the range of civil actions accepted by the people's courts and within the jurisdiction of the people's court with which it is filed.\(^\text{82}\) Similarly, Article 41 of administrative Procedure Law also has requirements alike.\(^\text{83}\)

i. Plaintiff

The type of litigation that participants engage in differs depending on their personal interests or public welfare interests. Enterprises and individuals could file a private interest action as plaintiff, while only environmental organizations and Procuratorate have legal standings in public interest litigations. In administrative litigation, both companies or individuals are eligible to file a suit. For instance, the administrative punishment case of *Shenzhen Xiangfeng Container Company v. Shenzhen Municipal Development and Reform Commission* (hereinafter referred to as “Shenzhen Xiangfeng”) is focused on whether the administrative penalties imposed for excess carbon emissions are legal.\(^\text{84}\)

In China, the introduction of public interest litigation has largely resolved the issue of standing for climate change litigants. Plaintiffs are not required to demonstrate a direct

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\(^\text{82}\) Art 122, Civil Procedure Law.

\(^\text{83}\) See Art 41 of Administrative Procedure Law: (1) The plaintiff must be a citizen, a legal person or any other organization that considers a specific administrative act to have infringed upon his or its lawful rights and interests; (2) There must be a specific defendant or defendants; (3) There must be a specific claim and a corresponding factual basis for the suit; and (4) The suit must fall within the scope of cases acceptable to the people's courts and the specific jurisdiction of the people's court where it is filed.

\(^\text{84}\) December 21 2016, [Shenzhen Xiangfeng Container Company v. Shenzhen Municipal Development and Reform Commission](http://www.chinacourt.org/detail.php?sid=55), Decision No.450 Shenzhen Intermediate People’s Court, Guangdong. The Court held that the administrative penalty was imposed according to Measures for the Administration of Carbon Emissions Trading (for Trial Implementation), the law is applied correctly and the penalty procedure is lawful.
interest, but can instead represent the public interest of the environment and climate by bringing the lawsuit.

In some cases, third parties also participate in the action. Third Party could be enterprises, which is relatively common in contract disputes. For example, in the contract dispute between Guangxi Xindongyun Mining Co., Ltd and Inner Mongolia Baijian Cement LLC, Guangxi Guimin Tou Pearl Cement LLC and Zhejiang China Construction Network Technology Co., Ltd. involved as third party in the first-instance trial. However, participation of third party is not active according to those 11 typical cases issued by the Supreme Court.

In China, a similar mechanism like third parties in public interest litigation is “supporting institution”. Article 15 of Civil Procedure Law authorized State organ, public organizations and enterprises or institutions to support plaintiffs in cases that infringed upon civil rights and interest of State, collective organization or individuals. Such provision provided ways for NGOs, research institutes and other social organizations to participate in climate change public interest litigation. In *The Friends of Nature Institute v. Gansu State Grid*, the Center for Legal Assistance to Pollution Victims (CLAPV) of China University of Political Science and Law participated in the lawsuit as a supporting institution. Involvement of supporting institutions could facilitate the plaintiff with specific knowledge, thus provide assistance to those plaintiffs.

To expand participants of climate change litigation, participants should be more various. Promotion of mechanisms such as People’s Assessor System and hearing could facilitate with the process and increase scope of participants. Further participation from NGOs should be encouraged, by providing policy, financial or technical support.

**ii. Specific Defendant**

The scope of defendants is broad, including local governments and their agencies, companies, financial institutions, and individuals. Civil litigation is primarily aimed at companies, while criminal litigation is primarily aimed at individuals. For instance, in

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86 Art15, Civil Procedure Law. “Where an act has infringed upon the civil rights and interests of the State, a collective organization or an individual, any State organ, public organization, enterprise or institution may support the injured unit or individual to bring an action in a people's court.”

criminal and civil public interest lawsuits like illegal logging, the defendants were both individuals who had illegally felled trees.

