Give it a Nudge: A Comparative Analysis of the Values and Application of Voluntary Environmental Programs in the United States

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GIVE IT A NUDGE:
A COMPARATIVE ANALYSIS OF THE VALUES AND APPLICATION OF
VOLUNTARY ENVIRONMENTAL PROGRAMS
IN THE UNITED STATES AND CHINA

A dissertation submitted
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# TABLE OF CONTENTS

**DEDICATION**...........................................................................................................................................VIII  
**ACKNOWLEDGEMENTS** ..............................................................................................................................IX  
**LIST OF ABBREVIATIONS** ........................................................................................................................XII  
**BACKGROUND** ........................................................................................................................................XIII  

## CHAPTER 1 INTRODUCTION .......................................................................................................................... 1  
1.1 Existing Literature Review .......................................................................................................................... 4  
  1.1.1 Voluntary Environmental Programs vs. Voluntary Approaches ......................................................... 4  
  1.1.2 Common Research Approaches ............................................................................................................. 8  
  1.1.3 Existing Findings and Limitations ......................................................................................................... 12  
1.2 Revisit Voluntary Environmental Programs with the Program-Organizer-Focused Perspective .................. 16  
1.3 The Theoretical Basis of Voluntary Environmental Programs .................................................................... 22  
  1.3.1 Self-Governance Theory ....................................................................................................................... 23  
  1.3.2 Business Ethics ..................................................................................................................................... 27  
  1.3.3 Nudge Theory ...................................................................................................................................... 32  

## CHAPTER 2 UNILATERAL ENVIRONMENTAL COMMITMENTS BY INDIVIDUAL FIRMS ................................................................. 37  
2.1 Corporate Social Responsibility and Environmental Sustainability .......................................................... 40  
  2.1.1 The Triple Bottom Line Theory ............................................................................................................. 40  
  2.1.2 CSR Legislation in the U.S .................................................................................................................... 43  
  2.1.3 CSR Legislation in China ..................................................................................................................... 45
2.2 Motivation for Companies to Adopt CSR Practice and Environmental Commitments

2.2.1 Value-Driven CSR

2.2.2 Performance-Driven CSR

2.2.3 Stakeholder-Driven CSR

2.3 Proposed Indicators to Measure Unilateral Corporate Environmental Commitments’ Effectiveness

2.3.1 The Company Leadership’s Willingness

2.3.2 Environmental Commitment Content

2.3.3 Stakeholder Participation

2.3.4 The Quality of Information Disclosure

2.4 How Existing Laws Support and Monitor Unilateral Corporate Environmental Commitments’ Effectiveness

2.4.1 Corporate Code of Ethics

2.4.2 Directors’ Fiduciary Duties

2.4.3 Standards for Publicly Listed Companies’ Disclosure and Related Responsibilities

2.4.4 Corporate Environmental Claims and Greenwashing

2.5 What is Needed: From Unilateral Corporate Commitments to Future Legislation

CHAPTER 3 VOLUNTARY ENVIRONMENTAL PROGRAMS ORGANIZED BY CIVIL SOCIETY ORGANIZATIONS
3.1 Key Civil Society Organizations ................................................................. 144
  3.1.1 The Forms of CSO and NGO in Domestic Legislation ....................... 145
  3.1.2 Philanthropy Groups ........................................................................... 152
  3.1.3 Industrial Associations ........................................................................ 159
  3.1.4 Community Organizations ................................................................. 165

3.2 Motivations for Developing and Joining Civil Society Organizations' Voluntary
Environmental Programs ............................................................................... 172
  3.2.1 Motivations for CSOs to Organize VEPs ............................................. 172
  3.2.2 Values for Joining CSOs-organized VEPs ........................................... 174
  3.2.3 Drivers of Establishing Cross-Sector Partnerships ............................... 176

3.3 Types of Voluntary Environmental Programs Organized by Civil Society
Organizations ................................................................................................. 182
  3.3.1 Voluntary Standards ........................................................................... 182
  3.3.2 Donation-Based Programs .................................................................... 192
  3.3.3 Data-Compiling and Reporting Programs ........................................... 197
  3.3.4 Research and Education Programs ..................................................... 204

3.4 How Existing Laws Support and Monitor the Effectiveness of CSO-Organized
Voluntary Environmental Programs ............................................................. 206
  3.4.1 The Willingness of the VEP Organizer ................................................. 208
  3.4.2 The Substantial Content of VEP Design .............................................. 219
  3.4.3 Stakeholder Participation ..................................................................... 229
  3.4.4 The Quality of Information Disclosure ............................................... 232
3.5 What is Needed: From CSO-Organized Voluntary Environmental Programs to Future Legislation ........................................................................................................................................... 239

CHAPTER 4 GOVERNMENT-ORGANIZED VOLUNTARY ENVIRONMENTAL PROGRAMS ........................................................................................................................................ 249

4.1 Motivations for Developing and Joining Government-Organized Voluntary Environmental Programs ........................................................................................................................................ 252

4.1.1 Key Governmental Agencies ................................................................................................................................................................................................. 252

4.1.2 Values for Joining Government-Organized VEPs ....................................................................................................................................................... 261

4.2 Government-Organized Voluntary Environmental Programs and Pilot Programs ........................................................................................................................................ 264

4.3 Types of Voluntary Approaches Used in Government-Organized Voluntary Environmental Programs ........................................................................................................................................ 285

4.3.1 Negotiated Agreements ................................................................................................................................................................................................. 286

4.3.2 Non-Negotiable Agreements ....................................................................................................................................................................................... 297

4.3.3 Application-based Statements ..................................................................................................................................................................................... 311

4.3.4 Guidance .................................................................................................................................................................................................................. 322

4.4 How Existing Laws Support and Monitor the Effectiveness of Government-Organized Voluntary Environmental Programs ........................................................................................................................................ 330

4.4.1 The Willingness of the VEP Organizer ................................................................................................................................................................. 331

4.4.2 The Substantial Content of VEP Design ................................................................................................................................................................. 332

4.4.3 Stakeholder Participation ......................................................................................................................................................................................... 337

4.4.4 The Quality of Information Disclosure ................................................................................................................................................................. 340
4.5 What is Needed: From Government-Organized Voluntary Environmental Programs to Future Legislation ................................................................. 346

CHAPTER 5 COMPARISON AND CONCLUSIONS .................................. 360

REFERENCES .................................................................................. 369
To James and Lynzi

For your endless support, trust, love, and time we spent exploring nature together.
ACKNOWLEDGEMENTS

How time flies. I have studied environmental law for over a decade.

In 2009, I was unsure about taking the national postgraduate entrance examination when I was about to graduate from my undergraduate degree. That year, the Copenhagen Climate Conference was a hot topic in the media. I learned about environmental law for the first time and was then inspired by “Silent Spring.” I decided to take the exam and study environmental law systematically.

In 2010, I was admitted to Sun Yat-sen University to study environmental law. There were only six environmental law students, including myself. We always gathered around a round table, where we learned about various international treaties, principles, and innovative theories. I am the only one of the six environmental law students who pursued it further, fascinated by environmental law’s charm.

After graduating from Sun Yat-sen University, I came to Pace to study LLM in climate change in 2012. After graduating from the LLM program, I have worked as a legal professional focusing on climate mitigation.

In 2020, when the world was fighting COVID19, I became an SJD candidate at Pace Law School. Four years later, I finally came to the moment when my thesis was completed. The thesis reflects some of my experiences, observations and thoughts on studying and practicing environmental law over the years.
Environmental law has been my passion and identity for fifteen years. Through all the ups and downs, I have never regretted choosing this path. I have dedicated myself to learning and practicing environmental law in every stage of my career.

During this process, I am deeply grateful to Professor Ottinger, who has been my mentor and role model since 2012. He has guided me through various research projects and taught me valuable lessons with his humility, kindness, sensitivity and erudition. His sincere teachings have enriched my life and career. Over the past four years, Prof. Ottinger also offered insightful suggestions and constructive feedback for my SJD thesis’ refinement.

I also want to thank Prof. Jason Czarnezki, who gave me helpful advice when I thought of pursuing a PhD in 2018. He witnessed my learning journey from Sun Yat-sen University to Pace.

I want to express my gratitude to the following people who have supported me in my journey with environmental law:

Professors Li Zhiping and Gu Dejin of Sun Yat-sen University, who introduced me to the field of environmental law;

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The Pace Law School, which provided me with a platform to work with distinguished environmental law scholars such as Prof. Nick Robinson, and acquire lifelong friendships (Jenne, Elizabeth, and Sophie);

And my colleagues and business partners, who have been working hard to reduce emissions despite all the challenges. This thesis is a tribute to your efforts.

Last but not least, I want to thank my dearest family in China and the U.S. for their love and support. They, particularly my husband James, give me strength to pursue my career. And my daughter Lynzi—she was born during the second year working on my SJD thesis. Her innocent smile reminds me of the need to do more for the environment and her generation.

I am inspired by the words of Qu Yuan, a famous Chinese poet who pursued the truth despite the challenges. He wrote: “Long, long is my road, and far, far is the journey; high and low, up and down, I’ll search with will.” This is also my motivation to dedicate myself to environmental law development.

This paper marks the start of a new phase in my journey. I am eager and prepared for the challenges and opportunities ahead.

Pianpian

April 2024
### LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>CCE</td>
<td>Corporate Code of Ethics</td>
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<td>CDP</td>
<td>Carbon Disclosure Project</td>
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<tr>
<td>CPC</td>
<td>Communist Party of China</td>
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<tr>
<td>CSO</td>
<td>Civil Society Organizations</td>
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<td>CSR</td>
<td>Corporate Social Responsibility</td>
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<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
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<tr>
<td>ESG</td>
<td>Environmental, Social, and Governance</td>
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<tr>
<td>FOIA</td>
<td>Freedom of Information Act</td>
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<td>GHG</td>
<td>Greenhouse Gas</td>
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<td>GRI</td>
<td>Global Reporting Initiative</td>
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<tr>
<td>INGO</td>
<td>International Non-Governmental Organization</td>
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<tr>
<td>IPE</td>
<td>Institute of Public and Environmental Affairs</td>
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<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
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<tr>
<td>OECD</td>
<td>Organization for Economic Co-Operation and Development</td>
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<tr>
<td>RGGI</td>
<td>Regional Greenhouse Gas Initiative</td>
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<tr>
<td>PMIAA</td>
<td>Program Management Improvement Accountability Act</td>
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<tr>
<td>SEC</td>
<td>Securities Exchange Commission</td>
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<tr>
<td>SME</td>
<td>Small and Medium-sized Enterprise</td>
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<tr>
<td>TBL</td>
<td>Triple Bottom Line</td>
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<tr>
<td>VEP</td>
<td>Voluntary Environmental Program</td>
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<td>WWF</td>
<td>World Wildlife Fund</td>
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BACKGROUND

Environmental law involves a series of laws, policies and procedures which share the goal of protecting the environment. Notwithstanding early analogues, the concept of "environmental law" as a separate and distinct body of law is a twentieth-century development.¹

Environmental law has rapidly evolved globally in three periods: 1950-1979, 1980-2012, and 2013 to present. As a result of modern economic growth, environmental law was developed to deal with various pollution problems that occurred in the 1950s-1960s. Later in the 1980s, environmental law was expanded to include natural resources protection with a focus on the principle of sustainability. With the implementation of the Kyoto Protocol between 2008-2012, an international treaty to the United Nations Framework Convention on Climate Change, the focal point of environmental law in the new era has evolved to address climate change. The author noticed that the development of environmental law does not only reflect the changes in focus over the years, but also approaches used.

The author highlighted three development phases of environmental law to show the evolution of human understandings of the relationship between society and the environment, different social actors, and their behaviors under various legal approaches. It does not imply any individual approach can take over the others. Instead, command and control regulations, market incentives and cross-sector collaborations derived from the

three development phases should be used proportionally to achieve practical environmental governance.

**Command and Control Era**

U.S. federal command and control regulations include uniform performance and technology standards.\(^2\) Such regulations usually work as follows pursuant to applicable congressional legislation:\(^3\) (1) government agencies write regulations setting general standards for pollution control, (2) the agencies issue permits setting particular requirements for individual facilities, (3) regulated private entities operate their facilities in any way they choose so long as they meet the minimum permit requirements, and (4) if permit conditions are violated, the government agencies or citizen organizations bring enforcement actions against the responsible private parties. These laws, which specify allowable quantities of pollution and may also detail which pollution-control technologies must be used, are therefore called command and control regulations, also described as a technology-based approach.\(^4\)

From 1950-1979, U.S. pollution control programs primarily consisted of the command and control regulations and policies. By incorporating the technology-based


command and control regulations, many landmark laws, such as the Clean Air Act and Clean Water Act, have been highly successful in protecting and cleaning up the U.S.’s environment. During this period, states, cities, and municipalities also issued pollution control measures, sometimes forming the basis for additional federal controls. For example, the State of California established the first tailpipe emissions standards in the nation in 1966. To recognize California’s efforts to regulate air pollutants, the 1970 Clean Air Act granted the state permission to set more stringent air pollution standards than federal requirements for cars and light trucks. From 1966 to current, the State of California has continuously strengthened automobile efficiency requirements and influenced other states to adopt similar measures.

5 In its first 20 years, the Clean Air Act prevented more than 200,000 premature deaths by significantly reducing the presence of lead, sulfur dioxide and other harmful pollutants in the air. See Milestones in EPA and Environmental History-Clean Air Act of 1970, U.S. ENV’T PROT. AGENCY, https://www.epa.gov/history/milestones-epa-and-environmental-history (last visited Nov. 9, 2023) Over the past half-century, the Clean Water Act has brought U.S. waters back to life – turning rivers and lakes from dumping grounds into productive, healthy waterways again. It keeps 700 billion pounds of pollutants out of our waters annually, has slowed the rate of wetland loss, and doubled the number of waters that are safe for fishing and swimming. Levels of metals like lead in our rivers have declined dramatically. See Clean Water Act, THE NATIONAL WILDLIFE FEDERATION, https://www.nwf.org/Our-Work/Waters/Clean-Water-Act (last visited Nov. 9, 2023).


7 The 1970 Clean Air Act section 209(b) waiver is limited “to any State which has adopted standards . . . for the control of emissions from new motor vehicles or new motor vehicle engines prior to March 30, 1966,” and California is the only State that had standards in place before that date. See Clean Air Act, 42 U.S.C. § 7543(b) (2022).

8 As of August 2022, fourteen states have adopted both California’s Zero-Emission Vehicle program as well as the Low-Emission Vehicle standards: Colorado, Connecticut, Maine, Maryland, Massachusetts, Minnesota, New Jersey, Nevada, New Mexico, New York, Oregon, Rhode Island, Vermont, Virginia, and Washington. Delaware,
China, inspired by the developed countries’ pollution problem solutions and through attending the United Nations Conference on the Human Environment held in Stockholm in 1972, started developing its initial environmental law and governmental agencies in the 1970s. In 1973, China organized the First National Environmental Protection Conference and passed its first governmental environmental resolution, the Decision of the State Council on Several Issues Concerning Environmental Protection and Improvement. This decision established the principle of “Three Simultaneities” to tackle pollution problems, by designing anti-pollution devices or measures to be built and put into simultaneous production within main parts of projects.


9 See LIU JUNHUI & WANG JIA (刘军会, 王佳), ZHONGGUO HUANJING (中国环境) [China’s Environment] (1st, 2010), Di’er Zhang: Zhongguo Huanjing Baohu Shiye de Fazhan (第二章: 中国环境保护事业的发展) [Ch. 2: The Development of Environmental Protection in China].


11 Id.
The “Three Simultaneities” principle was also reflected in the People's Republic of China Environmental Protection Law (Interim) adopted in 1979. It required “[a]ll enterprises and institutions must pay full attention to preventing environmental pollution and damage during site selection, design, construction and production. When carrying out new construction, reconstruction and expansion projects, a report on the impact on the environment must be submitted, and the design can only be carried out after review and approval by the environmental protection department and other relevant departments; facilities to prevent pollution and other public hazards must be designed at the same time as the main project. Simultaneous construction and simultaneous production; the discharge of various hazardous substances must comply with national standards.” The implementation of the “Three Simultaneities” principle relies on governments to set up pollution standards and ensure companies comply. These requirements show that China also used command and control regulations to deal with pollutants during this period.

**Market Incentives Era**

Despite the U.S.’ successes with pollution management, some dissatisfaction with the technology-based standards approach had become evident by the late 1980s. The most persuasive arguments against such measures were that the costs were too high and that the existing regulations provided inadequate incentives to pursue emission

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13 *Id.*
reduction. Thus, economists and legal scholars explored the opportunities of using market-based approaches such as emission trading to control pollution. In 1990, emission trading became law as part of the U.S. Clean Air Act of 1990, indicating that environmental law had entered a new era of regulation approach.

Market-based regulation usually includes marketable permit systems (such as cap-and-trade programs, project-based systems and emission trading systems), emission taxes, environmental subsidies, and tax-subsidy combinations. These programs strengthen the implementation of environmental law by providing more flexibility to “minimize polluters’ abatement costs, an objective that often is not achieved under

14 During the Reagan administration (1980-1988), 70 different bills were introduced to address the acid rain problem, and every single one was slapped down. The concept of "command-and-control" is considered, in which power plants would have been required to install "scrubbers" that remove sulfur dioxide from their emissions. However, the impact on utilities was deemed too costly and the regulation thus sometimes was deemed as impractical. See Richard Conniff, The Political History of Cap and Trade, SMITHSONIAN MAG., (Aug. 2009), available at https://www.smithsonianmag.com/science-nature/the-political-history-of-cap-and-trade-34711212/ (last visited Feb. 2, 2020). A second important factor influenced the drama. Emissions from small businesses and consumer products sometimes exceeded the emissions from major sources. The historic premise, that the region could attain clean air by only regulating mobile sources and the “big guys,” was crumbling. Broadening the base of who was subject to regulations created angst. Large and small sources alike joined forces in the revolution and increased the potential for launching a market-based system. See Pat Leyden, The Price of Change: The Market Incentive Revolution, NAT. RESOURCES & ENV’T, 12-WTR, 160 (1998).

15 The idea of emission trading was suggested by Economist John Dales in 1968, which paved the way to use a market-based approach to control pollution. See John J. Fialka, Cap and Trade-- the Meandering Path of an Idea to Curb Pollution, (Nov. 16, 2011), E&E NEWS, available at https://www.eenews.net/stories/1059956477 (last visited Feb. 2, 2020).

16 U.S. Env’t Prot. Agency, supra note 2, at 5-12.
command and control based approaches”. Furthermore, market-based regulations place lower burdens on the regulator regarding evidence and data collection required to prove businesses’ compliance, and they may provide incentives for technological advances.

In the U.S., the market-based Acid Rain Program under the Clean Air Act of 1990 entered into effect in 1994 and proved to be “both an environmental and an economic success story.” In 1995, the first year of required Clean Air Act compliance, it achieved an overall reduction of 5.6 million tons from 1980 levels, with most of the reduction occurring between 1994 and 1995. With the effective results of the U.S. market-based solution, the United Nations Framework Convention on Climate Change proposed to incorporate a cap-and-trade scheme into the Kyoto Protocol to help industrialized nations reduce their greenhouse gas (GHG) emissions. Other than dealing with air pollutants, market-based regulation is also used for natural resources protection and management in the U.S., such as watershed protection, land use and other conservation subsidies.

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17 Id.
18 Id.
20 Id.
22 Czarnezki and Fiedler compiled and summarized U.S. laws and regulations of using market-based incentives to conserve nature resources. See Jason J. Czarnezki & Katherine Fiedler, The Neoliberal Turn in Environmental Regulation, UTAH LAW REVIEW Vol. 2016, No.1, Article 1, at 10-14, available at https://dc.law.utah.edu/cgi/viewcontent.cgi?article=1019&context=ulr (last visited Nov. 13, 2020)
Applying market-based incentives in environmental law does not mean that command and control regulation is being phased out in the U.S.. To the contrary, the two different types of legal tools work together to ensure effective environmental law compliance. According to Harrington and Morgenstern, almost all U.S. environmental policies relied on direct regulation, with very rare instances of economic incentive instruments in the 1970s. However, since the late 1980s, whenever a new policy is proposed, policymakers at least consider, and often select an economic incentive instrument. They also noted that almost all the U.S. policies that they had studied are a blend of both, beginning as a command and control policy and then having economic incentive elements added or substituted.