A “specific” defendant must conduct the action charged. In the case of The Friends of Nature Institute v. Gansu State Grid, the district court held that the electric power company is only in charge of purchase and distribution of power, which is not a power plant and thus could not conduct the action of environmental pollution or ecologic damage, and dismissed the claim. However, the High People’s Court of Gansu Province ruled that the requirement of “specific defendant” and “specific claim and a specific factual basis and grounds” is fulfilled, and thus accepted the case.88

a. Individuals and Companies
There are more criminal cases related to climate change in which individuals are defendants, mostly illegal logging cases. In civil area, companies are still the major participant as defendants.

b. Government
Government is not a rare type of defendant in climate change litigation. Government could be sued by individuals, enterprises and procuratorates in administrative litigation. In China, one of the most common conditions is company sue the administrative branch for wrongly impose penalty and fine on them. For these cases, their links with climate change are the regulation as legal basis for penalty is relevant to climate change. For example, in the administrative punishment case of Shenzhen Xiangfeng, the Shenzhen Municipal Development and Reform Commission was sued for requiring the plaintiff company to repay a quota equal to the excess carbon emissions, based on the plaintiff’s failure to perform its 2014 carbon emission performance obligations timely and fully.89 Such practice is also common when the plaintiff is individual. However, there are still insufficient participations regarding to types of cases. Most of the cases are private interest litigation, instead of public interest litigation. The interest protected is not directly related to climate change, more often property rights. According to Administrative Procedural Law of China, individuals, corporations and other organizations are entitled to initiated litigations in scenarios that administrative action of government infringes upon their rights.90 Theoretically, public interest litigation initiated by NGOs, even individuals, is possible. However, challenge legality of an administrative penalty is undoubtedly in the scope of the law, but accuse inaction of government in carbon emission reduce is controversial, especially when there is no legal provision directly

88 ibid.
90 Art 2, Administrative Procedure Law.
prescribe individual rights relevant to climate change. Thus, instead of individuals and social organizations, procuratorates become the actor to sue government in public interest litigations.

Compared to other States, a more unique feature in China’s climate litigation is that procuratorates plays a dominating role in filing public interest suits against government. Cases against departments of local governments are filed for not performing duties, majorly in protection of forest.\(^9\) In administrative litigation, the defendant administrative bodies not only include environmental protection departments responsible for regulating air pollutant emissions but also forestry departments that have both natural conservation areas and forest ecological protection functions. In the future, departments responsible for managing, maintaining, and supplementing agricultural green carbon and ocean blue carbon sinks, such as agricultural and marine and fishery departments, and even more broadly, agencies responsible for implementing “dual carbon” targets, such as the National Development and Reform Commission, may also become defendants.

c. A brief analysis on identity of defendants and plaintiffs in the 11 typical cases issued by People’s Supreme Court

On February 2023, the People’s Supreme Court issued 11 typical cases on promoting the goal of Carbon Peaking and Carbon Neutral.\(^9\) As typical cases with function of guidance and reference, it is necessary to observe the role of participants in these cases. The type of both plaintiffs and defendants are various. Enterprises and Procuratorate are active in both roles, while participation of NGOs are relatively few. Although governments could be sued, but not much typical cases. With regard to the identity of the defendants, companies are named as defendants in six cases, with three of those cases involving joint defendants, one is sued by the prosecutor, and one is sued by a bank (financial institution). The remaining three cases involved individual defendants, all of which had criminal implications. Individuals are mostly defendants, given that they lack legal provisions for individuals to claim rights related to climate change.

\(^9\) Ministry of Ecology and Environment. ‘Ministry of Ecology and Environment: Typical cases on judicial support and promotion on carbon peak and carbon neutral’ [mee.gov.cn] (Feb 17 2023),
Chart 1 Identities of plaintiffs and defendants in the 11 typical cases issued by the Supreme Court

<table>
<thead>
<tr>
<th>Plaintiff</th>
<th>Prosecutor</th>
<th>Enterprise</th>
<th>NGO</th>
<th>Financial Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Government</td>
<td></td>
<td>(1) the administrative punishment case of <em>Shenzhen Xiangfeng Container Company v. Shenzhen Municipal Development and Reform Commission</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[93\text{ ibid.}\]
| Individuals | (3) 1.  
Criminal case of Han Yingtao, Liu Zhiwei damaging computer information system  
2.  
A Luo Mou Jia criminal incidental civil public interest litigation case  
3.  
Chen Mouhua's case of illegal logging deforestation |  |  |
|---|---|---|---|
| Transaction platform | (1)  
*Microcarbon (Guangzhou)* Low Carbon Technology LLC v. *Guangzhou Carbon Emissions Trading Center LLC* |  |  |