Similarly, this is also the path that China took to further develop its environmental law. As mentioned above, compared to developed countries, environmental awareness in China started relatively late. From 1980-2012, China focused on developing basic command and control regulations to protect important environmental assets, including key laws such as Marine Environment Protection Law (1982), Water Pollution

24 Id.
25 Id.

China started incorporating economic incentives into environmental law in the 1980s, and most Chinese economic instruments are based on direct government investment and subsidies.\textsuperscript{27} According to Ling and Wu, the first economic incentive policy in China was the creation of pollutant discharge fees which began in 1982.\textsuperscript{28} Later the China government established systems for subsidies and special funds for environmental protection in 1984, and such systems still contribute to many implementation activities nowadays,\textsuperscript{29} like the Green Car Subsidy Program\textsuperscript{30} and Air

\begin{quote}
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\begin{quote}
\textsuperscript{27} See Lin Yongsheng, Wu Qichang & Yuan Mingyang (林永生, 吴其倡, 袁明扬), Zhongguo Huanjingjingji Zhengce de Yanhuatezheng (中国环境经济政策的演化特征) [Development of China’s Environmental Economic Incentives], Zhongguo Jingji Baogao (中国经济报告) [CHINA POLICY REV.], Issue 11 (2018).
\end{quote}

\begin{quote}
\textsuperscript{28} Id.
\end{quote}

\begin{quote}
\textsuperscript{29} Id.
\end{quote}
Pollution Prevention and Control Action Plan policy.\(^{31}\) Between 2006 and 2007, a few more economic incentives functioned as pilot programs were added to China’s environmental protection agenda, including green procurement (2006), environmental pollution liability insurance (2006), ecological compensation mechanisms (2007), and emission trading schemes (2007).\(^{32}\)

**Information-based and Collaboration Era**

Some private enterprises have feared that command and control regulations – which have been the cornerstone of environmental law – were too burdensome, forcing businesses to give up certain economic gains. As the first generation of environmental law, command and control regulation seemed to them to tend to put environmental

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\(^{30}\) The Green Car Subsidy Program started in early 2009. The Ministry of Finance, the Ministry of Science and Technology, the National Development and Reform Commission, and the Ministry of Industry and Information Technology launched the "Ten Cities, Thousands of Energy-saving and New Energy Vehicle Demonstration, Promotion and Application Project," with the central government arranging funds to grant subsidies and monitor the consumption of new energy vehicles in the public service areas of pilot cities. *See* Wang Wenzheng (汪文正), 2023 Nian Qi, Xinengyuan Qiche Gouzhi Butie Zhengce Zhongzhi–Butie Tuichang, Xinengyuan Qiche Ruhe Xuhang (2023 年起，新能源汽车购置补贴政策终止——补贴退场，新能源汽车如何“续航”？) [Starting from 2023, the subsidy policy for the purchase of new energy vehicles will be terminated - subsidies will be withdrawn. How will new energy vehicles last?] Xinhua Wang ( 新华网 ) [XINHUA NEWS] (Feb. 21, 2023), [http://www.news.cn/fortune/2023-02/21/c_1129382110.htm](http://www.news.cn/fortune/2023-02/21/c_1129382110.htm) (last visited Nov. 9, 2023).

\(^{31}\) Under the Plan, the State Council stated that the government will adjust and improve policies on prices, taxes, etc., and encourage private and social capital to enter the field of air pollution prevention and control. *See* Notice of the State Council on Issuing the Action Plan for Air Pollution Prevention and Control (关于印发大气污染防治行动计划的通知), issued by the State Council of the People’s Republic of China [hereinafter the St. Council] (Sep. 10, 2013), No.37, [https://www.gov.cn/zwgk/2013-09/12/content_2486773.htm](https://www.gov.cn/zwgk/2013-09/12/content_2486773.htm) (last visited Nov. 9, 2023).

\(^{32}\) LIN ET AL., *supra* note 27.
interests to be positioned against economic interests. To ease the tension between environmental and economic interests, market-based regulation aims to create a win-win solution to share both benefits. This change indicates that regulators have improved their understanding of environmental law and are exploring ways to improve environmental regulations by fostering mutual cooperation.

However, market incentives, as part of regulatory efforts, still rely on the government alone to allocate financial resources to target environmental issues by developing legislation. Because law and legal procedures lag far behind the need to meet environmental change, regulation may not always be the best way to deal with new complicated environmental problems in the beginning. Metaphorically speaking, dealing with pollution is like fixing broken components of a big machine, while new environmental challenges (such as climate change) require upgrading the entire machinery to achieve a more resilient status. In this context, environmental law must explore new approaches to achieve better environmental management.

An information-based and collaborative approach can be considered part of a “third wave” of environmental policy, following the first wave as command and control measures and the second wave as market-based incentives.33 According to Tietenberg, the conceptual economic foundation for disclosure strategies is derived from the theory of

Coase Theorem, which asserts that socially optimal risk sharing can be obtained if all stakeholders can negotiate very low-cost remedies.\textsuperscript{34} If companies and governments were able to understand each other’s positions and share risks, a consensus would be more easily reached. More importantly, information disclosure opens a bilateral relationship between the regulator and the regulated to include other civil society organizations (CSOs).\textsuperscript{35} Furthermore, thanks to technological improvement, information is easier to provide, exchange and obtain for the public and other stakeholders other than the government. CSOs together with the public, can participate in the process of development, monitoring and enforcement of environmental law.\textsuperscript{36} In other words, government would not be the only inputter to standard-setting in the society anymore.

Accordingly, informational policies encompass a broad range of instruments from mandatory disclosure programs such as the environmental impact assessment system to voluntary programs such as green labeling programs. Since the early 1990s, the U.S. government started developing voluntary environmental programs (VEPs), incorporating information disclosure requirements to reduce compliance costs and regulation

\begin{flushleft}
\textsuperscript{34} Id.
\textsuperscript{35} See Paul R. Kleindorfer & Eric W. Orts, \textit{Informational Regulation of Environmental Risks}, \textit{Risk Analysis}, 18 (2), (1998), 155-170, available at \url{https://core.ac.uk/download/pdf/219377538.pdf} (last visited Nov. 13, 2020); A civil society organization (CSO) is a legal entity whose aims are neither to generate profits nor to seek to govern power but to unite people to advance shared goals and interests. See infra the introduction of Chapter 3 for the details of the definition of CSO.
\textsuperscript{36} See discussion \textit{Infra} Part 3.1(discussing the definitions of CSOs).
\end{flushleft}
requirements to tackle new environmental challenges. Meanwhile, some CSOs have become standard-inputting bodies and engage with companies that voluntarily disclose information beyond legal requirements, when an increasing number of companies have discovered that proactive environmental management makes good business sense, including corporate environmental information disclosure.

China’s initial environmental information disclosure framework was initiated in the Law of Environmental Impact Assessment entered into effect in 2003. Between 2003 and 2016, China developed a series of laws and regulations to require companies and governments at different levels to further disclose environmental information.

38 One example is the Global Reporting Initiative (GRI), which was established in 1997 by the United Nations Environment Programme and the Coalition for Environmentally Responsible Economies (CERES). The aim was to create the first accountability mechanism to ensure companies adhere to responsible environmental conduct principles, which was then broadened to include social, economic and governance issues. *See Our Mission and History*, GLOB. REPORTING INITIATIVE, https://www.globalreporting.org/about-gri/mission-history (last visited Nov. 9, 2023).
39 See Wang Hua, Guo Hongyan & Huang Desheng (王华, 郭红燕, 黄德生), *Woguo Huanjing Xinxi Gongkaixianzhuang, Wenti yu Duice* (我国环境信息公开现状、问题与对策) [Environmental Information Disclosure in China: Status, Issues and Countermeasures], (中 国 环 境 管 理) [CHINESE J. OF ENV’T MGMT], Vol. 8 Issue (1)(2016), 83-91, available at http://zghjgl.ijournal.cn/html/zghjgl/2016/1/20160119.htm#:%E7%8E%AF%E5%A2%83%E4%BF%A1%E6%81%AF%E5%85%AC%BC%80%E4%BD%9C%E4%B8%BA%E4%B8%80, %E6%9C%9D%E5%8F%AF%E6%8C%81%E7%BB%AD%E6%96%B9%E5%90%91%E5%8F%91%E5%B1%95%E3%80%82 (last visited Nov.20, 2023)
40 These laws and regulations include but are not limited to Regulations on Open Government Information of the People's Republic of China 2008 (中华人民共和国政府信息公开条例), Guidance to Environmental Information Disclosure of Listed
China has been exploring the possibility of using voluntary approaches due to two main forces. On one hand, China’s central government introduced voluntary agreements from the U.S. and the European Union as pilot programs to support companies that commit voluntarily to energy conservation. On the other hand, the globalization of trade and the presence of multinational companies’ branches in China have spread the concept of corporate social responsibilities (CSR), leading social organizations and the public to have high expectations of local companies regarding environmental protection. The environmental awakening has caused some Chinese companies to develop and incorporate CSR initiatives. The bloom development of the CSO sector during this period also boosted the establishment of various VEPs.

The rationale of the third wave of environmental regulations empowers multiple social actors to proactively engage in environmental governance, instead of waiting for

Companies (Draft for Comments) 2010 (上市公司环境信息披露指南 (征求意见稿)), Interim Guidance to Open Government information of Appraisal of the Environmental Impacts of Construction Projects 2013 (建设项目环境影响评价政府信息公开指南 (试行)), Administrative Measures for the Disclosure of Environmental Information by Enterprises and Public Institutions 2015 (企业事业单位环境信息公开办法). Other than these specific regulations focusing on environmental information disclosure, many existing laws also incorporated this element in their revisions, such as Air Pollution Prevention and Control Law 2000 (中华人民共和国大气污染防治法).

41 The first voluntary agreement in China was set up in 2002 between the Provincial government of Shandong and two local steel-making companies, supported by the National Reform and Development Committee and the U.S. Energy Foundation. *Infra* Parts 4.3.1 and 4.3.2.

42 *Infra* Chapter 2.

43 See GOU RI (郭锐), Daode, Falv he Gongsi- Gongsi Shehui Zeren de Chengrenli (道徳、法律和公司——公司社会责的成人礼)*[Morality, Law and Corporation-Corporate Social Responsibilities’ Coming of Age]* 76-103 (2018).

44 *Infra* Chapter 3.
the government to act passively. Information-based and collaborative approaches have the potential to accelerate cooperation between different social actors to address environmental issues together.
CHAPTER 1

Introduction

*Initiative is doing the right thing without being told.*

– Victor Hugo⁴⁵

Voluntary approaches were initially adopted in many developed countries during the period of the environmental movement to address pollution dangers. Japan has used voluntary approaches since the 1960s.⁴⁶ Europe has used them since the early 1970s and the earliest European example appeared in France.⁴⁷ The presence of VEPs has mushroomed in the U.S. since first appearing in the 1980s.⁴⁸ The first voluntary approach

⁴⁵ Victor Hugo (1802-1885) was a French Romantic writer and politician.
⁴⁷ Id.
attempted in the U.S., between the federal government and industry did not occur until 1991.  

Maxwell and Lyon identified four forces in the mid to late 1980s set the stage for the rise of voluntary programs in the early 1990s, and they are: (1) mounting and increasingly complex legislation, (2) technological innovation and scientific discoveries, (3) regulatory budget cutbacks, and (4) the increasing use and effectiveness of “citizen lawsuits.”  

Besides, the adoption of voluntary approaches allows policy-makers to address environmental issues that may lie outside the existing regulatory framework or issues for which regulations may be difficult to pass due to political considerations. In the U.S., the Reagan and Bush Presidencies (1980-1992) sought to lessen government intervention, increase free markets and deregulation, which laid a foundation for the Clinton administration (1993-2001) to experiment with flexible approaches (such as market incentives and voluntary approaches) as supplements, or in some cases, alternatives to command-and-control regulation.

One feature of the Clinton Administration is that it put much greater emphasis than previous administrations on expanding the role of voluntary programs. The Clinton Administration’s major environmental accomplishments related to voluntary programs

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49 Brouhle et al., supra note 46, at 39.
51 Brouhle et al., supra note 46, at 9.
52 Czarnezkci & Fiedler, supra note 22, at 5-8.
included the following: 53 (1) the U.S. Environmental Protection Agency’s (EPA) engagement with six major industries (auto manufacturing, computers and electronics, iron and steel, metal finishing, petroleum refining, and printing) to encourage pollutant reduction on a voluntary basis under the Common Sense Initiative, (2) the U.S. EPA establishment of Project XL (“Excellence and Leadership”), which set a goal of 50 pilot projects allowing regulated firms to propose alternatives to existing command-and-control regulations that would attain higher levels of pollution control at lower cost, and (3) the release of the 1993 Climate Change Action Plan that recommended 52 voluntary measures to reduce greenhouse gas emissions. As of 2004, there were over 50 voluntary programs in the U.S. at the federal level alone. 54 Up to 2010, state and federal governments in the U.S. operated perhaps as many as 200 VEPs. 55

From the history of voluntary scheme development in developed countries, especially the U.S., the concept and the application of voluntary programs are widely accepted in the information-based and collaboration phase of environmental law development.

54 Brouhle et al., supra note 46, at 2.
1.1 Existing Literature Review

Research on the voluntary approach in environmental law peaked between 2002 and 2008 after gaining popularity in the late 1990s. Since 2011, research on the topic has continued.

1.1.1 Voluntary Environmental Programs vs. Voluntary Approaches

Although “VEPs” and “voluntary approaches” are commonly seen in academic work, neither have standard definitions.

The U.S. EPA defined VEPs as “programs [that] encourage and equip individuals, businesses, schools and other organizations to voluntarily achieve environmental results that might not otherwise be possible and foster a culture of going beyond the minimum requirements of law.”\(^{56}\) Noted that VEPs’ targeted groups include individuals, businesses and other organizations under this definition. Many VEPs organized by the U.S. EPA target state and local governments as well. Therefore, “other organizations” implies CSOs and governments at the lower levels. However, the scope of VEPs’ targeted group is narrower in existing literatures. For example, Borck and Coglianese think that VEPs seek to improve the environment by encouraging businesses and CSOs to adopt

environmentally protective measures. Their definition includes businesses and CSOs as targeted groups and excluded individuals and governments at the local levels.

Besides, most scholars developed arguments based on the assumption that companies are the only target group of various VEPs. For example, Prakash and Potoski defined VEPs as “institutions for inducing firms to produce environmental goods beyond legal requirements.” Borck and Coglianese classified VEPs into three types based on governmental involvement: (a) unilateral initiatives, (b) bilateral agreements, and (c) public voluntary programs. Unilateral initiatives are actions that individual businesses or trade associations pursue without any specific involvement or prompting by government. Bilateral agreements are negotiated between specific businesses and the government to pursue environmental objectives. Public voluntary programs are designed and sponsored by governments to recognize companies that go beyond compliance with existing regulations.

Voluntary approaches, also referred to as non-regulatory approaches, are those in which firms make commitments to improve their environmental performance beyond legal requirements, according to the Organization for Economic Co-Operation and Development (OECD).

58 Id.
60 Id.
61 Id.
62 Id.
63 Id.
Development (OECD)’s definition.\textsuperscript{64} The OECD definition, commonly accepted and used in many research and academic papers, merely focuses on corporate actions. In contrast, Hamilton et al. defined voluntary approaches as “any mechanism or program that aims to protect the environment where relevant economic agents are able to decide whether or not to participate; that is, involvement in the program is voluntary and no direct penalties are imposed on nonparticipants, although incentives may be used to encourage participation.”\textsuperscript{65} Under this definition, an “economic agent” includes “a person, company, or organization that has an influence on the economy by producing, buying, or selling.”\textsuperscript{66} Compared to the OECD’s definition, the definition proposed by Hamilton et al. expanded VEPs’ targeted groups from only companies to also incorporate individuals, governments and other organizations that influence the society’s economy.

\textsuperscript{64} ORG. ECON. COOP. & DEV. (OECD), VOLUNTARY APPROACHES FOR ENVIRONMENTAL POLICY: AN ASSESSMENT, 9 (1999), available at https://read.oecd-ilibrary.org/environment/voluntary-approaches-for-environmental-policy_9789264180260-en#page8 (last visited Nov. 12, 2023) [hereinafter the “OECD paper” or “OECD taxonomy”](The OECD is an international organization that aims to develop policy standards to promote sustainable economic growth. Noted that the U.S. is a member of OECD. While China is not a member, it has a long standing and close relationship with the OECD since the mid-1990. The OECD paper has influenced and has been referred to in major research work related to VEPs).


Like VEPs, researchers in the European Union Research Network summarize three types of common voluntary approaches:67 (1) unilateral commitments by individual firms, such as business-led corporate environmental programs; (2) public voluntary schemes, in which participating firms agree to standards that have been developed by public bodies such as environmental agencies, and (3) negotiated agreements between government authorities and industry. Later, the OECD further included “private agreements reached through direct bargaining between stakeholders”68 as the fourth type of voluntary approach.69 To further reflect on voluntary approaches’ application in real life, German scholars Töller and Böcher re-categorized the types of voluntary approaches based on their literature review:70 (1) voluntary agreements between industry associations or companies and the government; (2) eco-management-schemes; (3) certification schemes (with or without external verification included); (4) green label schemes, and; (5) reporting programs.

From the above, the definitions of VEPs and voluntary approaches are similar. Both concepts’ well-recognized definitions only focus on the relationship between the

68 Stakeholders include suppliers, investors, employees, consumers, and other interest-related parties.
government and companies and categorize the types by the government’s involvement. From this perspective, these two terms seem interchangeable.

However, the author argues that the existing taxonomies are inappropriately mis-equivalent for VEPs and voluntary approaches. The existing taxonomies categorizes public voluntary programs and negotiated agreements as two different types of VEP/voluntary approaches. Public voluntary programs are organized by government, while negotiated agreements are a procedural format for VEP organizers to engage with participants.\(^{71}\) VEP hosts (governments and CSOs) may use negotiated agreements, applications and non-negotiable agreements to engage with program participants.\(^{72}\) It is clear that the flaw of the existing taxonomies is caused by the perception of only focusing on public voluntary programs and neglecting VEPs organized by other social actors.

### 1.1.2 Common Research Approaches

VEPs have faced criticisms and doubts about their efficacy in reducing environmental degradation and risks since the 1990s. Between 2002 and 2008, researchers primarily focused on the following aspects: (a) when should voluntary approaches be used? (b) Are voluntary approaches effective in tackling environmental problems? (c) How to determine if a voluntary program is effective? (d) How to design an effective voluntary program? These research focuses point to one challenging task—how to evaluate the voluntary programs.

\(^{71}\) *Infra* Part 4.3.

\(^{72}\) *Id.*
The main hurdle of evaluating voluntary programs is to gather adequate data for analysis. Voluntary programs need to be in existence long enough to produce measurable results and data for evaluation. Plus, the improvements in environmental outcomes that many voluntary programs try to produce are often difficult to measure due to distinct program designs. To accommodate voluntary programs’ advantage flexibility, program designs and the end result measurements may vary. Such variation in measurements can make valid comparisons between programs difficult. Moreover, researchers have limited ability to collect relevant data. Therefore, most existing studies that examine the effectiveness of voluntary programs are based on specific examples that have available data or a measurable environmental output.

There are several ways to set up the research scope when studying VEPs. Some scholars try to examine one voluntary program within a particular industry as a case study. For example, the forestry industry has had a rich experience with voluntary programs, attracting considerable scholarly attention. Gunningham and Sinclair state the voluntary certification system has provided concerned consumers with a direct say in forest

73 Brouhle et al., supra note 46, at 4.
74 Id.
76 Id.
77 When voluntary programs have a measurable output, many programs do not have systems in place to collect appropriate data over time and across program participants. Even when measurements exist, measurements may not be sufficiently detailed, independently verified, or rigorously documented to allow analysis. See Id.
sustainability issues and the effective power to impose an economic penalty on unsustainably produced timber by boycotting it in the marketplace.  

Some scholars attempt to look at individual voluntary programs at the country level. Arimura et al. estimate the effects of the implementation of ISO14001 and the publication of environmental reports on the facilities’ environmental performance using Japanese facility-level data. They found that both ISO14001 adoption and report publication are effective in reducing natural resource use, solid waste generation, and wasteful use of water. Researchers also mentioned an assistance program run by governments to help promote the adoption of the ISO14001 standard and was effective.

Some scholars compile and review a list of voluntary programs. A report released by the Royal Society for the Protection of Birds, one of Europe’s largest nature conservation charities, reviews the effectiveness of more than 150 voluntary schemes, which was the largest assessment conducted. It looked at both environmentally related schemes and non-environment related schemes across a range of sectors and issues. The

80 Id.
81 Id. at 16-17.
assessment suggests that the impact of most voluntary schemes is limited. It is worth mentioning that these 150 voluntary schemes were developed and implemented by governments. The authors excluded VEPs organized by businesses and CSOs.

Other than examining voluntary schemes’ effectiveness, some research sought to determine factors that incentivize businesses to undertake voluntary programs. Lyon and Maxwell list demand-side forces due to the public’s increasing awareness and value of green products and practices, supply-side forces due to product differentiation and potential cost savings, and public policy forces due to current and potential regulation. Albertini reviewed 52 studies over a 35-year period and found that there is a positive relationship between firms’ environmental performance and their financial performance, and this relationship is influenced by the specific performance measures used. However, voluntary programs do not always create win-win situations for the environment and for companies’ bottom line. For example, Vanden and Thorburn find that firms suffered about 1% reduced stock returns after they joined the U.S. EPA’s Climate Leaders.

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83 *Id.* at 45-49.
85 *Id.*
program, an initiative for voluntary greenhouse emission reductions.\textsuperscript{87} This finding shows that firms would eat up a certain percentage of profit loss by increased trade brand recognition.

The design of voluntary programs is another topic on which scholars have focused. For example, scholars criticized that low entry barriers to establish voluntary programs allow unscrupulous sponsors to establish “greenwashes.”\textsuperscript{88} However, most of the existing research related to greenwashing is from the perspective of business management.

\subsection*{1.1.3 Existing Findings and Limitations}

Existing research shows that many researchers tend to conclude that VEPs can indeed affect behavior and produce environmental benefits, but the limitations are clear for two main reasons. Firstly, VEPs do not create legal obligations or require legislative authority. Secondly, VEPs make sense when mandatory action seems premature or lacks legal or political support. The latter situation resonates with the fact that voluntary schemes have regained increasing attention in recent years due to their application in the context of the climate crisis and political resistance.