### iii. Specific claim and a specific factual basis and grounds

The requirement of specific claim relies on cause of action. Contract-based claims could be performance of the contract, or validity of a contract. Tort-based claims could be compensation and apology. While factual basis and grounds are related to burden of proof and causation. Under the reversed-burden of proof designed in environmental litigations, climate change public interest litigation often could enjoy such condition, which means organizations and institutions could just provide that fact of act that pollute environment or damage ecology, and the damage caused to public interest. Private interest litigation, however, should follow the common rule of civil litigation and bear the burden of proof.
iv. Action falling within the range of suitable actions (civil/administrative) accepted by the people's courts

Article 3 of China’s Civil Procedure Law stipulates that “in dealing with the civil actions arising from disputes on property and personal relations between citizens, legal persons or other organizations and among citizens, legal persons and other organizations, the people’s courts shall apply the provisions of the Law”, 94 which confines the scope of litigation in “disputes on property and personal relations”. To fulfil the requirement of justiciability, the plaintiff must find connections between climate change and property, contract or personality rights.

Compared to civil cases, the range of administrative actions are more detailed prescribed. The people’s courts shall accept suits brought by citizens, legal persons or other organizations against specific administrative acts like “administrative sanction, compulsory administrative measure, refusal to issue a permit or license or perform its statutory duty of protecting one’s rights of the person and of property”. 95 In practice, administrative cases related to environmental protection are often brought by enterprises focus on permission or sanction.

Another major difference between civil and procedure actions is ban on specific types of cases to be heard. According to China’s administrative law, four types of cases are explicitly listed as without justiciability: (1) acts of the state in areas like national defence and foreign affairs; (2) administrative rules and regulations, regulations, or decisions and orders with general binding force formulated and announced by administrative organs; (3) decisions of an administrative organ on awards or punishments for its personnel or on the appointment or relief of duties of its personnel; and (4) specific administrative acts that shall, as provided for by law, be finally decided by an administrative organ. 96 According to Article 12, the legality of laws and regulations is not justiciable before the court. Acts from Government organs in climate change negotiation are also not justiciable.

D. Burden of Proof and Causation

For those private, contract disputes among climate change litigations, decision on existence of causation and proof burden follows the civil procedure law. Standards become special when regarding environmental, ecological issue, particularly public interest litigation. According to Article 1230 of the Civil Code, “where any dispute arises over an environmental pollution or ecological damage, the actor shall assume the

94 Art 3, Civil Procedure Law.
95 Art 11, Administrative Procedure Law.
96 Art 13, Administrative Procedure Law.
burden to prove that it should not be liable or its liability could be mitigated under certain circumstances as provided for by law or to prove that there is no causation between its conduct and the harm.”

With the increasing number of cases, clarification on evidence and causation issues becomes urgent. The newly issued *Several Provisions of the Supreme People’s Court on Evidence in Civil Litigation for Ecological and Environmental Infringement* (hereinafter referred to as *The Provisions of Evidence*) elaborated on causation issue. According to *The Provisions of Evidence*, plaintiffs should bear the burden to prove that the action of the defendant and the damage are relevant. Several factors are taken into consideration to decide the relevance between action of the defendant and the damage: Action of polluting the environment and destroying ecosystem, nature of pollutants, types of environmental medium, characteristics of ecological factors, chronological order and spatial distance of the event. All these factors are taken into account in a combined and comprehensive measure, without a fixed priority order or proportionality.

i. **Burden of proof**

Under a reversed obligation regarding the burden of proof, defendants are obliged to provide proof that causal link between action and damage does not exist. According to *The Provisions on Evidence*, to meet such requirement, defendants should prove that the pollutants discharged and the ecological impacts produced did not reach the place where the damage occurred, or the action is imposed after damage and without aggravation to damage, or there are other scenarios that made the action impossible to cause the damage.

The evidence involved in criminal cases is similar to that of general criminal cases. In the case of Han Yingtao and Liu Zhiwei’s disruption of computer information systems, “onsite diagrams and photographs, identification records and photographs, witness testimonies, monitoring reports, on-site inspection (survey) records, case investigation reports, and the defendant’s confessions and defenses” served as the basis for the judgment. In civil cases, the process of presenting evidence in cases involving contract disputes is similar to that of ordinary contract disputes, with contracts and correspondence occupying a significant portion of the evidence. In the contract dispute

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97 Art 1230, Civil Code of the People’s Republic of China.
98 Art 5, *Several Provisions of the Supreme People’s Court on Evidence in Civil Litigation for Ecological and Environmental Infringement*.
99 Art 8, *Several Provisions of the Supreme People’s Court on Evidence in Civil Litigation for Ecological and Environmental Infringement*.
100 August 31, 2018 韩英涛、刘志伟破坏计算机信息系统二审刑事裁定书（2018）津 01 刑终 567 号 Tianjin Wuqing District People’s Procuratorate v. Han Yingtao, Liu Zhiwei [2018] Decision No. 567, 1st Intermediate People’s Court of Tianjin
of Tianqing Power v. Shunfeng Investment the evidence involved in the questioning process included the CCER Service Contract between the two parties and correspondence mails.  