One example at the international level is the Paris Agreement to the United Nations Framework Convention on Climate Change. The Paris Agreement adopted a framework to allow individual countries to make voluntary pledges of carbon emission

\begin{flushright}
\textsuperscript{88} See Prakash & Potoski, \textit{supra} note 59, at 133.
\end{flushright}
reductions (known as “nationally determined contributions”), called for voluntary cooperation (market- and non-market-based approaches) among countries to address carbon emissions and voluntary contributions for finance, technology, and capacity building support.\(^{89}\) Compared to the strict responsibilities that certain party countries were assigned under the Kyoto Protocol, the Paris Agreement provides more flexibility by asking countries to undertake responsibilities within their capacities, which aims to invite all countries to do their part for the urgent climate situation. Upon the submission of their nationally determined contributions, countries have translated their international commitments into domestic action accordingly.\(^{90}\) The Paris Agreement’s structure design represents a unique opportunity for using voluntary action to bring countries together to


\(^{90}\) For example, the Biden Administration committed to reducing U.S. greenhouse gas emissions 50-52% below 2005 levels in 2030 under the Paris Agreement. The Biden Administration has passed the Inflation Reduction Act in 2022 and other federal laws to spur clean energy development. See Executive Order on Tackling the Climate Crisis at Home and Abroad, Exec. Order No.14008 (Jan.27, 2021), 86 FR 7619. In 2020, Chinese President Xi declared that the country aims to have CO2 emissions peak before 2030 and achieve carbon neutrality by 2060. Later, the central government issued a series of administrative documents to guide the country to achieve the goals, such as the Working Guidance for Carbon Dioxide Peaking and Carbon Neutrality in Full and Faithful Implementation of the New Development Philosophy. See generally Zhonghua Renmin Gongheguo Shentaihuanjing Bu (中华人民共和国生态环境部)[the Ministry of Ecology and Environment], Zhongguo Yingdui Qihoubianhua de Zhengce yu Xingdong 2022 Niandu Baogao (中国应对气候变化的政策与行动 2022 年度报告)(CHINA'S POLICIES AND ACTIONS FOR ADDRESSING CLIMATE CHANGE (ANNUAL REPORT OF THE YEAR 2022)), (Oct. 2022), available at https://www.mee.gov.cn/ywgz/ydqhbh/syqhbh/202210/W0202210275551216559294.pdf (last visited Nov. 13, 2023).
tackle the challenge in the context of political gridlocks over the years since the failure of the Kyoto Protocol.\textsuperscript{91} The application of voluntary action in the Paris Agreement has sparked interest in voluntary programs again.\textsuperscript{92}

However, much of such research tends to be dominated by either econometric studies or case studies. Systematic reviews of voluntary schemes, such as comparisons between VEPs developed by different social actors, are still lacking. Noted that businesses, CSOs and governments utilize VEPs in practice, yet the legal scholars primarily focused on the VEPs are run by governments. Besides, existing literature

\textsuperscript{91} According to a synthesis report for the first Global Stocktake released by the United Nations Framework Convention on Climate Change in September 2023, action taken by countries under the Paris Agreement is not adequate. Much more ambition mitigation targets in nationally determined contributions and action to implement domestic mitigation measures are required to reduce global greenhouse gas emissions by 43\% by 2030 and further by 60\% by 2035 compared with 2019 levels and reach net zero CO2 emissions by 2050 globally. See Secretariat of the United Nations Framework Convention on Climate Change, \textit{Technical Dialogue of the First Global Stocktake Synthesis Report by the Co-Facilitators on the Technical Dialogue}, FCCC/SB/2023/9, (Sep. 2023), at 4-5, available at https://unfccc.int/sites/default/files/resource/sb2023_09E.pdf (last visited Dec.11, 2023).

focuses on the business sector as participants, which is one of the targeted groups in governmental VEPs.

Also, the research about voluntary action in developing countries is dispersed and limited, not to mention to explore the similarities and differences between applying voluntary schemes in different societal settings. Prakash and Potoski think that further research should explore voluntary programs from the following aspects: (1) how national-level institutions, politics, and culture bear upon voluntary programs’ efficacy; (2) to study voluntary programs’ emergence in the context of varying risk preferences across countries, and (3) to explore voluntary programs’ social welfare implications.

More importantly, existing research has not fully discussed the relationship between voluntary action and mandatory requirements, and in what conditions voluntary programs may trigger legal responsibilities. Legal academics tend to consider VEPs as an alternative to mandatory approaches and thus have been using direct environmental results as the primary criteria to evaluate the effectiveness of VEPs. Nevertheless, the increasing number of lawsuits related to climate change indicate that voluntary programs


94 Prakash & Potoski, supra note 59 at 133-134.
could result in unexpected legal responsibilities. It is time to rethink and reposition the role that VEPs play in environmental governance.

1.2 Revisit Voluntary Environmental Programs with the Program-Organizer-Focused Perspective

The information-based and collaboration era provides room and possibilities for the thriving growth of VEPs organized by different social actors.

While existing research primarily focuses on government organized VEPs, CSOs establish various voluntary programs that cover a wide range of topics, from certification programs, green label schemes, to reporting programs. For example, the Rainforest Alliance, an international non-profit organization, uses a certified seal to promote products or ingredients produced using methods that support forest protection, climate issues, human rights and rural livelihood.

Some VEPs run by CSOs are more in-depth than those set up by governments. For example, the U.S. Securities Exchange Commission (SEC) issued its Interpretive Guidance on climate disclosure (“the 2010 Climate Guidance”) in February 2010. The 2010 Climate Guidance does not create new legal requirements or modify existing ones

95 *Infra* Part 2.4.
but is intended to clarify certain existing disclosure rules that may require a company to disclose any corporate decisions or legal developments related to climate change that may impact its business. In other words, the 2010 Climate Guidance “encourages” publicly listed companies to disclose the above information related to climate change on a voluntary basis. According to the U.S. SEC, “[a]lthough some information relating to greenhouse gas emissions and climate change is disclosed in SEC filings, much more information is publicly available outside of public company disclosure documents filed with the SEC as a result of voluntary disclosure initiatives [...]”\(^98\) such as the Carbon Disclosure Project (CDP) and the Global Reporting Initiative (GRI). As of December 2023, over 23,000 companies reported their climate change information through the CDP regarding carbon emissions, climate-related risks, and opportunities to positively influence climate change, water security and deforestation.\(^99\) Similarly, GRI developed widely used comprehensive sustainability reporting standards, with 63% of the largest 100 companies (N100), and 75% of the Global Fortune 250 (G250) reported applying the GRI reporting framework.\(^100\)

Meanwhile, businesses make voluntary commitments to be materialized through their corporate social responsibility (CSR) initiatives motivated by their leadership’s

\(^98\) Id. at 8.


values, economic performance, and stakeholder pressure.\textsuperscript{101} These CSR initiatives not only benefit the committed companies, but also pose impacts to their stakeholders and even result in the establishment of new CSOs dedicated to social and environmental missions.\textsuperscript{102}

Businesses, CSOs and governments may create VEPs that focus on similar or different aspects, and certain social actors have the capacity to craft comprehensive standards and frameworks widely adopted than others. These observations have triggered several questions: (1) among businesses, CSOs and governments, whose VEPs are more effective? And why? (2) how do key players interact and influence each other in various types of VEPs organized by different social actors? (3) what is the relationship between VEPs organized by different social actors? (4) what is the relationship between VEPs and future legislation? To answer these questions, systematically analyzing VEPs divided by program organizer is necessary.

As shown in author’s Table 1.1., a typical VEP’s key players include (1) program organizer(s), the social actor that develops and hosts the VEP; (2) program’s targeted group(s)/participant(s), the social actor that program organizer targets to manage through the VEP, and (3) program supervisor(s), the social actor that monitors the VEP’s implementation. It is possible that one social actor can undertake all three roles, such as the VEPs organized by companies.

\textsuperscript{101} \textit{Infra} Part 2.2.
\textsuperscript{102} \textit{Infra} Chapters 2 and 3.
<table>
<thead>
<tr>
<th>VEP Types by Program Organizer</th>
<th>Program Organizer(s)</th>
<th>Program’s Targeted Group(s)/Participant(s)</th>
<th>Program Supervisor(s)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unilateral commitments/CSR initiatives organized by individual firms</td>
<td>Company</td>
<td>Company</td>
<td>Company</td>
</tr>
<tr>
<td>VEPs organized by governments</td>
<td>Government</td>
<td>Companies, governments at the lower level, CSOs and individuals</td>
<td>Government</td>
</tr>
<tr>
<td>VEPs organized by civil society organizations (CSOs)</td>
<td>CSO</td>
<td>Companies, governments, and individuals</td>
<td>CSO</td>
</tr>
</tbody>
</table>

* Note: Program Supervisors can multiple social sectors as indirect supervisors depending on legal requirements of information disclosure.

**Table 1.1 Key Players in VEPs**

A VEP includes two layers of monitoring system. The first layer is direct monitoring, which is the part of a VEP designed to be implemented by program organizer(s)/supervisor(s), as seen in Table 1.1. For example, in a VEP organized by the government, the government usually acts as the role of program organizer and supervisor. The second layer is indirect monitoring, which is not a designed program supervision but is based on information disclosure and sharing by the VEP’s program organizer and participants. In this context, indirect program supervisors can include multiple stakeholders.

This thesis defines VEPs as a term to collectively include environmental initiatives and projects that are designed, implemented and monitored by a social actor with aims to encourage individuals, organizations and(or) various levels of government to reach specific environmental goals or standards beyond legal requirements. Furthermore,
this thesis defines voluntary approaches as procedural forms used in VEPs to engage participants.\footnote{Infra Chapter 4.}

The program-organizer-focused approach has advantages to measure VEPs’ authenticity and effectiveness. First, it considers different VEP organizers’ motivations. The author is aware that the level of willingness to develop VEPs may vary by organizer in practice and the establishment of VEPs does not imply that such programs will be implemented properly. Nevertheless, organizers’ strong motivation indicates genuine action may follow. Second, the program-organizer-centered approach prioritizes the importance and mutual impacts of the key players’ interactions instead of the direct environmental results of the VEP performance. Therefore, this analytical approach avoids the concerns of program data availability, yet still enables the author to closely examine, reveal and compare features of VEPs developed by businesses, CSOs and governments. Third, focusing on VEP organizers can track the development paths of these programs that are organized by one social actor converted to the other (e.g.: CSR initiatives to CSO-organized programs and CSO-organized programs to government initiatives). The program-organizer-centered angle also makes it feasible to compare VEPs with various designs and procedures in different societal settings under the same baseline, since all VEPs include the three key players.

To fill the gap of lacking a comparative perspective to examine how different societal settings may affect the effectiveness of VEPs and their path to becoming law, the
author specifically focuses on VEPs in the U.S. and China. Firstly, some states and cities in the U.S. have used voluntary actions to tackle the climate crisis when the relevant federal agenda was absent.104 Also, more and more businesses are voluntarily committing to reduce their carbon footprints.105 These actions indicate that voluntary schemes could be a way to make positive impacts from bottom to top. Secondly, voluntary schemes have become popular in China in recent years while there is little research on this subject. It is crucial to review the development status of Chinese VEPs and such research may serve as a comparison baseline for future work. Thirdly, both the U.S. and China’s environmental management are in the research spotlight, plus the two countries have played important roles in climate policy development at the international level. Therefore, it is meaningful to understand how social actors apply VEPs in these two countries.

The following chapters explore incentives for companies, CSOs and government to develop VEPs in the U.S. and China, uses a proposed unified framework to evaluate VEPs’ authenticity and effectiveness, as well as existing laws in the U.S. and China that can push different VEP organizers to develop, implement and monitor their voluntary programs:

- Unilateral commitments by individual firms (Chapter 2)
- Voluntary environmental programs by civil society organizations (Chapter 3)


105 There are lots of press releases in the U.S. about companies setting goal voluntarily to reduce carbon emissions.
Voluntary environmental programs organized by government (Chapter 4)

At the end of each chapter, it identifies the conditions that determine each type of VEPs translate into future legislation in the U.S. and China. Furthermore, each chapter highlights the insufficiencies in existing law that preclude the establishment of an effective multi-actor scheme to hold VEP participants accountable for their promises.

Chapter 5 is the final chapter that compares three types of VEPs organized by different social actors and summarizes the features of VEPs’ conversion paths. Also, Chapter 5 finds remarkable similarity of VEP developments in the U.S. and China despite the difference in their governmental systems. Chapter 5 further concludes the suggestions that can further collaboration between businesses, CSOs and government through VEP development and implementation in both countries.

1.3 The Theoretical Basis of Voluntary Environmental Programs

As a flexible way to alleviate the burdens of governmental environmental protection, VEPs were invented not by academics but by practitioners from real-life practice. As a result, there is no ready-to-use specific theory to understand their very nature, identify their main types amongst a wide variety, or evaluate their effects on social welfare. It sparks scholars’ interest to understand voluntary schemes through different theories. Most existing research uses economic concepts and instruments to

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106 ORG. ECON. COOP. & DEV., supra note 64, at 9.
107 Id. at 8.
justify the nature of VEPs, including cost-benefit analysis and the public good theory. However, these theories are based on a prerequisite that human beings are economically rational actors who can choose rationally according to their self-interests (known as the concept of “economic man”). In reality, many of us are social beings affected by social values, short-term interests, and many other factors. Therefore, it is doubtful that pure economic analysis would be the ideal way to understand human behaviors.

In what follows, the author introduces behavioral theories of self-governance, business ethics and nudging to understand how a VEP’s key players influence each other’s behaviors. The three theories provide a way to maximize the advantages of VEPs. Self-governance theory helps understand the theoretical origin and nature of VEPs developed by various social actors, and participants’ motivation to commit to obligations beyond legal requirements together with the theory of business ethics. The nudge theory provides ideas to engage key players when designing VEPs.

1.3.1 Self-Governance Theory

Self-governance is about social actors operating in diverse and complex dynamic circumstances, using the resources available to them in trying to solve collective action

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and coordination problems.\footnote{Paul Dragos Aligica, Public Entrepreneurship, Citizenship and Self Governance 3 (2019).} The concept of a self-governing community or organization has the following characteristics:\footnote{See Colin Bird, The Possibility of Self-Government, The Am. Pol. Sci. Rev., Vol. 94, No. 3, 2000, 563-577, at 563-564.} (1) an organization is operated and managed exclusively by its elected participants, (2) an organization usually makes decisions that reflect its members’ collective will, and the organization must have consensus on procedures for determining or verifying the decisions reflected in the common will shared by the group, and (3) the organization usually is driven by its internal motivation to take action for common good. Since the third element does not change the fact that the group is self-governing, Bird argued that the first two are mandatory characteristics and that the third feature is optional.\footnote{Id.} Based on Bird’s argument, a self-governing organization or community has capacities to express and implement its internal collective will, which can be for good or ill.

Ostrom suggested that self-governing organizations can be an alternative to resource management and conservation.\footnote{See generally Elinor Ostrom, Governing the Commons-The Evolution of Institutions for Collective Action (1990), available at https://wtf.tw/ref/ostrom_1990.pdf} She found that the use of exhaustible resources by groups of people (e.g. communities, cooperatives, trusts, trade unions) can be rational and prevent depletion of the resources without either state intervention or
markets with private property. Ostrom thought it was necessary to draw a distinction between “organization” and “institution” when discussing self-governance. An organization is “a set of institutional arrangements and participants who have a common set of goals and purposes, and who must interact across multiple action situations at different levels of activity.” The term includes governments, businesses, various CSOs, social networks and even families. An institution is defined “as a widely understood rule, norm, or strategy that creates incentives for behavior in repetitive situations,” such as “a law, policy, or procedure, or they may emerge informally as norms, standard operating practices, or habits.” Essentially, institutions are mechanisms for adjusting behavior in a situation that requires coordination among two or more groups of individuals.

An effective self-governing organization relies on a supply of institution (rules to manage the organization), credible commitments made by members (to follow the rules) and mutual monitoring within the organization. According to Ostrom, institutional

115 Id.
116 Id.
117 Id.
118 Id.
119 See generally Ostrom, supra note 112.
supply relates to the independence of an organization, and would be reflected in the
development and operation of the organization.\textsuperscript{120} Members can be expected to make
credible commitments when the organization’s rules meet certain criteria.\textsuperscript{121} Also, members would stick to their commitments if (1) most similarly situated individuals adopt the same commitment, and (2) the long-term expected collective benefits to be achieved by following the commitment are greater than those following individuals’ short-term and self-centered strategies.\textsuperscript{122} Mutual monitoring encourages rule compliance by demonstrating that others are following the rules.\textsuperscript{123}

From this perspective, Ostrom’s observation matched the path of environmental law development—state intervention implies the common and control regulations and market means refer to economic incentives—information circulation between members makes self-governance possible. Ostrom’s self-governance theory explains how social actors can self-manage within an organization, why they are willing to be constrained (motivation for self-management), and why self-management can be effective (establishing criteria for developing the rules resulted in compliance and enables mutual monitoring).

\textsuperscript{120} Id.
\textsuperscript{121} The design principles summarized by Ostrom are as follows: (1) define a set of appropriators who are authorized to use a common-pool resource (CPR); (2) the rule relate to the specific attributes of the CPR and the community of appropriators using the CPR, (3) rules are designed, at least in part, by local appropriators, (4) rules are monitored by individuals accountable to local appropriators, and (5) rules are sanctioned using graduated punishments. \textit{Id.} at 185-186.
\textsuperscript{122} Id. at 186.
\textsuperscript{123} Id. at 187.
Self-governance theory emphasizes the importance of non-governmental social actors and their collaborations in environmental governance. Derived from self-governance, Ostrom’s polycentric theory shows that many centers of decision-making are formally independent of each other. Decision-makers who are in competitive relationships can enter various contractual and cooperative undertakings or have recourse to central mechanisms to resolve conflicts. That is to say, self-governing organizations can collaborate with each other.

VEPs can be viewed as a form of self-governance, extending Ostrom’s definitions of organizations and institutions. To ensure participants of a VEP take genuine action to meet their “commitments” that are developed based on the goal of the VEPs they join, the organization (as the VEP organizer) establishes rules sheltered under a VEP for its members, develop incentives to motivate participants to commit to VEP rules (institutions) and introduce valid monitoring systems to govern the VEP.

1.3.2 Business Ethics

Governments may regulate businesses to reduce pollution and conserve natural resources, and social organizations generally aim to push companies to go beyond legal requirements to conduct responsible and sustainable practices. Companies’ pivotal role in VEP success raises the question of broader responsibilities beyond profit-making.

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125 Id.
According to Friedman, a company has only one will and responsibility — “to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game.” Furthermore, Friedman thinks CSR is based on individual (corporate executives or business owners) ethics and should not be companies’ mission. Friedman’s doctrine aligns with the concept of “economic man” illustrated above. However, Friedman failed to see that companies rely on and are only a part of society.

Communitarianism is a social philosophy that human identities are largely shaped by different kinds of constitutive communities (or social relations). This idea emphasizes the importance of society in articulating the good. The notion of business-as-community under communitarianism reminds us that “human nature is communal.” Individuals’ moral identity is formed through society, and businesses are human institutions, therefore, individuals’ moral identity would be reflected in business management and decisions, contributing to the company’s will and corporate actions. Furthermore, since human beings are a part of nature, and nature does, at least in part,

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127 Id.
131 Id.
determine what we do and how we do it, then businesses “must strike a balance between values of economizing, ordering, and ecologizing.”\(^\text{132}\) That means businesses “should include a balance between profitability and sustainability.”\(^\text{133}\) To the contrary of Friedman’s views, taking other stakeholders, the society and the nature into consideration is to protect a company’s self-interest.

The World Economic Forum released a set of business management principles in the first Davos Manifesto in 1973. It says that “[t]he purpose of professional [corporate] management is to serve clients, shareholders, workers and employees, as well as societies, and to harmonize the different interests of the stakeholders.”\(^\text{134}\) To achieve the purpose it stated, “profitability is the necessary means to enable the management to serve its clients, shareholders, employees, and society”.\(^\text{135}\) However, the manifesto did not mention companies’ responsibility to the environment.\(^\text{136}\) Plus, the manifesto still positioned companies as units that make profits and the obligations they have to the society were to “pay appropriate taxes to the community” and “make its own knowledge and experience available to the community.”\(^\text{137}\) The manifesto seemed to make up for the major deficiencies of Friedman’s views, but did not go beyond his opinions on profitability was a company’s only goal.

\(^{132}\) Id. at 268-269.
\(^{133}\) Id. at 275-276.
\(^{135}\) Id.
\(^{136}\) Id.
\(^{137}\) Id.
Meanwhile, individuals’ and companies’ environmental awareness has been increasing, and the former posed an impact on the latter as projected in the theory of communitarianism. Consumers are looking for more environmental accountability from companies, and some are willing to pay extra for more sustainable products. 

Accordingly, environmental considerations have become a more serious talking point among company decision-makers since 2016; and environmental goals have increased and have become more ambitious as companies build upon the success of their earlier environmental targets. Consumer views can influence a company’s collective will over time, as individual morality increases under communitarianism.

To reflect the changes, in the new Davos Manifesto released in late 2019, for the first time ever, it explicitly states that “[a] company is more than an economic unit generating wealth. It fulfills human and societal aspirations as part of the broader social

140 Study shows that our societies have become progressively less prudish and judgmental. Individuals have become more accepting of others, rational, irreligious, and scientific in how we approach matters of right and wrong. The decades since 1980 can be seen as a period when moral concerns experienced a revival. Although the research primarily used English-language books as raw data, it included a limited number of Chinese-language books. Even so, this research pointed to some important cultural transformations across different cultures. See Nick Haslam, Melanie J. McGrath & Melissa A. Wheeler, Changing morals: we’re more compassionate than 100 years ago, but more judgmental too, THE CONVERSATION, (March 4, 2019), 10.05pm EST, https://theconversation.com/changing-morals-were-more-compassionate-than-100-years-ago-but-more-judgmental-too-112504 (last visited Jan. 13, 2024).
system. Performance must be measured not only on the return to shareholders, but also on how it achieves its environmental, social, and good governance objectives. ”

Compared to the manifesto issued in 1973, the new version recognized that companies are one key social actor in society, and they bear responsibilities to the social system and the environment. More importantly, profitability shall not be the only standard to measure a company’s performance; and businesses’ will shall no longer maximize shareholder profits above all else. In other words, businesses ethics incorporated in companies’ daily operation and management shall be the new norm.

Paine made a distinction between compliance and ethics management and stated the importance of applying ethics management in corporate management. 142 Ethics management involves the systematic, coherent, and iterative determination of what the ethical criteria of an organization should be, and the development, implementation, and monitoring of the interventions to meet these criteria. 143 In this context, corporate ethical leadership should be “centered on values, moral decision-making, societal wellbeing,

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142 Compliance management means the goal of the corporate programs designed by corporate counsel is to prevent, detect, and punish legal violations. While ethics management is usually related to integrity-based programs, which go beyond mere legal requirements and promote an ethical context that supports exemplary behavior. See Lynn S. Paine, Managing for Organizational Integrity, Harv. Bus. Rev. (1994), available at https://hbr.org/1994/03/managing-for-organizational-integrity (last visited Nov. 20, 2023)

stakeholder interests and an overall concern for others” while making profits. Business ethics could influence business partners and competitors to engage in environmentally-friendly and sustainable practices.

The theory of business ethics provides a foundation to review companies’ behaviors when developing or joining VEPs to fulfill their moral obligations on environmental protection.

1.3.3 Nudge Theory

A nudge is any aspect of the choice architecture that alters people’s behavior in a predictable way without forbidding any options or significantly changing their economic incentives. It is a concept developed by Thaler and Sunstein that is attributed to behavioral economics, political sciences and cognitive psychology.

Hundreds of studies confirm that human forecasts and decision-making are flawed and biased, Thaler and Sunstein believe that most people cannot think or act “unfailingly well” like the concept of economic man “within the textbook picture of human beings offered by economists”. In real life, “people make good choices in contexts in which

144 See id.
147 Thaler & Sunstein, supra note 145, at 6-7.
they have experience, good information and prompt feedback.”\textsuperscript{148} However, people do “less well in contexts in which they are inexperienced and poorly informed, and in which feedback is slow or infrequent.”\textsuperscript{149} Thaler and Sunstein noticed that “small and apparently insignificant details can have major impacts on people’s behaviors”.\textsuperscript{150} The nudge theory implies that individuals’ choices are subjective and can be influenced and guided under a delicate system of choice architecture.

To apply the nudge theory effectively, Thaler and Sunstein further summarized the following six principles of good choice architecture to create helpful nudging:\textsuperscript{151}

- **Incentives** - the classic cost/benefit or loss/gain of choosing one thing over another. Good choice architects can take steps to direct people’s attention to incentives and prompt them to make good choices.

- **Understand mappings** - A sound system of choice architecture helps people improve their ability to map and hence to select options that will make them better off. One way to achieve this is to make the information about various options more comprehensible and understandable.

- **Defaults** - A well-designed choice architecture should set up a default option that comes with some implicit or explicit suggestion that it represents the normal or even the recommended course of action. This concept is based on the

\textsuperscript{148} Id.
\textsuperscript{149} Id. at 9.
\textsuperscript{150} Id.
\textsuperscript{151} Id. at 83-102.
psychological fact that many people will take whatever option requires the least
effort, or the path of least resistance.

- Give feedback- Well-designed choice architectures tell people when they are
doing well and when they are making or about to make mistakes.

- Expect error- Making errors is human and understandable. A well-designed
system expects its users to make errors and is as forgiving as possible.

- Structure complex choices- As choices become more numerous in reality, good
choice architecture will provide structure to host these options and help people to
learn, and thus will be more likely to influence people’s choice-making.

Recent years have seen nudges go from a novelty to a commonly used tool in the
public sector. ¹⁵² Nudge theory can help solve environmental issues by focusing on
incentives and feedback. ¹⁵³ Proper incentives can help motivate individuals and
businesses to take pro-environmental action, and better information and disclosure is
“[a]n important and highly libertarian step” to enable consumers and other stakeholders
to give feedback. ¹⁵⁴

Carlsson et al. reviewed 39 empirical field studies about applying the nudge
theory to environmental protection, and summarized that cognitive green nudges and

¹⁵² According to a report developed by Deloitte, nudge units have been established in 200
governments worldwide. See BRUCE CHEW ET AL., GOVERNMENT TRENDS 2020 WHAT
ARE THE MOST TRANSFORMATIONAL TRENDS IN GOVERNMENT TODAY? DELOITTE (2020),
¹⁵³ THALER & SUNSTEIN, supra note 145, at 185-198.
¹⁵⁴ Id. at 190-191.
moral green nudges are common types of nudges used in environmental policies.\textsuperscript{155} A green nudge does not aim to correct a “mistake” in decision-making but instead uses people’s biases and moral utility to nudge them away from creating negative externalities.\textsuperscript{156} Cognitive green nudges refer to setting up default options, simplification of information and salience, changes to the physical environment and reminders.\textsuperscript{157} Moral green nudges “make use of people’s social preferences and their desire for status, for a positive self-image and to adhere to social norms.”\textsuperscript{158} According to the research conducted by Carlsson et al., norms can be particularly powerful in unfamiliar situations where decision-makers might look to others to receive cues on how to behave.\textsuperscript{159} From this perspective, the nudge theory would be useful to motivate more businesses to join VEPs like some of their peers.\textsuperscript{160}

Thaler and Sunstein agreed that VEPs are one type of ambitious nudges to businesses to participate in programs that are designed to protect the environment while also making profits.\textsuperscript{161} Through applying the six principles of good choice architecture listed above, a well-designed VEP can educate targeted groups by mapping out good

\begin{flushleft}
\textsuperscript{156} \textit{Id.}
\textsuperscript{157} \textit{Id.} at 9-11.
\textsuperscript{158} \textit{Id.} at 11-17.
\textsuperscript{159} \textit{Id.} at 14.
\textsuperscript{160} Noted that climate deniers or companies that are not in favor of environmental policies will not become VEP participants proactively, unless they are pressured by external stakeholders such as government, CSOs and their competitors. \textit{Infra} Part 2.2.3.
\textsuperscript{161} THALER \& SUNSTEIN, \textit{supra} note 145, at 195-198.
\end{flushleft}
practices, providing incentives to solidify positive environmental behaviors, allowing participants to trial and make errors, establishing program rules that include default standards, and encouraging participants and stakeholders to share information and feedback to reinforce positive actions and assist participants to navigate their decisions.
CHAPTER 2

Unilateral Environmental Commitments by Individual Firms

A business that makes nothing but money is a poor business.

– Henry Ford

As more and more companies pledge to address environmental issues, such as greenhouse gas (GHG) reduction and resource efficiency, corporate environmental commitments come to the spotlight.

Corporate environmental commitments are a type of voluntary approach used to tackle environmental problems. The Organization for Economic Co-Operation and Development (OECD) defines voluntary corporate commitments as “unilateral commitments made by polluters.” These commitments usually have the following features: (1) companies set up environmental improvement programs and communicate to their stakeholders (employees, investors, clients, etc.) about these programs; (2) these programs’ environmental targets are frequently determined by the companies themselves; and (3) these programs’ governance and compliance are most often decided by the companies themselves. Companies may delegate a third party for process monitoring or dispute resolution, but these corporate environmental programs usually operate

162 Henry Ford (1863-1947) was an American industrialist and business magnate.
163 ORG. ECON. COOP. & DEV., supra note 64, at 16.
164 Id.
“independently.”¹⁶⁵ While the OECD used the phrase “unilateral commitments” to describe commitments made by both entire industries and individual companies, this thesis instead uses the phrase “unilateral corporate commitments” to refer to commitments by individual companies.¹⁶⁶ Thus, corporate commitments made through industry-specific environmental programs, non-governmental organizations, or government-organized voluntary programs will not be discussed in this chapter.

By adopting the features listed above, this thesis further defines “unilateral corporate commitment(s)” as one or a set of environmental commitments developed, implemented, and monitored by a company through internal companion programs or action agendas. Prompted by a sense of corporate social responsibilities (CSR), these voluntary corporate commitments aim to reach specific environmental goals or standards beyond legal requirements.

Each business's environmental footprint is unique as a social unit that heavily relies on environmental resources. Even two companies in the same industry may have different environmental footprints due to their locations, suppliers, and management styles. The business sector often has natural advantages to self-manage their environmental impacts effectively and efficiently. Meanwhile, by developing corporate commitments and related implementation agendas, businesses often can promptly respond to environmental issues unaddressed by legislatures.

¹⁶⁵ Id. at 10.
¹⁶⁶ Id. at 16.
However, there are challenges to utilizing unilateral corporate commitments. First, comparing the performance of different corporate commitments in an apples-to-apples way is difficult. Second, considering companies' disclosures are the primary or only source for external parties to obtain information about corporate environmental commitments, the authenticity and credibility of such information may be questionable. Last, monitoring the implementation status of unilateral corporate commitments can be challenging because the quality of information disclosed may vary depending on the company. Because of these obstacles, unilateral corporate commitments have not gained adequate attention among legal academics for further research. Particularly, this author is unaware of any paper suggesting standards to evaluate these business commitments’ authenticity and effectiveness.

To fill these gaps, this chapter aims to explore the potential of unilateral corporate commitments by reviewing the development process and relevant existing laws. In practice, although corporate environmental commitments are primarily developed by company leadership, other stakeholders, such as employees, suppliers, investors, customers, public media, government, and social organizations, may be involved in developing and implementing these commitments to varying degrees. Interactions among these stakeholders can reveal the effectiveness of these environmental commitments and signal the transition of corporate commitments from unilateral and voluntary to regulated.
2.1 Corporate Social Responsibility and Environmental Sustainability

The modern definitional construct of CSR started in the 1950s and 1960s in some western countries, and was then primarily linked to civil rights and other various social movements. Not until the 1980s did the concept of CSR begin to include environmental protection, largely due to the increasing prominence of sustainability internationally. This international advocacy is complemented by practices from individual countries, which helped CSR evolve. After decades of development, CSR is commonly viewed as “a management concept whereby companies integrate social and environmental concerns in their business operations and interactions with their stakeholders.” Many theories have been developed to enrich this concept and make it practicable.

2.1.1 The Triple Bottom Line Theory

One fundamental theory of CSR is the Triple Bottom Line (TBL), first conceived by John Elkington in 1994 as a sustainability framework that balances a company’s social, environmental, and economic impact. This theory demands a company weigh

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168 Id.
170 See JOHN ELKINGTON, THE TRIPLE BOTTOM LINE: DOES IT ALL ADD UP? 1–2 (Adrien Henriques & Julie Richardson eds., 2004) (noting in the first chapter titled, Enter the
its actions on three independent scales: economic sustainability, environmental sustainability, and social sustainability.\textsuperscript{171}

Economic sustainability demands a company’s products or services stay competitive while making profit margins sustainable.\textsuperscript{172} When companies perceive economic capital, they also “need to absorb much wider concepts, such as natural capital and social capital” in the long term.\textsuperscript{173} Environmental sustainability stems from the recognition that natural resources are natural capital and this capital is not infinite. To maintain stability, companies should control the ecological impact of business activities and the range of possible environmental risks associated with a company’s short and long-term costs, such as the environmental impacts of products and the requirements of legal compliance.\textsuperscript{174} Social sustainability involves “human capital, in the form of public health, skills and education,”\textsuperscript{175} and thus requires companies to pay attention to the needs of society to increase the value of human capital. This bottom line often includes “community relations, product safety, training and education initiatives, sponsorship, and charitable donations.”\textsuperscript{176}

\textsuperscript{171} Id. at 9.
\textsuperscript{173} Id. at 75.
\textsuperscript{174} Id. at 79–84.
\textsuperscript{175} Id. at 85.
\textsuperscript{176} Id. at 87–88.
Together with subsequent variants, the TBL concept has been adopted by accountants and reporting consultants. These professionals apply the TBL when they advise multinational corporations to develop CSR strategies. According to the Klynveld Peat Marwick Goerdeler Survey of Corporate Responsibility Reporting 2020, 96% of the world’s largest 250 corporations report on TBL, representing a significant rise from 35% in 1999 when Klynveld Peat Marwick Goerdeler first measured this metric. This shows that more and more companies have embraced the TBL concept in their CSR strategy development and reporting. Furthermore, the TBL concept guides governments in developing regulations to foster CSR awareness. This indicates that “[CSR] has gone from a ‘nice to have’ to a compliance requirement.” The following two sections provide an overview of current CSR legislation in the U.S. and China.

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2.1.2 CSR Legislation in the U.S

Practitioners summarized existing CSR-related regulations (with some overlap) into three categories: (1) disclosure requirements, (2) compliance program requirements, and (3) trade-based regulations.\(^{180}\)

Disclosure requirements oblige companies to discuss whether and how they address a particular issue. For example, in 2010, the U.S. Congress passed the U.S. Conflict Minerals Rule (the Rule), commonly known as § 1502 of the Dodd–Frank Act.\(^{181}\) The Rule requires U.S. publicly listed companies to: check their supply chains for tin, tungsten, tantalum, and gold that originates from the Democratic Republic of Congo or its neighbors; take steps to address any risks they find (including but not limited to minerals sourced from those countries or benefitted armed groups); and to report on their efforts annually to the U.S. SEC.\(^{182}\) The Rule does not prevent companies from sourcing such minerals in these regions, but aims to require companies to conduct due diligence to make sure they are not funding armed groups or human rights abuses.

Companies are required to implement compliance programs to address particular CSR issues. For example, the amended U.S. Federal Acquisition Regulation, promulgated in 2015, aims to significantly strengthen protections against human trafficking in connection with government contracts.\(^{183}\) Under the rule, government

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\(^{180}\) *Id.*


\(^{182}\) 17 C.F.R. §§ 240, 249b.

solicitations and contracts are required to prohibit contractors, contractor employees, subcontractors, and subcontractor employees and their agents, from engaging in human trafficking. This includes trafficking of persons during the contract performance period, using forced labor in the performance of the contract, using misleading or fraudulent practices during the recruitment of employees, or offering of employment and using recruiters that do not comply with local labor laws. 184

Trade-based regulations usually prohibit the importation into the U.S. of goods, wares, articles, and merchandise mined, produced, or manufactured wholly or in part in any foreign country by convict labor, forced labor, or other sanctionable activities listed by the U.S. government. 185


184 Id.
187 Id.
focuses on a broad range of issues, such as: human rights, the rights of indigenous peoples, labor rights, land tenure and property rights, anti-corruption, transparency, and addresses environmental issues “to the extent that they overlap with responsible business conduct.”

Advocate Greg Regaignon points out that the National Action Plan targets only businesses operating overseas, “even though many companies operating in the U.S. have been criticized on issues such as workplace safety, trade union rights, living wage, discrimination, environmental justice, climate change, modern slavery, abuses in private prisons, and internet privacy.”

Overall, the existing laws, regulations, and policies related to CSR in the U.S. mainly pose a burden to companies with international operations and oversea sourcing. These legal obligations include information disclosure and corporate compliance for certain issues, such as human rights and labor. Companies still have wide discretion in designing and developing CSR strategies and programs, particularly regarding environmental issues.

2.1.3 CSR Legislation in China

Compared to the deep-rooted history in the U.S., CSR is a relatively new concept to many companies in China. During the 1990s, multinational corporations entered China

188 Id.
189 Id.
and brought CSR practices with them. Even though CSR was not explicitly stated in the Chinese laws and regulations, some legislation explored the rights and obligations of consumers, laborers, and corporate donors, such as the Law on the Protection of Consumer Rights and Interests (implemented in 1994), Labor Law (1994), and Law on Donations for Public Welfare (1999). These laws provide a glimpse of how the Chinese government and companies understood CSR at that time, which primarily focused on consumer protection and corporate philanthropy. These aspects all belong to social sustainability under the TBL concept.

Later, the international community’s CSR agenda prompted China to study CSR from passive acceptance to active consideration. In 2000, the United Nations launched a voluntary Global Compact for CSR. To streamline responsible business activities worldwide, the Global Compact consists of ten universal principles concerning human rights, labor, environment, and anti-corruption. This Global Compact is not just open for companies to join but also invites academic institutions, cities and municipalities,

191 See KIM In-sun (金仁仙), Zhongguo Qiye Shehui Zeren Zhengce de Fenxi ji Qishi (中国企业社会责任政策的分析及启示) [On the Public Policy Regarding Corporate Social Responsibility in China]. Beijing Shehui Kexue (北京社会科学) [Social Science of Beijing], No.8, at 22–33 (2019) (describing how the Chinese government explicitly stated at a work meeting in 2013 that CSR should be paid attention to in the context of reforming state-owned companies and to encouraged them to undertake social responsibility).


civil society, and public sector organizations to spread CSR principles. This initiative helps promote CSR concepts in both developed and developing countries. As of May 20, 2022, 595 Chinese companies (including small and medium enterprises) had joined the Global Compact, and that number is still increasing.

Joining the World Trade Organization in 2001 further motivated China to follow the international CSR trend. Between 2005 and 2013, the Chinese government started focusing on and emphasizing CSR. For example, Article 5 of the 2005 revised Company Law explicitly stated that companies established and operating in China have to undertake social responsibilities, which is the first time that the concept of CSR appeared in Chinese law. The law declares: “When conducting business operations, a company shall comply with the laws and administrative regulations, social morality, and business morality. It shall act in good faith, accept the supervision of the government and general public, and bear social responsibilities.” From 2014 to present, the Chinese

196 Kim, supra note 191.
197 Id.
government has further strengthened the CSR concept through laws related to social welfare, such as the 2016 Charity Law and the 2017 revised Regulation on the Implementation of the Enterprise Income Tax Law, which nudges companies to participate in philanthropy by offering to reduce their tax burdens.\textsuperscript{199}

Furthermore, the government has guided companies to integrate CSR into environmental law.\textsuperscript{200} For example, the 2014 revised Environmental Protection Law states that companies are encouraged to “achieve further pollution reduction beyond statutory discharge standards” (Article 22) and to “give priority to the introduction of clean energy, adopt process and facilities with higher resource efficiency as well as low pollution discharges, and apply comprehensive waste utilization technologies and waste disposal technologies to reduce pollutant generation” (Article 40).\textsuperscript{201} These provisions also suggest ways for companies to go beyond legal obligations to increase environmental sustainability.

As CSR developed in China, the government enacted legislation and regulation related to CSR disclosure between 2006 and 2017. For example, the Shenzhen Stock Exchange issued Shenzhen Stock Exchange Social Responsibility Instructions to Listed Company Law of the People’s Republic of China has been revised or amended numerous times in the years subsequent to its adoption in 1993).\textsuperscript{199} Kim, supra note 191.

\textsuperscript{200} Id.

Companies (Shenzhen Instruction) in September 2006. The Shenzhen Instruction stated that companies can disclose their CSR reports in their annual reports, and such CSR reports shall at least include: (1) actions the company has taken to address employee protection, environmental pollution, product quality, and its community relationship; (2) whether there is a difference between actual practice and company objectives, and an explanation for any such difference; and (3) measures and a timeline to improve its CSR implementation. In late December 2008, both Shenzhen and Shanghai Stock Exchanges required certain companies to disclose their CSR reports.

Among all aspects of CSR, environmental sustainability—especially disclosing corporate environmental information—is actively becoming one of the key focuses in China. Under Chinese law, corporate environmental disclosure for listed companies can be divided into mandatory and discretionary disclosures. Mandatory disclosures cover:

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202 Shenzhen Zhengquan Jiaoyisuo Shangshi Gongsi Shehui Zeren Zhiyin (深圳证券交易所上市公司社会责任指引) [Shenzhen Stock Exchange Social Responsibility Instructions to Listed Companies] (promulgated by Shenzhen Stock Exchange), ch. 7 (Sept. 25, 2006), http://47.104.82.158/sustainability/reports/guide/internal/20171222/download/%E6%B7%B1%E5%9C%B3%E8%AF%81%E5%88%B8%E4%BA%A4%E6%98%93%E4%B8%8A%E5%B8%82%E5%85%AC%E5%8F%B8%E7%A4%BE%E4%BC%9A%E8%B4%A3%E4%BB%BB%E6%8C%87%E5%BC%95.pdf.

203 Id.

pollutant discharge information; construction and operation of pollution prevention facilities; construction projects’ environmental impact assessments and their administrative approvals; internal contingent responses to environmental emergencies; and environmental self-monitoring frameworks. Companies should explain the reasons for not disclosing the required information.

Listed companies are further encouraged to disclose the following environmentally related contents: environmental compliance, environmental information verification conducted by a third-party (such as rating agencies and indexing service companies), and environmental protection and sustainability contributions. The latest Corporate Information Disclosure and Format for Listed Companies, issued in 2021, further encourages companies to disclose any measures taken to reduce GHG emissions and their performance. Although these disclosures are not mandatory (according to the 2021 revised Measures for the Administration of Information Disclosure by Listed Companies).

206 Id.
207 Id.
208 Gongkai Faxing Zhengquan de Gongsi Xinxi Pilu Neirong yu Geshi Zhunze di’erhao Er’ling’eryinian Xiuding (公开发行证券的公司信息披露内容与格式准则第 2 号-2021 年修订) [Corporate Information Disclosure and Format for Listed Companies (2021 version)], issued by China Securities Regulatory Commission and entered into effect on June 28, 2021, Article 41.
Companies developed by the China Securities Regulatory Commission, companies should ensure the authenticity of such information disclosed in their annual reports.  