Different from ordinary civil and criminal cases, in environmental cases, what is more unique is the reliance on expert assessment results. It mainly concerns the accounting of carbon credits, the assessment of ecological environmental damages and the calculation of compensation, which are important sources of evidence. Such reliance is applicable in civil, criminal, and administrative litigation. Among the 11 cases issued by the Supreme People’s Court, four of them explicitly mentioned the expert assessment agencies and their results. For example, in the Shenzhen Xiangfeng administrative punishment case, Shenzhen Huantong Certification Center LLC was entrusted by the plaintiff to verify its greenhouse gas emissions in 2014. A report related to carbon emission of emission trading institutions in Shenzhen was issued by the department on April 16, 2015, provided evidence for the trial.

Climate change litigation, which belongs to environmental civil public interest litigation, follows the rules of proof in environmental civil public interest litigation, and has a certain preference for plaintiffs. This presumption shifts the burden of proof more towards the defendant. Article 14 confers on courts the authority and responsibility to investigate and collect the evidence necessary for hearing civil public interest environmental litigation cases in necessary circumstances, reflecting the characteristics of “public interest”. Article 16 stipulates that courts shall not recognize facts that are detrimental to the plaintiff and evidence acknowledged by the plaintiff during the litigation process, which is deemed to damage social public interests. This provision is also a manifestation of “public interest” and involves the maintenance of social order and good morals.

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103 A plaintiff may request the defendant to provide information on the main pollutants emitted, emission concentrations and total amount, exceedance of emissions and construction and operation of pollution prevention and control facilities. If the defendant refuses to provide the information that is obliged to provide prescribed in laws and regulations or it is evidenced the defendant refused to provide the information it possesses, and the relevant facts claimed by the plaintiff go against the defendant, the People’s Court may presume that the claim is tenable.
According to the Civil Code, social organizations that bring public interest litigation may receive certain support in terms of burden of proof, such as assistance in the investigation and evidence collection. Given environmental issues that are highly technical and costly to prove, the Interpretation also designed some balanced provisions to support it, such as the expert testimony system and technical assistants. The provisions on expert opinions and appraisals in environmental public interest litigation reflect the requirement for scientific and professional expertise and underscore the support given to the plaintiff in terms of evidentiary requirements.

ii. Causation

The issue of causation arises due to the difficulty in attributing climate change damage to specific emission activities. This is a problem that is universally encountered. There are three main aspects to this attribution difficulty. First, the attribution between overall carbon emissions and climate damage is challenging. The behavior of greenhouse gas emissions and the occurrence of damage are separated by a long period of time, and the attribution is indirect. This involves the issue of the historical responsibility of traceable cumulative effects. Secondly, the attribution between specific carbon emission activities and climate damage is challenging. Climate change results from multiple actors' actions, and no single emitter can be attributed as the cause of particular harm. Even the largest emitters globally only account for a small fraction of total emissions. Therefore, it is difficult to associate the emission activities of a specific actor with the harm caused by climate change. This poses a challenge to the current concept of "inevitable causation". Finally, it is difficult to precisely determine the affected parties. Climate science has yet to establish a clear connection between the carbon emission sources in a particular area and specific damages caused by them, namely the causal relationship between carbon emissions and specific harms. The damage from extreme weather events is often manifested through political, social, and economic structures. The scientific attribution of weather events and the risk index of extreme weather events that courts can accept is still under development.

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104 Art 11 of the Interpretation: Prosecuting organs, departments responsible for supervision and management of environmental protection and other institutions, social organizations, and enterprises may support social organizations to file environmental civil public interest lawsuits through legal consulting, submitting written opinions and assisting in investigation and evidence collection.