Compared to the Chinese law that poses legal requirements to companies of any size to adopt CSR, the U.S. does not require all companies to undertake CSR, but companies are required to establish corporate compliance programs for certain CSR issues. Furthermore, the CSR related laws in the U.S. emphasize social sustainability, while Chinese laws’ development showed that China’s CSR focus has expanded from social sustainability (such as corporate donation and consumer protection) to environmental sustainability. Notably, the Chinese government has highlighted the importance of corporate pollution control and information disclosure. CSR requirements under Chinese law primarily focus on domestic companies, while the U.S. CSR policies concentrate on companies’ performance overseas.

2.2 Motivation for Companies to Adopt CSR Practice and Environmental Commitments

Even though the U.S. and China have different approaches to CSR, figures show that CSR has been increasingly accepted and practiced in both countries. In the U.S., industrial reports showed that an estimated 90% of companies on the S&P 500 index

209 Shangshigongsi Xinzipilu Guanlibanfa (上市公司信息披露管理办法 2021 年修订) [Measures for the Administration of Information Disclosure by Listed Companies (2021 Revision)], first issued on January 30, 2007. This version was revised and adopted at the 3rd 2021 executive meeting of the China Securities Regulatory Commission on March 4, 2021, Article 5.
published a CSR report in 2019, compared to just 20% in 2011.²¹⁰ Meanwhile, scholars found that Chinese companies adopted CSR projects between 2006 and 2013 at increasing rates.²¹¹

The reasons for companies adopting and implementing CSR activities are myriad. Maignan and Ralston identified and summarized three types of motivations: value-driven, performance-driven, and stakeholder-driven.²¹² Each motivation has its distinguishing features. As discussed above, environmental sustainability is one aspect of CSR. Therefore, in the following sections, investigating these different motivations is useful to understand why companies make environmental commitments beyond legal requirements.

2.2.1 Value-Driven CSR

With value-driven motivation, CSR is presented as part of a company’s culture or as an expression of core values.213 A company’s CSR focus and practice is highly related to its leadership and employees’ morals.

According to Hemingway and Maclagan, the personal values of individual managers are one of the factors that influence CSR development.214 Besides the company’s strategic commercial interests, “individual managers can exercise influence [by] initiat[ing] or chang[ing] specific projects in order to address their personal moral concerns.”215 Similarly, Godos-Díez et al. point out the perception of ethics and social commitments of senior management, particularly the Chief Executive Officer, come into play when a company is designing CSR activities.216 Beyond the management level, Lynes and Andrachuk found employees’ perceptions and the corporate culture can be an important decision-making factor of CSR.217 Due to these individuals’ crucial positions at a company and their strong moral identity, the company tends to embrace more in-depth and innovative CSR initiatives.

213 Id. at 505–507.
215 Id.
216 José-Luis Godos-Díez et al., How Important Are CEOs to CSR Practices? An Analysis of the Mediating Effect of the Perceived Role of Ethics and Social Responsibility, J. BUS. ETHICS, No.98, 2011.
For environmental sustainability alone, Gibbs highlighted the concept of “sustainability entrepreneurs” to refer to those entrepreneurs who combine environmental awareness with their business activities, with a goal to shift the basis of economic development towards a more environmentally friendly basis.\(^{218}\) Similarly, the birth of the term “ecopreneurs” represents a group of company leaders who go further by prioritizing the environment over profits whenever practical, and doing the best they can to lessen their impact on the environment.\(^{219}\) In practice, sustainability entrepreneurs and ecopreneurs are at the forefront of leading the way towards “going green.” These individuals who have strong environmental awareness reflect their personal moral values in the businesses they have established and operated.

One well-recognized example of a value-driven company is Patagonia, a U.S. outdoor clothing company founded in 1973, which has been a strong-willed socially and environmentally responsible brand since its beginning. Yvon Chouinard, the founder of Patagonia, is an outdoor enthusiast. Thus, Chouinard embedded his passion and environmental concerns into his business and has advocated for the government and other businesses to do more for environmental causes.\(^{220}\) Under his leadership, the company

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has held onto values defined by its slogans as: “Build the best product” (Quality); “Examine our practices openly and honestly, learn from our mistakes and meet our commitments” (Integrity); “Protect our home planet (Environmentalism); “Be just, equitable and antiracist as a company and in our community” (Justice) and “Do it our way” (Not bound by convention), in its business operation and product development. Although there are no statistics on value-driven companies in the U.S., Patagonia represents a group of companies that prioritize environmental sustainability in their business practices.

By comparison, due to the late start of the environmental movement in China, it takes time for companies to understand CSR and why environmental sustainability matters to them. According to a survey conducted in 2005, 76% of 1,500 surveyed companies heard about the CSR concept, and over a majority of them thought companies’ main social responsibility lies in employee benefits (90%), paying taxes honestly (79%), and corporate philanthropy (69%). Regarding corporate philanthropy, 61% of these companies primarily donated to disaster relief funds, poverty reduction was second
(52%), and only 11% chose to support environmental-related causes.\textsuperscript{223} The results showed that Chinese companies lacked systematic knowledge of CSR. Additionally, climate change, becoming an essential subject of environmental sustainability under CSR, was found to demand education. According to another survey conducted in 2012-2015, managers’ awareness of the cause of climate change, recognition of climate policies, and knowledge of tackling climate change were relatively low.\textsuperscript{224}

Even though some companies with solid business ethics are willing to do more to promote environmental sustainability, these surveys showed that Chinese companies need guidance on how to achieve it. Meanwhile, the Chinese government has been working on filling the knowledge gap via legislation, especially on corporate environmental information disclosure, which resulted in companies embracing environmental sustainability. Therefore, it would be challenging to locate examples of Chinese companies that are driven purely by individual values without governmental influence.

\textsuperscript{223} Id.

\textsuperscript{224} For companies’ climate awareness, see Xu Guangqing & Dong Xiaoqi (许光清, 董小琦), Qiye Qihou Bianhua Yishi Ji Yingdui Cuoshi Diaocha Yanjiu (企业气候变化意识及应对措施调查研究)[The questionnaire survey on climate change awareness and business response to climate change of corporates], Qihou Bianhua Yanjiu Jinzhan (气候变化研究进展)[CLIMATE CHANGE RES.], Vol. 14 No. 4, (Jul. 2018), 429-436. For companies’ environmental awareness, see Li Youhuan (黎友焕), Qiye Shehui Zeren Yanjiu (企业社会责任研究) [Research on Corporate Social Responsibility] (2007) (Doctoral Thesis, China Northwest University), http://cdmd.cnki.com.cn/Article/CDMD-10697-2007129669.htm.
2.2.2 Performance-Driven CSR

Performance-driven CSR introduces CSR as a part of the firm’s economic mission, as an instrument to improve financial performance and competitive position.\(^\text{225}\) Grant Thornton, a leading global accounting and consulting firm, released a report about CSR drivers and found that 67% of 2,500 interviews with business leaders in 34 economies responded that cost management was the key reason for pursuing sustainable practices.\(^\text{226}\) Likewise, Bhimani et al. indicate that companies that adopt and report CSR performance “with a view to saving costs or earning abnormal profits by leveraging an innovation that piques customer interest and raises the demand curve of the concerned firm.”\(^\text{227}\) A study conducted by the Stern Business School of New York University found that “products marketed as sustainable are driving not only the product but also total category/market growth.”\(^\text{228}\) Therefore, companies motivated by performance-driven CSR practices have an incentive to find a balance between pursuing good causes and profits.

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\(^{225}\) See Maignan & Ralston, supra note 212.


It is not difficult to spot performance-driven companies in the U.S., such as Microsoft and Google, which have invested in projects to achieve environmental sustainability while reducing costs. In 2011, Microsoft deployed an energy-smart building solution that reduces energy consumption and operating costs by 6–10% at Microsoft offices worldwide.\(^{229}\) Furthermore, Microsoft has started to phase out fossil fuels used in transportation, data centers, and work campuses as well as support carbon removal projects, to reach carbon negative levels by 2030.\(^{230}\) Microsoft claims that “what is good for the climate will be good for business, and good for companies that are at the cutting edge in addressing carbon issues,” which indicates these environmentally-friendly investments will pay off in the long term.\(^{231}\) Similarly, Google aims to create energy-efficient data centers to accelerate the transition to carbon-free energy. According to a 2019 environmental report, Google has claimed that it has been carbon neutral for over a


\(^{230}\) Brad Smith, Microsoft will be carbon negative by 2030, MICROSOFT: OFF. MICROSOFT BLOG (Jan. 16, 2020), https://blogs.microsoft.com/blog/2020/01/16/microsoft-will-be-carbon-negative-by-2030/.

decade.\textsuperscript{232} In 2018, the company matched 100\% of the electricity consumption of its
global operations with renewable energy for the second consecutive year.\textsuperscript{233} Google is
optimistic that all these measures can help save money in the long term.\textsuperscript{234}

Other than these multinational corporations, more and more small and medium-
sized enterprises (SMEs) in the U.S. view greening their business as an approach to
“improve business performance (via cost reductions and increased sales), which in turn
can generate jobs and income opportunities.”\textsuperscript{235} Furthermore, some SMEs also explicitly
pursue the TBL approach to generate societal and environmental benefits.\textsuperscript{236}

In China, cost-saving is also an essential motivation for companies to achieve
CSR goals beyond the legal requirements. Previously, some Chinese companies equated
CSR to corporate philanthropy and thus deemed CSR practice as a financial burden to
their profits.\textsuperscript{237} However, this attitude has changed in recent years with a deeper
understanding of how environmental sustainability can save costs. Lower environmental
taxes are one example. In 2016, China issued the Environmental Protection Tax Law to

\begin{footnotesize}\begin{itemize}
\item[\textsuperscript{232}] See Google, Environmental Report 2019 14 (2019),
(reporting Google’s advancement in carbon-free energy).
\item[\textsuperscript{233}] Id. at 9.
\item[\textsuperscript{234}] Id.
\item[\textsuperscript{235}] ShASHWAT KOIRALA, ORG. FOR ECON., COOP. AND DEV., SMEs: Key Drivers of Green
\item[\textsuperscript{236}] Id.
\end{itemize}\end{footnotesize}
promote environmental protection and reduce pollution.\textsuperscript{238} By abolishing the previous system of pollutant-discharge fees and establishing a tax that can motivate companies to reduce pollution discharges, this law did not add extra burdens to companies but increased the transparency of administrative management and efficiency of implementation.\textsuperscript{239} Particularly, the Environmental Protection Tax Law includes two major incentives: if taxpayers discharge taxable atmospheric pollutants or water pollutants at a concentration less than 30\% of nationally or locally stipulated pollutant discharge standards, 75\% of the environmental taxes would be reduced; if the concentration rate is less than 50\%, half of the environmental taxes would be deducted.\textsuperscript{240} The two incentives encourage companies to invest in pollutant-reducing activities instead of paying for their pollution, and thus can save money by reducing tax payments in the long term.

Another approach to cost-saving for Chinese companies is to lower production costs. For example, China Communications Construction, a state-owned company, stated

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure1.png}
\caption{Figure 1: Cost-Saving Strategies for Chinese Companies}
\end{figure}

\textsuperscript{239} Lvseshuifa Nengfou Huanjie Shengtaihuanjing Zhiyou (绿色税法”能否缓解生态环境之忧—聚焦环境保护税法) [Can the “Green Tax Law” Alleviate Ecological and Environmental Concerns—Focus on Environmental Protection Tax Law], Xinhua Wang (新华网) [XINHUA NEWS AGENCY] (Dec. 26, 2016), http://www.xinhuanet.com/politics/2016-12/26/c_129419422.htm.
\textsuperscript{240} Supra note 238, Environmental Protection Tax Law of the People's Republic of China.
that upgrading technologies and machines enabled the company to achieve the carbon mitigation goal designated by the government for a specific period and improve resource efficiencies and lower the company’s energy usage. From these examples, the government has played a vital role in leading companies (particularly state-owned) to achieve cost-saving and environmental sustainability together.

The Chinese government has also boosted SMEs’ understanding of environmental protection over the years; more and more SMEs realized that environmental costs are part of their operational costs. Starting in 2009, the Chinese government developed plans to unlock SMEs’ potential to mitigate GHG emissions, including accessing free training and knowledge-sharing platforms. However, recent research reports show that survival

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242 See Guo Ting (郭婷), Huanjing Guizhi Zhutui Zhongxia Qiye Lüsefazhan (环境规制助推中小企业绿色发展) [Environmental Regulations and Governance Boost Small and Medium-Size Enterprises’ Green Development], Zhongguo Huanjing Bao (中国环境报) [CHINA ENVIRONMENT NEWS] (Apr. 1, 2019), http://epaper.cenews.com.cn/html/1/2019-04/01/03B/2019040103B_pdf.pdf (explaining how “enterprises are gradually realizing that environmental costs are part of the production costs of enterprises”).

remains the fundamental objective of many Chinese SMEs. Considering the significant upfront costs of investing in environmental sustainability that SMEs need to cover, few companies are willing to make environmental commitments beyond legal responsibilities.

Similar to value-driven CSR, it is difficult to identify which Chinese companies voluntarily made environmental commitments based on their business judgment only, or results that are advocated by the government (or law), since the government has been such a strong influence to guide companies of any size to understand that cost-saving and environmental sustainability go hand-in-hand.

2.2.3 Stakeholder-Driven CSR

Stakeholder-driven CSR usually presents CSR as a response to the pressure and scrutiny of one or more stakeholder groups. Carroll pointed out that “the term ‘stakeholder’ constitutes a play on the word ‘stockholder,’ and is intended to, more appropriately, describe which groups or persons have a stake, a claim, or an interest in the operations and decisions of the firm.” Carroll summarized nine stakeholder groups that matter to a company: owners, customers, employees, communities, competitors,

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245 Maignan & Ralston, supra note 21, at 505.
suppliers, social groups, the public, and others.\textsuperscript{247} Carroll further commented that the government is also an important stakeholder because “[b]usinesses are expected and required to comply with these laws and regulations as a condition of operating.”\textsuperscript{248} Among these stakeholders, company owners and employees can be categorized as internal direct stakeholder groups for the development and implementation of CSR programs. The rest of the stakeholder groups can be viewed as the external forces that motivate companies and will be the main focus of the stakeholder-driven CSR approach. Both internal and external forces are important to push companies to make bold environmental commitments.

In the U.S., stakeholder pressures related to CSR practices are primarily from investors, consumers, and social groups. Investment firms have started pressuring companies to disclose their environmental risks.\textsuperscript{249} In July 2020, New York-headquartered BlackRock, the world’s largest asset manager, pointed out that 244 of its invested companies were not making enough progress towards addressing climate risk, and told these companies that they could face consequences at next year’s round of

\textsuperscript{247} Id. at 44.
\textsuperscript{249} See Jorden Davidson, \textit{Investors Want Companies to Disclose Environmental Risk}, ECOWATCH (Jun. 11, 2020, 5:08 AM), https://www.ecowatch.com/investors-companies-environmental-risk-disclosure-2646169116.html?rebelltitem=1#rebelltitem1 (explaining how Forbes reports that global companies worth more than ten trillion are urging companies to disclose their environmental impacts to investors.).
shareholder meetings if they did not improve.250 In May 2021, BlackRock joined several other investment companies in successfully electing three environmental activists to the Board of Directors of ExxonMobil over the objection of management.251 It is worth mentioning that investors (investment firms) may back off their pro-environmental strategies because of the political opposition within the government.252

Increasingly, customers serve as another force to push companies to develop environmentally friendly products. In a 2020 consumer survey, nearly 70% of consumers in the U.S. and Canada thought it was important for a brand to be sustainable or eco-friendly.253

Meanwhile, major social groups (sometimes including youth groups) also urge companies to foster climate policy and advance the corporate sustainability agenda, often

252 See Bob, Rubin, BlackRock and Vanguard were once ESG’s biggest proponents–now they seem to be reversing course, FORTUNE (Sep. 13, 2023 at 5:52 AM EDT), https://fortune.com/2023/09/13/blackrock-vanguard-were-once-esg-reversing-course-finance-bob-rubin/ (describing BlackRock, Vanguard, and similar firms are shifting their attention toward traditional financial performance metrics instead of the environmental, social and governance (ESG) investing strategies due to the political opposition from conservative objectors). Also see supra Part 2.4.2.
bringing lawsuits to compel them to do so. For example, seven groups including Greenpeace and Friends of the Earth Netherlands filed a lawsuit in 2019 to force the Royal Dutch Shell company to change its strategies regarding climate mitigation. The Dutch court later ordered Shell to establish a much stronger fossil fuel reduction program than previously undertaken.

In China, companies’ external CSR pressures are mainly from the government, public media, and consumers. Most of the Chinese companies that made CSR commitments are either state-owned companies that resonate with the guidance issued by the State-Owned Assets Supervision and Administration Commission of the State Council, or private businesses that have made environmental commitments for the persuasions that involved the local government.


Id.

Also, consumers’ awareness of environmental factors and sustainability has increased dramatically in China over the past decade. According to a global consumer survey conducted in 2014, 73% of Chinese respondents (7th highest among the 23 countries studied) say that they are plagued by guilt when they indulge in an environmentally unfriendly manner, and 80% of them desire brands and companies to be environmentally responsible. The organizer of the report also pointed out that the results presented in this survey are similar to most existing research studies of Chinese consumers.

Last, the Chinese government encourages public media to expose companies’ negative environmental performance. Some scholars found that the greater the amount of media coverage, the more the environmental information of publicly listed companies

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260 Id.

would become available; but, such coverage does not necessarily improve the overall quality of corporate environmental disclosure.\textsuperscript{262}

Big companies in the U.S. and state-owned companies in China started to pressure their suppliers to meet their updated requirements of environmental sustainability in recent years. For example, Walmart urged its network of suppliers to disclose their sustainability performance since 2007.\textsuperscript{263} Due to the fact that most GHG emissions are generated from product supply chains, Walmart created the Project Gigaton initiative to require all direct suppliers to set emissions-reduction targets in one or more of six key areas (energy, waste, packaging, nature, transportation or product use).\textsuperscript{264} According to the Walmart’s Environmental, Social and Governance Report, Walmart’s suppliers reported that they avoided 136 million metric tons of emissions in 2019 alone.\textsuperscript{265} From

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\textsuperscript{264} Project Gigaton, WALMART SUSTAINABILITY HUB, https://www.walmart sustainabilityhub.com/climate/project-gigaton (last visited Apr. 6, 2023); Project Gigaton™ FAQs, WALMART SUSTAINABILITY HUB, https://www.walmart sustainabilityhub.com/climate/project-gigaton/faqs (last visited Apr. 6, 2023).
\end{flushleft}
suppliers’ perspective, their business clients are the main stakeholder group to oppose the pressure of environmental sustainability.

Through reviewing the three types of motivations for CSR practices, the following trends are clear. First, value-driven companies rely highly on the company leadership’s individual morals and concerns. If such morals can be integrated into the company culture, this type of company would be able to maintain its high standards of environmental protection and sustainability. Second, performance-driven companies demand CSR knowledge and examples to reaffirm that implementing environmental sustainability can lead to cost-savings and new market opportunities. Regardless, they seek professional help or utilize resources provided by the government. Third, stakeholder-driven companies’ CSR practices would work well when the pressure is from the right stakeholder groups.

Between the two countries, the primary motivation for Chinese companies to undertake CSR is stakeholder-driven. In contrast, U.S. companies’ motivations are more evenly distributed among the three types. One reason for the difference is the environmental movement and modern CSR development started much earlier in the U.S. Another difference is the social expectations for companies in the two countries.

In the U.S., businesses have played a significant role in developing cities and local communities. Therefore, businesses have been assigned substantial responsibility for the moral and physical characteristics of the communities in which those businesses
have invested. U.S. businesses’ involvement has created the expectation that companies will play a leadership role in the communities where they operate. In this historical context, CSR has become an important concept that many U.S. companies cannot neglect. Regardless of the source of motivation (value-, performance-, or stakeholder-driven), businesses must take proactive action to deal with CSR issues, including environmental sustainability.

In China, the government, as the owner of state-owned companies and the legislator, holds a dominant position in society. The government undertakes the responsibility of introducing new concepts such as CSR and sustainability through legislative actions. Companies are used to receiving guidance from the government or following legal requirements instead of coming up with more aggressive environmental sustainability goals on their own. Thus, most companies believe the government should undertake primary responsibilities on environmental sustainability, specifically with climate change. Cultivating value- and performance-driven companies with this mindset takes time in the Chinese market.

266 Maignan & Ralston, supra note 212, at 510.
267 Id.
268 Zhang Yiming (张一鸣), Zhuanfang: Zhongguoqiye Jidaizhudong Yongbao Ditianzhuanxing (专访：中国企业亟待主动拥抱低碳转型) [Exclusive: Chinese Enterprises Need to Embrace Low Carbon Transition], Zhongguo Jingji Xinwen Wang (中国经济新闻网)[CHINA ECONOMIC TIMES] (June 8, 2021).
2.3 Proposed Indicators to Measure Unilateral Corporate Environmental Commitments’ Effectiveness

Because the business sector manages vast amounts of natural resources, raw materials, and financial resources as part of business operations, it often has the capacity to contribute to and influence environmental protection and sustainable development for whole societies. If companies’ environmental commitments are as effective and accountable as they claim, that is a win-win for both the companies and society. These commitments would help companies conduct business in a greener way and potentially increase their brand values through positive public images and operational cost-savings.

However, since corporate environmental commitments are made voluntarily, these promises do not have as profound an impact as they would if there were proper monitoring and measurement. Eavis and Krauss found that many big U.S. companies have not set concrete targets for reducing GHG emissions and some have weak goals, despite saying publicly they want to reduce their GHG impact on climate change.\(^{269}\) Thus, assuring companies fulfil their promises accurately is critical.

The lifecycle of a typical unilateral-corporate-environmental commitment includes three stages: commitment design, implementation, and monitoring. The way that companies go through this lifecycle may vary depending on the structure and available

resources of the businesses, but the overall implementation process is similar. Maon et al. summarized the following nine general steps for existing frameworks on CSR design and implementation, which provides a glimpse of how the agendas related to environmental sustainability are developed and implemented within a company:

Step 1: Raising CSR awareness inside the organization.

Step 2: Assessing corporate purpose in its societal context.

Step 3: Establishing a vision and a working definition for CSR.

Step 4: Assessing current CSR status.

Step 5: Developing a CSR integrated strategic plan.

Step 6: Implementing the CSR integrated strategic plan.

Step 7: Communication about CSR commitments and performance.

Step 8: Evaluating CSR integrated strategies and communication.

Step 9: Institutionalizing CSR.\(^{270}\)

Steps 1–5 are included in the commitment design phase. Step 6 is about implementation, and the rest falls under the monitoring phase. If the commitment is implemented through an ad-hoc program, Step 9 advises stabilizing the efforts by establishing a long-term structure. This discussion does not include Step 9 because environmental commitments sit in the company's CSR framework.

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The author identifies four key aspects that are fundamental to this process and the effectiveness of these voluntary commitments are identified during the lifecycle of corporate environmental commitments. The aspects are the company leadership's willingness, environmental commitment content, stakeholder participation, and the quality of corporate information disclosure.

A company and its stakeholders can develop a checklist incorporating these four aspects to evaluate the company’s commitment(s). The author lists some questions associated with each aspect (see Table 2.1). The more questions answered “yes,” the more effective the company's commitments would be.

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**Proposed Framework For Evaluating A Company’s Environmental Commitments:**

**The Willingness of the Company Leadership**

*Company Culture*

1. Has the company leadership often expressed statements related to environmental issues within the public domain?
2. Have the company’s internal rules supported environmental sustainability?

*Company Structure*

3. Does the company’s organizational structure enable the commitments to be implemented and monitored?

**The Content of the Environmental Commitments**

*The Subject*

4. Is the commitment about natural resource efficiency or greenhouse emission reduction?

*The Scope*

5. Is the commitment directly related to the company’s corporate strategies and development?

**Specific Metrics for Checking in Progress**
6. Did the company announce the commitment together with key metrics, strategies, and other information that can help measure the progress?

**Stakeholder Engagement**

*Opportunities for Stakeholders to Participate*

7. Has the company included both internal and external stakeholders to design the commitments?

8. Has the company had a systematic way for internal and external stakeholders to share feedback regarding implementing and monitoring the commitments?

**The Quality of Information Disclosure**

*Reporting Standard*

9. Has the company adopted any well-recognized reporting framework to disclose environmental information?

*Reporting Frequency*

10. Has the company published such reports regularly?

*Third-Party Verification*

11. Has the company invited a third-party to validate its disclosure reports?

Note: questions can be added to this framework to collect and confirm more information.

Table 2.1: Proposed Framework for Evaluating A Company’s Environmental Commitments

In the following sections, the author explains why these aspects matter and proposes to use them as indicators to evaluate the effectiveness of any corporate environmental commitment, regardless of where the company is located.

2.3.1 **The Company Leadership’s Willingness**

No matter the type of motivation that drives companies to adopt CSR, the fundamental factor is whether a company’s leadership has a strong willingness to translate the motivation to action. Most CSR initiatives tend to be top-down, if the company leadership thinks highly of the commitments, they would arrange resources and
overcome obstacles to achieve them. Otherwise, the voluntary nature of such commitments determines that targets can be unambitious and reversed at any time.

Measuring company leadership's willingness accurately is challenging but can be evaluated through company culture. According to Groysberg et al., company culture can be a powerful differentiator and often strongly aligns with corporate strategies.\textsuperscript{271} Company culture with specific features (such as “purpose”) can unite employees to focus on sustainability issues.\textsuperscript{272} Groysberg et al. also pointed out that company culture contributes to the company leadership selection by choosing the individuals that agree with the company culture.\textsuperscript{273} Executive officers and the strategies they make can shape the culture as well.\textsuperscript{274}

Therefore, if the environmental mindset has been incorporated into a company’s culture, the company’s internal and external activities will reflect such willingness. Company leaders who agree with the company culture would also follow it. Naturally, the leadership members (of value- and performance-driven companies) are likely to be the ones who take the initiative to raise awareness of specific environmental issues (Step 1) and assess how issues are related to company operations (Step 2).

\textsuperscript{272} Id.
\textsuperscript{273} Id.
\textsuperscript{274} Id.
As outsiders, consumers can gain some understanding of a company’s culture from its leadership’s publicly expressed statements. For example, the Swedish furniture company IKEA had its Investment Managing Director make the following comment when CNN news media interviewed her: “We truly believe responsible forest management is possible and we see that a large part of our responsibility towards the land we own—and by extension the planet—is to restore forests and plant more than we harvest . . . In all our properties nature conservation is important.” The statement indicates that IKEA cares about nature and has embedded this value into its financial investments.

Other than public statements, company culture can also be demonstrated through corporate rules. For example, the German sports apparel brand PUMA developed a Sustainability Handbook for employees to understand the company’s sustainability targets and how employees should incorporate the targets into their business conduct. Furthermore, some companies organize regular training sessions to educate employees about environmental and sustainability issues. By partnering with Arizona State University, the U.S. coffee chain Starbucks developed an online program called Greener

275 See id. (stating “Top leaders and founders often express cultural sentiments within the public domain, either intentionally or unintentionally. Such statements can provide important clues to how these leaders are thinking about and leading their organizations’ cultures.”).
Apron, which focuses on providing free learning courses to all Starbucks employees.\textsuperscript{278} This program lets employees learn more about climate change, recycling and waste reduction, water and energy conservation, and LEED certification for stores.\textsuperscript{279}

Evaluating a company leadership’s willingness to pursue environmental goals should consider company structure. In the commitment implementation stage, all company departments must act consistently and cohesively through their strategies (both short- and long-term) and daily operations to achieve environmental goals. According to McKinsey & Company, an influential global consulting firm, a well-designed corporate governing structure allows the company to effectively implement environmental sustainability.\textsuperscript{280} Although such an organizational structure would be different on a case-by-case basis, McKinsey summarized that companies commonly establish a dedicated team (with or without decision rights) to ensure sustainability.\textsuperscript{281}

Through conducting interviews with senior managers responsible for their companies’ CSR programs and reviewing the information published on the companies’ websites, the author found that multinational companies generally establish a department or a committee as “a dedicated team” to undertake the CSR organizational

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\textsuperscript{279} \textit{Id}.
\textsuperscript{281} \textit{See id}. (noting that implementing sustainability can be the most effective when there is a small, central team and dedicated resources).
\end{flushleft}
responsibilities authorized by the board. The team serves as a bridge to assist the top-level management with: establishing corporate environmental goals, developing related programs aimed to achieve these goals, and motivating the whole company to make efforts through education. Yili, a Chinese dairy products producer, provides an example of such a structure to implement its commitment to protect and conserve biodiversity. Yili established a Committee for Sustainable Development under the Chairman of the Board.\textsuperscript{282} The Committee has a Secretariat and a management platform.\textsuperscript{283} Under the platform, each department of Yili has been assigned one point contact person by the Committee. These point contacts communicate between the Committee and company departments to ensure the company’s sustainability agenda is fully integrated into products’ life cycles and all departments’ daily operations.\textsuperscript{284}

Eccles et al. specified that boards of directors perform the monitoring and advising role to ensure that company management (including the designated team) is making decisions consistent with the company’s sustainability objectives.\textsuperscript{285} Because the board plays a critical role, some companies, such as the U.S. dairy company Ben & Jerry's, select their board of directors by asking how the director’s individual social and

\begin{itemize}
    \item \textsuperscript{283} Id.
    \item \textsuperscript{284} Id. at 28.
    \item \textsuperscript{285} See Robert G. Eccles et al., The Impact of Corporate Sustainability on Organizational Processes and Performance, 60 MGMT. SCI. 2835, 2838 (2014) (discussing the effect of sustainability on corporate governance).
\end{itemize}
environmental values can align with the company’s missions. Eccles et al. also observed that companies with highly incorporated environmental and social policies tend to link top management officers’ compensation with their sustainability performance. The link serves as an incentive to ensure the leadership fulfills its responsibilities.

In the U.S. and China, the designated team in SMEs is usually just one person. The appointed person communicates and reports to company leadership, facilitates meetings and discussions to finalize options for proceeding with such commitments, and develops implementation plans. This person’s direct supervisor usually serves as the monitoring role within the company.

In summary, company culture and organizational structure are indicators that can evaluate the willingness of a company’s leadership to pursue environmental goals. Management officers’ public statements and rules of business conduct can reveal company culture. Organizational structure provides a clue to the hierarchy of how a company designs, implements, and monitors its environmental sustainability agenda.

See How We’re Structured, BEN & JERRY’S, https://www.benjerry.com/about-us/how-were-structured#1timeline (last visited Mar. 1, 2022) (noting that the Board of Directors have individual social and environmental values that further Ben and Jerry’s mission of equity and integrity).

See Eccles et al., supra note 285, at 2838–39 (discussing compensation for top management).

Id.

The responsible leadership can be the company’s president/vice president, head of the treasury/finance department, or head of marketing/external communication department, etc.
2.3.2 Environmental Commitment Content

Environmental commitment content is another proposed indicator to evaluate corporate commitments’ effectiveness. To analyze this indicator, it can be divided into three aspects: the subject, scope, and specific metrics for measuring commitments’ progress.

To motivate companies’ willingness to develop their commitments, the subjects have to be highly relevant to their value chains. Ceres, a U.S.-based organization, developed corporate sustainability progress reports in 2012, 2014, and 2018. Each report systematically analyzed more than 600 large U.S. companies among sectors including: transportation, financial services, food and beverage, footwear and apparel, oil and gas producers, retail, technology, and utilities. Ceres’ reports found that only companies from the food and beverage sectors, footwear and apparel, oil and gas producers, and utilities have systematic water management programs (including water risk assessment, disclosure, and reduction). Among the surveyed companies, 55% (2012 Report), 50% (2014 Report) and 55% (2018 Report) of the companies have water management programs, such as water risk assessment and disclosure, water usage reduction. See CERES, THE ROAD TO 2020: CORPORATE PROGRESS ON THE CERES ROADMAP 12 (2012); CERES, GAINING GROUND: CORPORATE PROGRESS ON THE CERES ROADMAP FOR SUSTAINABILITY 40 (2014); CERES, TURNING POINT: CORPORATE PROGRESS ON THE CERES ROADMAP FOR SUSTAINABILITY (2018).
energy application) can be found in all the surveyed sectors.\textsuperscript{291} Similarly, Li et al. found that energy and water are the issues on which Chinese companies’ CSR programs focus the most, after examining 34,000 CSR projects released by 839 companies in 31 provinces from 2006 to 2016.\textsuperscript{292}

The U.S. and China focus mostly on water and GHG emission/energy efficiency in selecting subjects for corporate environmental responsibility. Addressing water usage can reduce material risk to businesses\textsuperscript{293} and reducing GHG emissions would help companies save money.\textsuperscript{294} Therefore, companies have a stronger willingness to make aggressive voluntary commitments and even push the government to take further action on these topics. For example, in 2021, some U.S. companies even collectively urged the government to develop specific targets to reduce GHG emissions.\textsuperscript{295}

Commitments

\textsuperscript{291} Among the surveyed companies, 32\% (2012 Report), 35\% (2014 Report) and 36\% (2018 Report) track and report GHG emissions, established goals and corporate programs to reduce GHG emissions, increase renewable energy use and energy efficiency. \textit{Id.}
\textsuperscript{292} See Li et al., supra note 211.
\textsuperscript{293} According to the CDP, a growing number of companies are beginning to invest significant money, time and effort into addressing the risks they face. In 2017, companies have committed U.S. $23.4 billion across more than 1,000 projects to tackle water risks in 91 countries around the world. \textit{See} CARBON DISCLOSURE PROJECT, A TURNING TIDE: TRACKING CORPORATE ACTION ON WATER SECURITY-CDP GLOBAL WATER REPORT 2017 14 (2017), https://www.cdp.net/en/research/global-reports/global-water-report-2017.
\textsuperscript{294} CDP collected the largest data set ever through its supply chain program and reported emissions reductions amounting to 551 million metric tonnes CO2, which translates into US$14 billion in cost savings. \textit{See} CARBON DISCLOSURE PROJECT, CLOSING THE GAP: SCALING UP SUSTAINABLE SUPPLY CHAINS 4 (2017–18), https://www.cdp.net/ja/reports/downloads/3014.
\textsuperscript{295} A group of corporations issued a collective letter to President Biden, urging him to set a federal target to cut carbon emissions. Alexandra Kelley, \textit{Executives representing 60M employees ask Biden to cut carbon emissions}, THE HILL (Apr. 13, 2021),
related to water, GHG emissions, and energy efficiency would therefore be more effectively selected for implementation than other environmental issues.

Second, to establish effective corporate commitments companies must define their scope of intended responsibility. Delmas and Burbano summarized that the scope can be at a corporate level and/or a product level.²⁹⁶ Corporate level commitments include: company vision and missions, standards adherence, corporate certification, medium- to long-term goals, report communication, and targeted special operations.²⁹⁷ In conjunction, product level commitments include labeling, targeted advertising, packaging, and product certifications.²⁹⁸ For example, in 2013, Coca-Cola set the goal of reducing its products’ carbon footprint by 25% of its 2010 emission baseline by 2020.²⁹⁹ Even though this goal only targets products, it would require Coca-Cola to refine its supply chain and manufacturing operations, which are highly relevant to the company’s medium- to long-term strategies and visions.

Third, if the company has developed a set of specific metrics for measuring corporate environmental commitments’ progress, the authenticity of companies’ pledges can be revealed. According to Reilly and Hynan, genuinely green companies’ public messages contain more details, facts, and use measurable numbers to showcase their

²⁹⁷ Id.
²⁹⁸ Id.
progress. Walmart, the retail giant, established its GHG emission reduction goals with an outline of specific timeframes and key metrics used to simultaneously measure Walmart’s progress and the effectiveness of its strategy. Walmart also published the method to develop its implementation plan, plans on how it will achieve its goals internally, and methods of overcoming perceived management challenges along the way. Besides measuring progress, a detailed plan including such information can also guide the whole company to work toward the goals.

One advantage of corporate environmental commitments is that companies may compete with each other regarding their promises, which pushes companies in the same industry to develop similar or bolder environmental commitments. For example, in 2020 Microsoft announced that it will be carbon negative by 2030, and by 2050 it will have offset or captured the equivalent of Microsoft’s entire historical carbon emissions, including indirect emissions via electricity consumption, since Microsoft’s founding in 1975. Later in the same year, Apple unveiled a roadmap to achieve zero carbon for its supply chain and products by 2030. Google also announced its goal of operating on

300 See Anne H. Reilly & Katherine A. Hynan, Corporate communication, sustainability, and social media: It’s not easy (really) being green, 57 BUS. HORIZONS 747–758 (2014) (discussing how green firms are more active than Not Green firms in addressing their sustainability practices and social media use, as well as the metrics they use and how they communicate them).
302 Id.
303 Smith, supra note 230.
304 See Press Release, Apple commits to be 100 percent carbon neutral for its supply chain and products by 2030, APPLE NEWSROOM, (Jul. 21, 2020),
carbon-free energy by 2030.\textsuperscript{305} In 2022, Intel publicly revealed its goal of achieving net-zero GHG emissions in its global operations by 2040.\textsuperscript{306} Tencent, an influential Chinese technology company, committed to becoming carbon neutral by 2030.\textsuperscript{307} All these goals contain clear deadlines and plans to achieve carbon neutrality or become carbon negative. It could be a coincidence that these high-technology companies’ announcement dates on their carbon mitigation commitments are close to each other, but it also indicates that pressure from competitors could motivate companies to race to the top.

However, keep in mind that it is not realistic to expect a company to tackle environmental issues as comprehensively as the government, even if the company has inspired leadership that aims to achieve multiple facets of environmental sustainability.


2.3.3 Stakeholder Participation

Stakeholder participation includes practices that an organization undertakes to involve stakeholders in a positive manner with regard to organizational activities.\(^{308}\) Companies practicing good stakeholder engagement “will proactively engage in robust dialogue with stakeholders across the whole value chain, and will integrate stakeholder feedback into strategic planning and operational decision-making.”\(^{309}\) This highlights the possibility of stakeholder-driven companies changing their practices because their stakeholders “forced” them to.

The stakeholder engagement process involves establishing, developing, and maintaining stakeholder relations—particularly stakeholder identification, consultation, communication, and information exchange.\(^{310}\) Each group of stakeholders merits consideration for its own sake.\(^{311}\) If companies provide appropriate channels, stakeholders can motivate, influence, or assist a company's leadership in defining better, bolder, and/or more ambitious goals. For a company, the more stakeholders a company can identify and engage, the more comprehensive insights of environmental concerns they can gather and transform into commitments that can spread positive impacts.


\(^{309}\) CERES (2012), *supra* note 290, at 5.


Therefore, it is important to see if a company has established systematic structures for stakeholder involvement during the stage of commitment design.

Furthermore, stakeholder participation can help increase the transparency of CSR implementation and monitoring. During these two stages, stakeholders commonly rely on public-access information, including company websites, published CSR reports, and third-party surveys. This information is then used to evaluate (1) if the company's environmental goals match its capabilities and environmental impact; and (2) if the company’s related environmental programs are effective to achieve the goals. Robust stakeholder participation appears to be a prerequisite to high-quality corporate information disclosure.\(^\text{312}\)

Real life examples show that stakeholders “work” together to maximize their advantages to effectively monitor companies’ environmental commitments. Some research has revealed that, generally, consumers alone cannot identify whether an environmental claim is greenwashed or authentic, and the research underscored the need to educate consumers about environmental claims.\(^\text{313}\) However, utilizing social media enables consumers to effectively monitor companies’ environmental performance. Lyon

\(^{312}\)See discussion infra Part 2.3.4 (discussing the proposed indicators).

and Montgomery opined that traditional mass media (such as television and print media) primarily involved one-way communication, while social media platforms (such as websites, forums, Facebook, and Twitter) embody functions that allow site visitors to leave comments and interact with the site host. Social media, compared to traditional media, allows the public and companies to have two-way communication, which increases the information available to the public.

Similarly, competitors together with social organizations can also expose companies’ inappropriate environmental claims. For example, the Procter & Gamble Company challenged a non-toxic claim on Windex Vinegar Glass Cleaner, a product developed by S.C. Johnson & Son, Inc., and submitted the case to the National Advertising Division of Better Business Bureau National Programs. As a program that promotes truthful, transparent and responsible advertising, the National Advertising Division is an investigative unit of the advertising industry’s system of self-regulation and is a division of Better Business Bureau National Programs’ self-regulatory and dispute resolution programs. After reviewing the evidence submitted by Johnson & Son, the National Advertising Division of Better Business Bureau recommended that

315 Id.
Johnson & Son discontinue the claim “non-toxic” on package labeling for its Windex Vinegar Glass Cleaner, since the evidence provided by Johnson & Son was not able to support such a claim that was both health and environmental benefit-related. This case indicated that competitors and social organizations serve as a strong force for accountability by scrutinizing companies’ voluntary claims.

From the above, it is reasonable to assume that the more stakeholders can participate in the cycle of corporate commitment development, the more effective and impactful the commitments would be.

2.3.4 The Quality of Information Disclosure

According to the step-by-step guide summarized by Maon et al., the monitoring stage of corporate commitments includes communicating the commitments and their performance (Step 7) and evaluating the implementation process (Step 8). Both steps rely on information sharing and disclosure, which not only inform company leadership but also enable valid stakeholder participation. Therefore, the quality of information disclosure is another vital indicator to evaluate the effectiveness of a company’s environmental commitments.

\[318\] See id. (determining that the term “non-toxic” reasonably conveys a message that the product will not harm people (including small children), common pets, or the environment. Importantly, it noted that a reasonable consumer’s understanding of the concept of “will not harm” is not limited to death, but also various types of temporary physical illness, such as vomiting, rash, and gastrointestinal upset. However, this is what the impact that the disputed product can bring).

\[319\] See François Maon et al., supra note 270, at 82 (explaining the monitoring stage of corporate commitments and what it entails).
The quality of information disclosure relies on sufficient first-hand data and information generated from internal practice. The person or the department that oversees CSR programs measures these activities’ performance by analyzing the results of different compliance surveys conducted on employees, customers, and suppliers; collecting data to evaluate the results of environmental impacts (corporate waste, carbon emissions, water usage, etc.); and looking at other CSR commitments. Companies commonly work with business service providers to complete the data collection and evaluation process. With this data and information collected, companies can develop reports for internal and external purposes. These internal monitoring and data collection measures lay the foundation for external monitoring. In this context, if a company’s leadership has strong convictions, demonstrated by a positive company culture and well-designed accountability metrics, the company’s CSR is more likely to have the intended impact.