105 Art 14.2 of the Interpretation: For specific issues that plaintiff should bear the burden of proof and are necessary to safeguard the public interest, the People's Court may entrust qualified appraisers to conduct appraisals. Art 15 of the Interpretation: Where a party decides to notify a person with specialized knowledge to appear before the court and submit opinions on the expert opinion made by the appraiser or on special issues such as causation, methods of ecological environment restoration, ecological environment restoration costs, and loss of eco-service functions from damage to restoration to the original status, the People's Court may allow it. The expert opinions prescribed above may be used as evidence for determining the facts after cross examination.
In response to the challenges of causation in the context of climate change, there is still much improvement room in various angles. First and foremost, advanced climate science may help reduce uncertainty, such as through the application of the Best Available Principle. By relying on the progress of climate science, it is necessary to cite the latest authoritative scientific documents for reasoning and argumentation, such as the most recent report from the IPCC. In China’s Environmental Protection Law, the expansion and interpretation of the prevention principle, the priority of protection principle and the comprehensive environment governance principle is increasingly likely to achieve the same result. As for the substantive uncertainty of climate change, the application of the risk prevention principle through preventive litigation can help solve this problem to some extent. Additionally, the reform of the legal doctrine on causation is necessary to improve causation in the field of climate change. For instance, the joint causation could replace the necessary causation, which usually causing the all-or-nothing result. Moreover, recognizing the joint conduct of each tortfeasor as the cause of the harm. Article 1172 of China’s Civil Code provides a legal basis for this proposition.
3. Remedies

The forms of relief are diverse, including direct economic compensation, third-party restoration, vicarious liability, punitive damage and apology, which is supported by Civil Code, Interpretation of the Supreme People’s Court on Several Issues concerning the Application of Law in the Conduct of Environmental Civil Public Interest Litigations and Several Provisions of the Supreme People's Court on Evidence in Civil Litigation for Ecological and Environmental Infringement. Although scenarios to apply those remedies are environmental pollution cases and ecology damage cases, climate change litigation, as an environment-related case, also applies to these forms of liability.

A. Pecuniary Remedies

Bearing the cost of damage to the ecological environment, that is, compensating for losses, is a major form of relief. Article 1235 of the Civil Code elaborated on the scope and the condition of compensation “Where a violation of the provisions issued by the state causes harm to the ecology and environment, the authority specified by the state or the organization specified by law shall have the right to require the tortfeasor to make compensation for the following losses and expenses: (1) The losses resulting from the loss of service functions from the time when damage is caused to the ecology and environment to the completion of remediation; (2) The losses resulting from permanent damage to ecological and environmental functions; (3) Expenses of investigation, authentication, and assessment of ecological and environmental damage; (4) Expenses of pollution removal and ecological and environmental remediation; (5) Reasonable expenses incurred to prevent the occurrence and aggravation of damage.” For example, in the case of Deqing Minghe, Zhejiang Institute of Eco-Environmental Science and Technology made a report on ecological environment damage assessment caused by the emission of trichlorofluoromethane. The report estimated that the ecological environment damage value was among 746421-866244 yuan, and the appraisal and assessment fee amounted to 150,000 yuan. The cost was quoted by the procuratorate in the case as compensation and the request was supported by the court.

107 See Art 18 of the Interpretation: for any conduct that pollutes the environment and damages the ecology, which has damaged the public interest or has the major risk of damaging the public interest, the plaintiff may request the defendant to assume the civil liabilities including but not limited to the cessation of the tortious act, removal of the obstruction, elimination of the danger, restoration to the original state, compensation for losses, and apology.

April 27, 2021. 德清县人民检察院、德清明禾保温材料有限公司侵权责任纠纷一审民事判决书（2020）浙05民初115号 [Deqing County People's Procuratorate v. Deqing Minghe Thermal Insulation Material Company], [2020] Decision No.115 Huzhou Intermediate People’s Court
A dynamic approach is explored by the Supreme Court to assess the amount of damage relief. In public interest litigation, for loss of ecosystem services that are difficult to calculate cost, factors like scarcity of ecosystem, difficulty of ecosystem restoration, operational cost of equipment to combat environmental pollution are considered to find out a reasonable amount of damage.\footnote{Art 31, \textit{Several Provisions of the Supreme People's Court on Evidence in Civil Litigation for Ecological and Environmental Infringement}.} Similar approaches are used in private interest civil litigations, in which the extent to which the infringement caused damage to the plaintiff, interest brought by infringement and the extent of fault are considered.\footnote{ibid Art 30.}