Once the raw data and materials are ready, the focus shifts to what should be disclosed (the content) and how to present the information (the format). To improve the quality of disclosed information, companies in the U.S. and China are increasingly adopting reporting frameworks developed by non-governmental organizations (NGOs). Below, two commonly used reporting frameworks and their environmental information disclosure requirements are highlighted. The first framework focuses on comprehensive corporate environmental information disclosure. The second framework concentrates on providing information related to corporate climate risks from the financial perspective.

1. Sustainability Reporting Framework
Global Reporting Initiative (GRI) is an independent international organization that helps businesses, governments, and other organizations standardize and communicate their impacts on issues such as climate change, human rights, and corruption.\textsuperscript{320} The Sustainability Reporting Framework, developed by GRI, is one of the popular voluntary reporting standards. This framework is a generally accepted practice for reporting on an organization’s economic, environmental, and social performance. The Sustainability Reporting Framework is designed for use by organizations of any size, sector, or location.\textsuperscript{321}

The Sustainability Reporting Framework uses a set of “Environmental Indicators” to guide businesses on how to disclose crucial corporate environmental information, including: companies’ required environmental inputs (e.g., material, energy, water) and impacts related to their business operations and product-making processes (e.g., emissions, effluents, waste, biodiversity).\textsuperscript{322} Using waste information disclosure as an example, any companies that follow the Sustainability Reporting Framework would need to provide information about the organization’s significant, actual, and potential waste-related impacts and how the organization manages them.\textsuperscript{323} These significant, actual, and potential waste-related impacts include the inputs, activities, and outputs that lead or

\textsuperscript{320} About GRI, GLOB. REPORTING INITIATIVE (2023), https://www.globalreporting.org/about-gri/.
\textsuperscript{321} GLOB. REPORTING INITIATIVE, SUSTAINABILITY REPORTING GUIDELINES VERSION 3.1, 2, 3–8 (2011).
\textsuperscript{322} See, e.g., GLOB. REPORTING INITIATIVE, GRI 1: FOUNDATION 2021 4, 8-10 (2022) (summarizing basic GRI framework).
\textsuperscript{323} See GLOB. REPORTING INITIATIVE, GRI 306: WASTE 2020 8–10 (2022) (providing an example of reporting requirements under the Sustainability Reporting Framework).
could lead to these impacts, whether these activities are done by the organization itself, its upstream suppliers, or downstream customers in its supply chains.\textsuperscript{324}

Companies that follow the GRI Sustainability Reporting Framework can use different forms (stand-alone or combined with annual or financial reports) and choose different topics to report.\textsuperscript{325} Since reporting is self-declaration-based, companies can have an “assurance provider” offer an opinion on the report or request the GRI to check.\textsuperscript{326} If an organization decides to release a report that follows the Sustainability Reporting Framework, the organization must notify the GRI.\textsuperscript{327}

The design of the Framework is centered around an organization’s value chain and is concerned with a wider range of impacts and stakeholders, broader social expectations, and the organization’s influence on upstream and downstream entities. The framework is unique when compared to existing legal requirements for corporate environmental information disclosure, which usually only cover the organization itself regardless of whether it is in China or the U.S.\textsuperscript{328}

2. Disclosure Framework: Recommendations of the Task Force on Climate-Related Financial Disclosures

To help investors, lenders, and insurance underwriters identify information that they need to assess and price climate-related risks and opportunities, the Financial

\textsuperscript{324} Id. at 8.  
\textsuperscript{325} GLOB. REPORTING INITIATIVE, supra note 321, at 6.  
\textsuperscript{326} Id.  
\textsuperscript{327} Id.  
\textsuperscript{328} Id. at 8.
Stability Board (an international body that monitors and makes recommendations about the global financial system) established an industry-led task force in December 2015: the Task Force on Climate-Related Financial Disclosures (Task Force). In 2017, the Task Force published a set of voluntary, consistent climate-related financial disclosure recommendations useful to investors, lenders, and insurance underwriters in understanding how climate risks pose material impacts. According to the Task Force, such recommendations are suitable for all organizations to implement, since climate change impacts all types of sectors and businesses. The Task Force recommends that organizations provide climate-related financial disclosures in their mainstream (i.e., public) annual financial filings.

The Task Force structured its recommendations around four thematic areas that represent core elements of how organizations operate: governance, strategy, risk management, and metrics and targets. Each area provides a list of metrics that show what kind of information organizations should gather and disclose. For example, the major recommendations associated with risk management include describing the organization’s processes for identifying, assessing, and managing climate-related risks.

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331 Id. at 17.
332 Id.
333 Id. at iv.
334 Id. at 21–22.
Climate-related risks are not necessarily relevant to corporate environmental impacts, unless the organization’s value chain heavily relies on natural resources as inputs or the organization’s outputs could pose adverse impacts to the environment. From this perspective, the disclosure framework developed by the Task Force is not as comprehensive as the Sustainability Reporting Framework.

Generally, in both China and the U.S., businesses of any size have numerous voluntary standards to choose from to improve the quality of their external corporate disclosures. Currently, the voluntary standards concentrate on the realms that the mandatory requirements do not include, such as climate risks and carbon emission reductions. This exclusion enables NGOs to encourage and nudge companies to go beyond the limitation of mandatory disclosures. These areas are also opportunities that companies can develop and pursue for voluntary environmental commitments. It is worth pointing out that the NGOs encouraging the voluntary reporting standards have strategically teamed up to refine and promote the adoption of the standards—which indicates that these various voluntary standards might be unified in the future.335

In practice, to improve the quality of information disclosure, some companies take the initiative to seek third-party verification and assurance in the company’s CSR

335 Two examples are the Climate Disclosure Standards Board (CDSB) and Sustainability Accounting Standards Board (SASB). These organizations are “well-established in the market,” have “rigorously developed TCFD-aligned reporting tools,” and “are uniquely positioned to support the implementation of the recommendations and the 11 associated disclosures in a way that is both cost-effective for companies and decision-useful for investors.” SASB FOUND. & CDP WORLDWIDE, TCFD IMPLEMENTATION GUIDE 4 (2019).
reports to validate corporate sustainability efforts. Third-party verification can only be provided for non-financial data and need not be performed by an accredited professional; while third-party assurance (a data check process) applies the same methodologies and standards as financial data and must be performed by an accredited auditor (such as Price Waterhouse Coopers, Lloyd’s Register Quality Assurance, or Deloitte). If a company’s sustainability reports—both financial and non-financial—are verified and assured by third-party service providers, the quality of these reports’ content will be increased and such reports would be deemed as credible. For example, Etsy, a U.S. e-commerce platform, claimed that it reported carbon emissions by following the Greenhouse Gas Protocol (the industry standard and international tool for greenhouse gas accounting) and commissioned Price Waterhouse Coopers LLP to provide third-party assurance of the reported data and calculation methods in Etsy’s 2015 Progress Report. In that case, the third-party auditor served as a supervisor of the company’s corporate environmental disclosure to some extent.

Overall, these four proposed indicators (the company leadership's willingness, environmental commitment content, stakeholder participation, and the quality of

337 See Kelia Cowan, How Assurance and Verification Help Your Sustainability Efforts, MEASURABL (May 1, 2020), https://www.measurabl.com/how-assurance-and-verification-help-your-sustainability-efforts/ (noting that companies may avoid being accused of greenwashing or falsely reporting their carbon-reducing goals by seeking third-party verification).
corporate information disclosure) align with the development cycle of corporate commitments (design, implementation, and monitoring) and the motivations that drive companies to act. Understanding the relationship dynamics of these indicators (which develop during companies’ voluntary environmental commitments) empowers lawmakers and governments to better evaluate these commitments’ effectiveness.

Company leadership’s willingness is the foundation that determines the rest of the indicators. The more willing company leadership is to tackle environmental problems, the more likely that the company will refine its organizational structure, develop an actionable agenda, enable effective stakeholder participation, and provide high-quality information disclosure. If the company leaders’ willingness is weak, as the arrow shows in Table 2.2 below, stakeholders (such as social organizations, competitors, investors, customers, the press, and the government, empowered by corporate information disclosure) can pressure companies to act promptly or aim for more ambitious goals. Some stakeholders, such as the company's competitors, investors, customers, and the government, are more influential than others.

Table 2.2: The Relationship between the Four Indicators
Additionally, stakeholder participation can be more substantial if the company's leadership is willing to include multiple stakeholders in their commitment development process, so participating stakeholders can help shape commitments from the beginning. The more stakeholders are involved in developing and monitoring commitments, the more likely companies are to keep their promises.

2.4 How Existing Laws Support and Monitor Unilateral Corporate Environmental Commitments’ Effectiveness

Although companies enjoy the freedom of establishing corporate unilateral environmental goals and other CSR programs on a voluntary basis, legislators have developed rules to encourage companies to take the initiative and to guarantee the effectiveness of these voluntary commitments. This section concentrates on existing laws and regulations in the U.S. and China that support the development of corporate commitments and the monitoring of their progress.

2.4.1 Corporate Code of Ethics

The Corporate Code of Ethics (CCE), also known as the Code of Conduct or Business Code of Ethics, was written with the intent to increase moral conduct in an organization and to guide corporate, employee, and other stakeholders’ behavior. A company can reflect its business ethics and values in its CCE, including environmentally related goals and responsibilities. In other words, if the law requires companies to

develop and disclose their CCEs, company stakeholders (particularly the external ones) can get a glimpse of the company’s culture and how it perceives environmental sustainability.

In the U.S., the Sarbanes–Oxley Act of 2002 requires publicly listed companies to establish ethical rules and standards to govern the conduct of all the companies’ directors, officers, and employees.\textsuperscript{340} The U.S. SEC has since made changes in the oversight of listed companies.\textsuperscript{341} The updated SEC rules require companies subject to their requirements to “disclose annually whether the company has adopted a code of ethics for the company's principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions”; if not, “the company will be required to explain why.”\textsuperscript{342} However, the SEC did not set forth additional ethical principles that the code of ethics should address, because the SEC proclaimed “ethics codes do, and should, vary from company to company and that decisions as to the specific provisions of the code, compliance procedures and disciplinary measures for ethical breaches are best left to the company.”\textsuperscript{343}

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U.S. companies’ CCEs typically include the following elements: (1) an
introduction or preamble; (2) a statement of purposes, missions, and values; (3)
behavioral examples; and (4) implementation measures, which define the requisite
administrative processes, reporting requirements, and sanctions for violations. In
practice, companies tend to build CSR goals into their codes, from environmental
practices to other social issues (such as human rights, child labor, etc.). Companies
generally elaborate their environmental goals and responsibilities in a section on
missions, values, and implementation in their CCEs. To some extent, the requirement of
developing a CCE forces companies to incorporate business ethics and CSR into their
daily operations. Regardless of the variance between companies, employees and
stakeholders must understand a company’s code of ethics and conduct and what the
company stands for. This will also inform stakeholders whether the company’s CSR
goals are consistent with its CCE.

344 See Corporate Ethics and Sarbanes-Oxley, FINDLAW, (Dec. 29, 2017),
describing the composition of a typical code of ethics).
345 That’s because the consulting industry suggests building CSR goals in their CCEs as a
recommended practice. See Kezia Farnham, Business Ethics and Corporate Social
Responsibility Debunked, DILIGENT (Jun. 7, 2022),
https://www.diligent.com/insights/esg/business-ethics-and-corporate-social-
responsibility/.
346 Amanda Nieweler, Corporate Social Responsibility: Is It in Your Code of Conduct?,
WHISTLEBLOWER SEC. (Jul. 22, 2021),
https://blog.whistleblowersecurity.com/blog/corporate-social-responsibility-is-it-in-your-
code-of-conduct#:~:text=Any%20company%20can%20have%20CSR,what%20the%20company
%20stands%20for.
From 2005–2016, U.S. CCE case studies found that CCEs seem to be effective in terms of controlling unethical behavior to a limited extent.\textsuperscript{347} At the same time, CCEs may be morally disempowering because CCEs are usually written by the management and passed down to the employees and suppliers as a mandate (assuming company stakeholder participation is absent).\textsuperscript{348} The case studies also noticed that CCE content is consistently centered around regulatory requirements and subjects with legal influence.\textsuperscript{349} A comparison of code content between 1992 and 2003 revealed increased mentions of “environmental affairs in conduct on behalf of the firm, and environmental laws,” but “the codes are mostly concerned with actions against the firm than actions by the firm.”\textsuperscript{350} This shows that companies are inclined to use legal requirements as a baseline to manage their environmental behaviors in order to protect their interests. Furthermore, the increasing mentions of environmental issues is in line with the Clinton Administration’s emphasis on engaging with the business sector on environmental protection via various voluntary governmental environmental programs.\textsuperscript{351} A literature review further indicated that voluntary governmental environmental programs could lead

\begin{footnotesize}
\textsuperscript{347} See Babri et al., supra note 339, at 104 (summarizing findings from U.S. case studies of CCE).
\textsuperscript{348} See id. at 83 (“[L]arge corporations . . . coercively pass responsibility for ethical, environmental and social issues down the supply chain through internal sub-organization level codes.”).
\textsuperscript{349} Id. at 82.
\textsuperscript{350} Id.
\textsuperscript{351} A review of the Clinton administration (1993-2001) shows that one of the features is that the “Clinton Administration put much greater emphasis than previous administrations on expanding the role of . . . voluntary programs.” See SHEILA M. CAVANAGH ET AL., supra note 53.
\end{footnotesize}
to increased environmental awareness in the business sector, and could thus be reflected in companies’ CCEs.\textsuperscript{352}  

Compared to the U.S., the development of CCEs and other similar documents in China started later. The first wave of development, between 2008 and 2010, happened among those companies (both state-owned and non-state-owned) that needed to be listed on overseas stock markets, such as the New York Stock Exchange.\textsuperscript{353} These companies follow U.S. laws to establish and disclose CCEs to fulfill the requirements of being listed. The recent second wave of “CCE development” in China primarily concentrates on corporate compliance. Chinese practitioners suggest that a company’s corporate compliance has three layers.\textsuperscript{354} The first layer, and primary foundation, is that the company and its employees must abide by the laws and regulations of where the  

\textsuperscript{352} See Babri et al., supra note 339, at 89 tbl. 2 (summarizing CCE studies and outcomes).  
\textsuperscript{354} See WeLegal (法盟), Conghexinchufa, wuweiqifazong Jiangtou Qiyedahguiyuzhuanshanghegu (从核心出发，5 位名企法总讲透企业大合规与专项合规) [Five Legal Counsels Talk about Company General and Special Compliance], Qiye Hegui Yuanzhuo Duihua (企业合规圆桌对话)[TABLE TALK WEBINAR] (Jan. 25, 2023) (discussing compliance in China).
company operates. The second layer is that the company and its employees’ business conduct should comply with the corporate rules and its voluntary commitments. The third layer states that the company and its employees should comply with professional ethics and social customs. A review of CCEs developed by Chinese companies shows that most aim to fully comply with legal requirements (the first layer), which is a similar situation shared by U.S. companies.

Like the U.S., the Chinese government takes on the responsibility of advocating for businesses to develop their CCEs to guide business operations. In December 2017, Compliance Management Systems: Guidelines, were issued by the China National Institution of Standardization, as the first national standard of corporate compliance. This standard aims to provide guidance and suggestions to all types of organizations to “reduce the risks of non-compliance, strengthen [the understanding and implementation of] social responsibility, help achieve sustainable development, and be beneficial to create a fair market for healthy competition.” In 2018, the national government released more guidelines for corporate compliance. This included Guidelines on Compliance Management in Central Enterprises issued by the State-Owned Assets

355 Id.
356 Id.
357 Id.
359 Id.
Supervision and Administration Commission of the State Council, and Guidelines on Corporate Compliance Management in Overseas Operations issued by National Development and Reform Commission, and six other national departments. Both documents urge companies to adopt environmental protections as a key topic to strengthen compliance management.

However, not all companies specifically mentioned environmental laws in their compliance documents. Some companies stated the environmental aspect at a high level. For example, China National Offshore Oil Corporation says its “directors and Senior Officers must comply fully with, among other things, all applicable laws, rules and regulations that govern our business conduct in the [People's Republic of China] and any other region or country in which the Company conducts its business.” Some companies elaborated with details regarding how to reduce the company’s adverse environmental  

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360 See Zhongyangqiye Heguiguanli Zhiyin (Shixing) ([Guidelines for Compliance Management of Central Enterprises (Trial Implementation)]) (promulgated by the St.-owned Assets Supervision & Admin. Comm’n, Nov. 2, 2018; rev’d by the St. Council, Nov. 9, 2018), http://www.sasac.gov.cn/n2588035/c9804413/content.html (describing guidelines for central companies to refine corporate environmental operations with using laws and regulations and corporate rules as baseline).


impacts. For example, Qiqihar Rolling Stock Co. mentioned that it will develop and follow its internal standards if it operates in a place without any environmental laws or requirements—to minimize the environmental burden. \(^{363}\) Moreover, Qiqihar also extended the standards to its suppliers through contracts, and Qiqihar committed to end a business relationship if any supplier cannot meet their environmental standards.\(^{364}\)

Unlike the U.S., CCE development and disclosure are not mandatory in China. However, it is foreseeable that the national government will regulate this subject soon—especially since the Chinese government has emphasized CSR practice and disclosure related to environmental protection and climate mitigation in recent years.

### 2.4.2 Directors’ Fiduciary Duties

In modern corporate law, many countries recognize that fiduciary duties include the duty of loyalty and duty of care.\(^{365}\) Duty of loyalty is a commitment that corporate directors make to act in the company’s or its shareholders’ best interests instead of the directors’ personal interests.\(^{366}\) Duty of care requires corporate directors to make decisions in a reasonable and prudent way when they manage the company’s daily

\(^{363}\) *See* Zhongche Qiqiha’er Cheliang Youxian Gongsi (中车齐齐哈尔车辆有限公司) [China Railway Rolling Stock Corporation (CRRC)], Qiqiha’er Company, Quiche Gongsi Shangye Zhunze (齐车公司商业准则) [Rules of Business Conduct of Qiqiha’er Company of China Railway Rolling Stock Corporation] https://www.crrcgc.cc/qqhe/g7587.aspx (discussing the company’s code of conduct).

\(^{364}\) *Id.*


operations. The ultimate goal of fiduciary duties is to require crucial corporate officers to minimize the risks the company will face. Fiduciary duties may require directors to act proactively, including making environmental commitments to tackle any new challenges that pose adverse effects or risks to the company.

Some U.S. companies have argued that taking climate action and dealing with other new challenges is an ethical issue rather than a legal problem. This voice has faded in recent years for two major reasons. First, with the increased extreme weather events related to climate change, companies can track the direct material impacts caused by climate risks. A 2021 paper, published by the Commonwealth Climate and Law Initiative, pointed out that “climate change has evolved from an ‘ethical, environmental’ issue to one that presents foreseeable financial and systemic risks (and opportunities) over mainstream investment horizons.”

367 WEX, Duty of Care, CORNELL LAW SCHOOL-LEGAL INFORMATION INSTITUTE, https://www.law.cornell.edu/wex/duty_of_care#:~:text=The%20duty%20of%20care%20is,corporation's%20stakeholders%20or%20broader%20society (Jan. 2022).
368 See generally FRANKEL, supra note 365, at 127–128 (discussing features of fiduciary relationships).
370 Companies can periodically conduct a scenario-based climate risk assessment, aiming to align with the scenario guidance set forth by the Task Force on Climate-related Financial Disclosure (TCFD). See supra Part 2.3.4 (Referring to Disclosure Framework: Recommendations of the Task Force on Climate-related Financial Disclosures).
Secondly, climate-related litigations, particularly those against companies, are emerging worldwide. According to the Global Climate Litigation Report: 2020, globally, an increasing number of claims brought by individuals and NGOs focus on financial risks, fiduciary duties, and corporate due diligence, which directly affect not only fossil fuel and cement companies but also banks, pension funds, asset managers, insurers, major retailers, and other private sectors. These cases claimed that companies failed both to consider that the adverse environmental impacts their actions pose to society have increased due to climate change and to address these risks with more ambitious climate mitigation and adaptation goals. This evolution positioned climate change as a significant material risk factor that corporations cannot neglect any longer.

Therefore, fiduciary duties require directors to consider, oversee, and monitor the implementation of climate-related legal risk controls and disclosures. Considering that many Fortune 500 companies are registered in the State of Delaware, U.S. and after


373 Noted that the overwhelming majority of cases identified continue to be cases from the Global North, which is a term that is based on economic inequalities and favored by many scholars and policymakers. *See id.* at 5 and 11.

reviewing the State’s laws, fiduciary duties may have the potential to push directors to act boldly to achieve net-zero goals both substantively and procedurally.\textsuperscript{375}

While in China, no lawsuits were filed directly related to fiduciary duties linked to corporate commitments and voluntary action (as of December 31, 2023). Existing laws in China tend to regulate directors to observe such responsibilities under corporate information disclosure requirements of the CSR framework, as discussed in Part 2.1.3.\textsuperscript{376} Qualified environmental social groups can bring lawsuits against companies’ environmental behavior that violates CSR related rules.\textsuperscript{377} Meanwhile, the Company Law (2023 revised) states that directors, supervisors, and senior managers who violate laws, administrative regulations, or the company's policies when performing their duties and cause losses to the company shall bear liability for compensation.\textsuperscript{378} This provision

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\textsuperscript{375} See generally id. (discussing how companies, including directors and officers may have fiduciary duties to include climate change into their strategic company decisions).
\textsuperscript{376} See supra Part 2.1.3 (explaining corporate information disclosure requirements for CSR in China).
\textsuperscript{377} According to Article 58 of the Environmental Protection Law (2014 Revision), “For an act polluting environment or causing ecological damage in violation of public interest, a social organization which satisfies the following conditions may institute an action in a people's court: (1) It has been legally registered with the civil affairs department of the people's government at or above the level of a districted city; (2) It has specially engaged in environmental protection for the public good for five consecutive years or more without any recorded violation of law.” Supra note 201, the Environmental Protection Law (2014 Revision).
\textsuperscript{378} Zhonghua Renmin Gongheguo Gongsi Fa 2023 Xiuding (中华人民共和国公司法 (2023 修订)) [The Company Law of the People’s Republic of China] (rev. 2023), as revised and adopted at the 7th Session of the Standing Comm. of the Fourteenth Nat’l People’s Cong. of the People’s Republic of China on December 29, 2023 and will come into force on July 1, 2024. Article 188.
directly strengthens directors’ fiduciary duties, including their environmental responsibilities.