Punitive damages for the ecological environment are prescribed in Article 1232 of Civil code, which impose a punitive damage for those defendants intentionally committed a wrongful act and caused serious consequences.\footnote{Art 1232, Civil Code of the People’s Republic of China.} An interpretation of application of punitive damages for the ecological environment was subsequently issued in 2022, which clarified the conditions to meet “intentionally” “serious impact” and the approach to calculate punitive damages.\footnote{Art 7-Art 10, \textit{The Interpretation of the Supreme People's Court on the Application of Punitive Damages in the Trial of Ecological and Environmental Infringement Dispute Cases}.} However, until 2023, punitive damage has never been applied in climate change litigation in China. Since the scope of punitive damage is tort cases in environmental pollution and destroy of ecosystems, with a potential to be applied in the future cases, punitive damage is still noteworthy to be explored.

\section*{B. Non-pecuniary Remedies}

Compensation related to carbon sinks has become an innovative form of remedy in climate change litigation in China. In Fujian Province, a novel way to perform ecological restoration has been practiced in a series of illegal logging criminal cases.\footnote{January 08, 2022 吴岳滥伐林木罪审刑事判决书 (2021) 闽 0721 刑初 139 号 Shunchang County People's Procuratorate v. Wu Yuechang [2021] Decision No.139, Shunchang County People's Court of Fujian Province; November 30, 2020 许春荣滥伐林木罪审刑事判决书 (2020) 闽 0721 刑初 216 号 Shunchang County People's Procuratorate v. Xu Chunrong [2020] Decision No.216 Shunchang County People's Court of Fujian Province.} Local government started carbon sink project, defendants that voluntarily purchased the carbon sink could be regarded as an alternative to restoration.\footnote{ibid.} Since the increase of carbon sink is an important part of mitigation, forest carbon sink compensation has the potential to further develop.

Apology is a remedy often supplemented with other methods of remedies. Its feature to raise public awareness makes such methods often claimed in public interest litigation.
In public interest litigations, two cases filed by NGO against enterprises mentioned apology, however with one of the cases dismissed and the other one in process, none of the requirements of apology was supported by court until now.\textsuperscript{116}

In terms of specific ways of bearing responsibility, traditional remedies are no longer sufficient to deal with the characteristics of climate change litigation, and new remedies need to be explored, such as injunctions and restoration of the ecological environment. The following four aspects may need to be considered in the future development of relief methods:

1) Preventative: exploring the applicability of environmental prohibitions, ecological damages compensation.
2) Restorative: applicability of ecological environment restoration in climate damage
3) Flexibility: especially in the field of climate public interest litigation, such as the establishment of a climate change special committee, alternative restoration, public apology.
4) Cost-effectiveness: measuring feasibility according to the principle of proportionality

Conclusion

Fulfilment of obligations under the Paris Agreement and development of “dual carbon goals” bolster the development of climate change litigation. Policies are supportive and laws specifically aimed to combat climate change are under discussion, which provides an advantageous context for climate change litigation.

Although developing rapidly, climate change litigation in China is facing various obstacles. Some of the obstacles come from scientific, economic and political areas. Firstly, climate science exhibits uncertainty, with disputes still existing regarding attribution and development trends. This uncertainty at the international level has brought about a “prisoner’s dilemma” regarding collective action for global climate governance. Domestically, it poses a challenge to the legal and social responsibilities of companies participating in climate governance. Secondly, climate issues have become politicized, as they not only involve environmental concerns but also North-South conflicts and geopolitics. The boundaries of judge’s safeguarding and supervisory roles domestically are also related to this politicization. Finally, climate issues have economic implications, with high costs associated with climate governance. The issue of cost allocation has arisen internationally due to differences in carbon neutrality action costs among countries and the need for fair transitions. Controversies arising from policy differences have resulted in proposals for a “carbon border tax”. Similarly, there are economic obstacles domestically, such as how to balance climate change and economic development. Precautionary measures against climate risks require cost-benefit analysis to balance economic concerns.

As for legal aspects, there are still obstacles that hinder the development of climate change litigation. One of the underdeveloped areas of China’s climate change litigation is the shortage of causes of actions directly under environmental law, energy law or other provisions directly related to climate change. A possible reason is that China has an inadequate mechanism of climate change law, which leaves legal gaps in the regulation and legal status of the GHG and carbon trade. Regional legislation on climate change is fragmented, most of it involves “soft” provisions that encourage climate mitigation and adaptation measures, without liability for breach. As for future developments, emission reduction cases related to non-CO₂ GHGs (Methane, Nitrous Oxide, Fluorine Oxides) and climate change adaptation cases would be promising, as the current practices in air pollution public interest litigation and forestry carbon sink indicate. Relevant legislations are steadily improving with synergies between different crucial areas, which intensify carbon reduction and pollution prevention strategies in all aspects. Emission reduction cases related to non-CO₂ GHGs could play an important role timely and effectively in crucial sectors and areas of urgent need in climate change, such as joint control of GHGs and air pollutants, coordinating prevention and control of methane solid waste and sewage. While in climate adaption cases, relevant legislation is also consistently updated and improved, especially in the conservation of
rivers, water sources, wetlands, and farmland. These newly emerged laws and regulations would provide solid legal sources for litigation.

To find causes of actions, laws and regulations directly prescribing climate change is needed. Administrative litigation against inaction of government and litigation against enterprises on fraud data on carbon emission can gain legal basis if a specific “climate change law” has been made. Compared to European and American practice, causes of action based on HR laws, tort laws, and laws related to the commercial sector (including company law, fraud law and consumer law) are immature, or even without cases. To enrich the scope of causes of action, laws and regulations are urgently required.

The procedural issues of climate change litigation are often in regard to litigants and judicial procedures such as standing, proof of burden and trials rules. Since causes of action could be civil, criminal or administrative, litigants could be companies, individuals or governments respectively. Among the cases, companies are a major target in contract disputes relating to carbon trade. Individuals are often involved in criminal cases as the defendant. Due to the introduction of public interest litigation, the judiciability of potential climate change claims increases. Qualified NGOs are able to launch a case as plaintiff, which solves the standing problem confronted by most of other jurisdictions. With still limited participation of NGOs in climate change litigation, it is suggested that more policy, financial and technical supports should be provided to NGOs to encourage involvement from society. When it comes to procedures, the proof burden for plaintiff is reduced at large under the public interest litigation model. They are required to provide the primary evidence for causality, whilst the defendant must prove there are exceptional situations in case of liabilities to be exercised. In the private interest cases for instance carbon trade contractual disputes, the Green Civil Code creates an environmentally-friendly atmosphere in general. In addition to this, the trial procedures developed under the specialized environmental jurisdiction like green court work in a certain way. Good examples are rules of expert testimony, technical assistant and people juror. In the new types of cases such as green finance and carbon emission trading, these trial rules and practices enhance litigants’ trust, offering necessary guidance for both litigants and judges. It should also be noted that due to the legal gaps that exist in climate change law and unified standards on carbon trading, local laws and regulations played an important role in the rules considered by the court. To smooth the procedure of climate change litigation further, unified laws, regulations and standards at the national level are highly recommended to be promulgated in near future.

Remedies of climate change litigation cover both the pecuniary and non-pecuniary, varying from cease of infringement, ecological damages compensation, restoration and public apology. Identifying types of pecuniary remedies and specific amounts would involve assessment from appraisal bodies who closely participate in trials, and
thereafter implementation and enforcement. Since the Civil Code has formulated the specialized chapter on ecological liabilities, climate change claims are more or less encouraged. As local practices illustrated, various forms of remedies increase the judiciability of climate cases, due to the fact that infringed interests become more remediable. For instance, alternative restoration like replanting and regreening, restocking and releasing could potentially be used in climate mitigation cases. In theory, this progress may help to distinguish unique climate change liabilities from general environmental cases.

In summary, climate change litigation in China is still new and somewhat immature, however it is developing in a rapid and constructive manner. Like many other countries, insufficient climate change law brings difficulties in finding causes of action. However, the focus of judicial practices on GHG emissions reduction, carbon sinks preservation and contract disputes within the carbon emission trade has given impetus to the development of rules in these areas. To some extent, climate change litigation contributes to improving China’s climate change legislation in turn. They responded to solve growing disputes in carbon markets and other carbon-related projects, explored novel approaches to conserve carbon sinks. Although largely conducted by public sector employees such as prosecutors, contract disputes between corporations and public interest litigation initiated by NGOs has also enriched climate change litigation. With progressively improved legislation and the current climate-friendly policies, climate change litigation is highly likely to welcome continuous and positive developments, with more participation from NGOs and broader causes of action.