Other than climate risks, corporate sustainability is another challenge that company directors and managers may need to tackle under their fiduciary duties. Responsible investing, also known as sustainable investing, has been on the rise in recent years. Responsible investing is widely understood as the integration of environmental, social, and governance (ESG) factors into investment processes and decision-making, with the assumption that these ESG factors have financial relevance. In practice, ESG factors can include climate risks and other environmental sustainability issues. In 2015, the United Nations Environmental Programme released a report explaining why failing to consider long-term investment value drivers, such as the ESG issues, in investment practice is a failure of fiduciary duty. As a result, support for social and environmental proposals at the shareholder meetings of U.S. companies rose to 32% in 2021 from 27% in 2020 and from 21% in 2017—the rise in support lead some media to call 2021 the year of ESG investing. However, some companies reneged on their ESG investing.

commitments, resulting from intensifying backlash from Republican lawmakers against corporations that consider environmental and social factors in their operations. 382

Regarding responsible investing and ESG factors, it does not look like China plans to embrace ESG with fiduciary duties like the way some U.S. companies do. Instead, the Chinese government may perceive these topics as part of CSR subjects. In 2021, an officer from the China Securities and Regulatory Commission publicly commented that responsible investing has a significant impact on society, and corporate information disclosure is the key to responsible investing. 383 The officer pointed out that: “[c]onsidering responsible investing is still at an early development stage in China; companies need time to understand the topic, so the government is not in a rush to regulate such matters and companies can choose to voluntarily disclose the information.” 384 The officer also mentioned that some issues related to ESG content, such

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384 Id. Noted that the Shenzhen, Shanghai and Beijing Stock Exchanges issued Self-regulatory Guidelines for Listed Companies - Sustainability Reporting (Trial) (Draft for Comments) on February 9, 2024, deployed by the China Securities Regulatory Commission. The Guidelines primarily focus on ESG reporting. See Qiao Yeqiong & Zhang Feiran (乔业琼, 章斐然), Hushenbei Jiaoyisuo Jiu Kechixu Fazhan Pili Zhiyin (沪深北交易所九个相关发展计划)
as corporate environmental information and CSR practices, are mandatory disclosure requirements for publicly listed companies under existing China laws.\textsuperscript{385} These legal requirements are meant to prompt companies to act responsibly regarding environmental issues.

The nature of fiduciary duties can push a company’s leadership to proactively tackle new environmental circumstances that could pose risks to the company’s operation and development. Even if the government had not regulated such circumstances, stakeholders (such as social groups and individuals) may have legal ground against the company.

\textbf{2.4.3 Standards for Publicly Listed Companies' Disclosure and Related Responsibilities}

As discussed, timely and credible information disclosures allow all types of stakeholders to monitor companies’ voluntary commitments. Currently, disclosure requirements in existing U.S. and China laws primarily target publicly listed companies.

In the U.S., the materiality principle is a key standard for publicly listed companies to follow regarding corporate disclosure.\textsuperscript{386} The U.S. Supreme Court has held

\textsuperscript{385} Id.

that facts about a company are “material” if there is a substantial likelihood that a reasonable investor would consider the information important in making an investment decision.\textsuperscript{387} “[M]aterial facts include not only information disclosing the earnings and distributions of a company, but also those facts which affect the probable future of the company.”\textsuperscript{388} The materiality principle is the cornerstone of the U.S. Security Law. The materiality principle is used to determine specific mandatory disclosure requirements that apply to listed companies based on the U.S. SEC regulations.\textsuperscript{389} The specific items that mention environmental disclosure are Description of Business, Legal Proceeding, and Management’s Discussion and Analysis of Financial Condition and Results of Operations (MD&A).\textsuperscript{390}

Description of Business requires a listed company give an overview of the business’s current and future business activities, which is information that could pose material impacts on these activities.\textsuperscript{391} Furthermore, if any information could have material effects on a segment of the company’s business, such a segment should be disclosed as well.\textsuperscript{392} “A segment is a component of a business that generates its own

\begin{itemize}
\item[387] \textit{Id.}
\item[389] \textit{Id.}
\item[391] 17 C.F.R.§ 229.101(c) (2020).
\item[392] \textit{Id.}
\end{itemize}
revenues and creates its own product, product lines, or service offerings.”\(^{393}\) Particularly, the law specifies that:

The material effects that compliance with government regulations, including environmental regulations, may have upon the capital expenditures, earnings and competitive position of the registrant and its subsidiaries, including the estimated capital expenditures for environmental control facilities for the current fiscal year and any other material subsequent period.\(^{394}\)

Legal Proceeding requires a listed company to briefly describe any material pending legal proceedings, other than ordinary routine litigation incidental to the business.\(^{395}\) This includes (1) the material related to proceedings that happen to any crucial officers of the company\(^{396}\) and (2) the proceedings that arise under environmental laws that must be disclosed if: (a) they are material to the business or financial condition of the registrant; (b) they include a claim for damages or costs in excess of 10% of current consolidated basis; or (c) a governmental authority is a party to the proceeding, or is known to be worth less than $300,000.\(^{397}\)


\(^{395}\) 17 C.F.R. § 229.103(c)(2)(i) (2020).

\(^{396}\) See id. (stating that required disclosures in the United States include “[a]ny material proceedings to which any director, officer or affiliate of the registrant, any owner of record or beneficially of more than five percent of any class of voting securities of the registrant, or any associate of any such director, officer, affiliate of the registrant, or security holder is a party adverse to the registrant or any of its subsidiaries or has a material interest adverse to the registrant or any of its subsidiaries.”).

\(^{397}\) See 17 CFR § 229.103(c)(3) (2020). Required disclosures regarding an entity’s legal proceedings also include “[a]dministrative or judicial proceedings (including proceedings which present in large degree the same issues) arising under any Federal, State, or local provisions that have been enacted or adopted regulating the discharge of materials into the environment or primarily for the purpose of protecting the environment. Such
MD&A requests a listed company to “identify any known trends or any known
demands, commitments, events or uncertainties” that are reasonably expected to have
material effects on the company’s business.\(^{398}\) Also, businesses are required to identify
relevant remedies or proposed actions to the material deficiency above.\(^{399}\)

Existing environmental disclosure requirements (particularly under the MD&A)
have the potential to embrace a company’s voluntarily commitments if they pose material
impacts on the company and allow companies to determine whether to disclose these

\(^{398}\) See 17 C.F.R. § 229.303(b)(1)(i) (2020) (stating “(1) Liquidity. Identify any known
trends or any known demands, commitments, events or uncertainties that will result in or
that are reasonably likely to result in the registrant's liquidity increasing or decreasing in
any material way. If a material deficiency is identified, indicate the course of action that
the registrant has taken or proposes to take to remedy the deficiency. Also identify and
separately describe internal and external sources of liquidity, and briefly discuss any
material unused sources of liquid assets.”).

\(^{399}\) Id.
commitments and related status. The U.S. SEC may step in to clarify if the subject of corporate commitments is important.

One prominent example is climate risk disclosure. After several years of mounting pressure from state attorney generals, environmental groups, institutional investors, and others to clarify climate change disclosure requirements under existing U.S. SEC rules, the SEC issued its Interpretive Guidance on climate disclosure in 2010 (the 2010 Climate Guidance). This guidance “encouraged” publicly listed companies to disclose any corporate decisions or legal developments related to climate change that may impact their businesses. Even though the 2010 Climate Guidance does not create any new obligations to registrants, it outlined certain ways in which climate change may trigger disclosure obligations under the SEC’s rules, including legislation and regulations governing climate change, international accords, changes in market demand for goods or services, and physical risks associated with climate change. Furthermore, the 2010 Climate Guidance appeared to have dramatically impacted public company disclosures regarding climate change. According to some U.S. practitioners’ estimates, the number of

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400 See Jennie Morawetz et al., The SEC’s Recent and Planned Activity on Climate Change Disclosures: What Companies Can Do to Prepare, KIRKLAND & ELLIS, (Oct. 1, 2021), https://www.kirkland.com/publications/kirkland-alert/2021/09/sec-climate-change-disclosures (substantiating the outside pressure felt by the SEC with an example of a 100-plus page petition filed in 2007 by the California Public Employees’ Retirement System, Ceres, the New York State Attorney General, other pensions, NGOs, and government representatives urging the SEC to clarify the disclosure requirements of climate risks for corporations).

401 SEC & EXCH. COMM’N, COMMISSION GUIDANCE REGARDING DISCLOSURE RELATED TO CLIMATE CHANGE, 21–28 (2010).

402 Id.

403 Id.
S&P 500 companies mentioning climate change and/or greenhouse gas in their Annual Reports on Form 10-K approximately doubled from the year prior to the year after the release of the 2010 Climate Change Guidance.\textsuperscript{404}

In March 2022, many investors demanded GHG emissions reporting\textsuperscript{405} and more companies disclosed GHG emissions due to the issuance of the 2010 Climate Guidance.\textsuperscript{406} Here, the U.S. SEC proposed a set of mandatory rules to require registrants to disclose information about: the climate-related risks that they face; the governance and management process of dealing with these risks and their related material impacts; and

\textsuperscript{404} See Considerations for Climate Change Disclosures in SEC Reports, GIBSON DUNN LLP. (Mar. 1, 2021) https://www.gibsondunn.com/considerations-for-climate-change-disclosures-in-sec-reports/ (The number is from Gibson Dunn LLP, and they obtained the number based on an “intelligized” search of S&P 500 companies’ Forms 10-K filed between February 1, 2009 and February 1, 2010 (82 filings) compared to February 2, 2010 to February 1, 2011 (167 filings)).
\textsuperscript{405} See Ceres Welcomes SEC’s New Landmark Climate Disclosure Rule Proposal, CERES (Mar. 21, 2022) https://www.ceres.org/news-center/press-releases/ceres-welcomes-secs-new-landmark-climate-disclosure-rule-proposal (commenting on their 2020 report, Addressing Climate as a Systemic Risk: A call to action for U.S. financial regulators, outlining the systemic risks of climate change and calling on the SEC to mandate climate risk disclosure, among some 50 other regulatory action steps for federal financial regulators to take. Investors with more than $1 trillion in assets under management endorsed the report and sent letters to the heads of various financial regulatory agencies, urging them to adopt the recommendations. In public comments to the SEC, 65% of investors called for GHG emissions reporting of Scopes 1, 2 and 3 (the GHG Protocol categorizes direct and indirect emissions into three broad scopes: Scope 1: All direct GHG emissions. Scope 2: Indirect GHG emissions from consumption of purchased electricity, heat, or steam. Scope 3: Other indirect emissions, such as purchased goods and services).
carbon emission associated with their business activities. These proposed rules aimed to “provide investors with consistent, comparable, and decision-useful information for making investment decisions.” Furthermore, these rules aimed to provide a tool for stakeholders to hold companies’ voluntary commitments to the ground, such as their carbon emission reduction goals and net-zero targets.

The development of climate risk disclosure under the SEC rules shows that a voluntary approach serves as a great tool to introduce new subjects to companies and obtain their attention. Once voluntary measures become common practice among companies, regulating them would be less challenging. This example also indicates that environmental disclosure under the U.S. SEC regulations is primarily from the perspective of protecting investors’ short- and long-term interests under the materiality principle. This principle presumes that investors, as one of the stakeholder groups, have the capacity to help shape a company’s efforts on environmental sustainability.

The materiality principle is also applied in corporate information disclosure in China. Article 12 of the Measures for the Administration of Information Disclosure by


408 Id.

409 See American Sustainable Business Network, SEC’s Director Renee Jones on Climate-Related Disclosures for Investors, YOUTUBE (Apr. 14, 2022), https://youtu.be/ya1MRDdNIUo (The U.S. SEC’s Director Renee Jones also mentioned this important function in a webinar related to the set of proposed rules.).
Listed Companies (2021 Revision) sets a standard that “any information which may have a material effect on investors making value judgments and investment decisions shall be disclosed.” On top of the standard, publicly listed companies shall “ensure the authenticity, accuracy, and completeness of the information disclosed and fair and timely information disclosure.” Under these principles’ guidance, the China Securities Regulatory Commission develops specific rules that require listed companies to disclose corporate information. Besides, as the Chinese government focuses on green growth, the Ministry of Ecology and Environment and the Shenzhen and Shanghai Stock Exchanges have issued laws and guidelines for corporate environmental disclosure that overlap with the environmental aspect of CSR disclosure as discussed in Part 2.1.3.

Through looking at over a decade’s worth of legal development for publicly listed companies’ environmental disclosures, Huang and Le summarized three features: (1) the legislators have stressed the environmental factors from the perspective that could affect

411 Id. at Article 4.
412 Id. at Article 11.
413 Jianqiang Liu, Analysis: Nine Key Moments that Changed China’s Mind About Climate Change, CARBON BRIEF (Oct. 25, 2021), https://www.carbonbrief.org/analysis-nine-key-moments-that-changed-chinas-mind-about-climate-change/ (President Xi came up with the assertion of “lucid waters and lush mountains are invaluable assets” in 2005, which has laid a foundation of the philosophy for Chinese green development. The 18th National Congress of the Chinese Communist Party held in 2012 included ecological development as a major task in the country's overall plan and proposed building a "beautiful China" as a grand goal for ecological progress.).
414 Infra Part 2.1.3.
investment risks and stock price under the CSR concept; (2) companies’ disclosure obligations have been changed from mandatory requirements for a few specific topics to combining voluntary and compliance disclosure with expanding the mandatory requirements’ scope; and (3) environmental disclosure was deemed as one procedural step when a company is listed, refinanced, or involved with major environmental events, and now is regulated as an essential requirement that listed companies must develop reports regularly to disclose such information systematically.  

The second feature highlights the interrelation between voluntary and mandatory corporate environmental information disclosure. China’s current corporate environmental disclosure scheme, on one hand, requires all pollutant-intensive companies to disclose major environmental information, which is primarily about pollution control and management. On the other hand, the scheme encourages companies to share information that is relevant to ecosystem protection, anti-pollution, and corporate environmental responsibilities. Under this scheme, voluntarily made corporate environmental

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416 See Zhongguo Zhengjianhui (中国证监会) [CHINA SEC. REGUL. COMM’N], Guanyu Zhengxie Shisanjie Quanguoweiyuanhui Disici Huiyi di 2413 hao Ti’an Dafu de Han （关于政协十三届全国委员会第四次会议第 2413 号（财税金融类 283 号）提案答复的函） [Letter on the Reply to Proposal No. 2413 (Finance, Taxation and Finance No. 283) of the Fourth Session of the Thirteenth National Committee of the Chinese People’s Political Consultative Conference] (Jul. 30, 2021),
commitments could be within the regulated scope if they are made by high-pollutant companies or if the subject of the commitment falls under the mandatory bracket.

Under this second feature, new subjects have been added to voluntary disclosure over the years that advocate for companies to submit more company information to the public.417 Meanwhile, some previous voluntarily disclosed subjects have been added to the mandatory scope. For example, carbon emissions disclosures have been viewed as a voluntary topic under corporate sustainability in the Corporate Information Disclosure and Format for Listed Companies (2017 version) issued by the China Securities Regulatory Commission.418 A year after the issuance of the new format, about 38.9% of the top 300 stocks traded on the Shenzhen Stock Exchange and the Shanghai Stock Exchange disclosed carbon emissions in their 2018 annual reports.419

In February 2022, with the Administrative Measures for the Disclosure of Corporate Environmental Information (Measures) in effect, corporate carbon emissions

http://www.csrw.gov.cn/csrc/c101800/c1920691/content.shtml (summarizing China’s current framework for environmental information disclosure).
became a requirement for corporate information disclosure. These Measures developed by the Ministry of Ecology and Environment clearly require all companies, including publicly listed companies, to disclose carbon emissions—including the quantity and emitting facilities in their annual reports. Companies included in the national carbon trading schemes must reveal information about annual carbon emissions, calculation methods, and trading allowance usages. Furthermore, these Measures also ask publicly listed companies to disclose the steps they have taken to tackle climate and environmental protection regarding their financial investments, but the Measures do not specify the details of such required information. Almost at the same time, the China Securities Regulatory Commission stated that it plans to develop specific rules for companies to share information about their carbon emissions in the near future. With these laws in place, the public (including investors) is able to monitor the progress of publicly listed companies’ voluntary commitments related to carbon emission reduction.

Overall, existing laws in China and the U.S. have the capacity to hold publicly listed companies’ corporate environmental commitments accountable through information disclosure under certain conditions. However, the ultimate nature of

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420 Supra note 418, Measures for the Administration of Disclosure of Enterprise Environmental Information in Accordance with the Law, Article 12.
421 Id.
422 Supra note 419, Form Guidelines for Legal Disclosure of Enterprise Environmental Information, Article 19.
423 See id. at Article 15.
424 See CHINA SEC. REGUL. COMM’N, supra note 416 (outlining the China Securities Regulatory Commission’s plans to regulate emissions disclosures).
corporate environmental disclosure remains centered around investors’ interests in practices of security exchange. If some corporate environmental commitments are not relevant to investors’ concerns but are essential to public interests, legislation should allow a country’s department of environmental protection (which represents public interests) and security exchange commission (which represents investors’ interests) to seamlessly connect—so the two departments are able to resolve this gray area together.

2.4.4 Corporate Environmental Claims and Greenwashing

The possibility of “greenwashing” is a highly criticized aspect of unilateral corporate commitments. The term greenwashing was first coined in 1986 by prominent environmentalist Jay Westerveld in an essay in which he claimed that the hotel industry falsely promoted the reuse of towels as part of a broader environmental strategy, when, in fact, the act was designed as a cost-saving measure; the irony is that hotels were creating bigger environmental impacts by wasting natural resources in varying ways. Over the years, despite growing interest from academics and professionals, there is no generally accepted definition of greenwashing in the current literature. Currently, the term is

425 See Huang & Le, supra note 415.
427 See e.g., Riccardo Torelli et al., Greenwashing and Environmental Communication: Effects on Stakeholders’ Perceptions, BUS. STRATEGY AND ENV’T 2020, at 1, https://doi.org/10.1002/bse.2373 (noting that greenwashing generally refers to misleading
used to refer to “a divergence” between companies’ claims in their communications on environmental or other CSR issues and the reality that these claims are not followed or supported.428

The cause of greenwashing lies in the fact that companies “take advantage of the natural information asymmetry” between the signaler (companies) and the receiver (external stakeholders such as consumers and investors).429 Greenwashing can damage the benefits of corporate commitments and poses a negative influence on consumer confidence in companies’ claims and green products.

Previous research fleshed out a different taxonomy of greenwashing and the effects of such misleading communications. D.T. de Jong et al. characterized the types of greenwashing as “behavioral-claim greenwashing” (a discrepancy between environmental claims and environmental behavior) and “motive greenwashing” (a discrepancy between communicated and real motives for environmentally friendly behavior).430 The Jong research also differentiated the severity of behavioral-claim greenwashing “between organizations that told the truth, those that told half-lies, and those that lied,” and distinguished motive greenwashing “between organizations that communications that give stakeholders overly positive beliefs about a company’s environmental practices).

429 See Torelli et al., supra note 427, at 4.
acted green on their own initiative and those that took credit for complying with legal environmental obligations.” D.T. de Jong et al. found that consumers react negatively to organizations that lie and half-lie regarding their environmental claims, compared to true green behavior; while companies taking credit for following legal obligations had no distinguishable effect on consumer attitudes. This shows that companies that are not honest about their environmental commitments face the risk of losing their external stakeholders’ trust. Particularly, the Torelli et al. research shows that, when greenwashing is discovered in companies that operate in an environmentally sensitive industry, stakeholders’ reactions are stronger.

To reduce greenwashing, information disclosure remains key. The bar that legislation has set for disclosing information can be different depending on the type of interests and the extent stakeholders need to be protected. For example, the information disclosure requirements for publicly listed companies are designed to guard investors’ interests, as discussed in Part 2.4.3. Meanwhile, requirements can be developed from the perspective of educating and safeguarding the public’s and other stakeholders’ interests, such as information disclosure related to marketing and advertising.

In the U.S., at the federal level, a couple of laws and guidelines tackle greenwashing marketing by requiring all types of companies to use certain words or to

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431 Id. at 40–41.
432 Id. at 39.
433 See Torelli et al., supra note 427, at 15.
434 Supra notes 404–409, and accompanying text.
disclose certain information in a responsible way, otherwise, such voluntary initiatives
could trigger legal compliance actions.

The U.S. Federal Trade Commission is authorized to enforce laws that protect
consumers from false advertising.\(^{435}\) It issued Green Guides in 1992 and revised them in
1996, 1998, and 2012.\(^{436}\) Note that the Green Guides are not a set of rules or regulations;
instead, they are a description of the types of environmental claims the U.S. Federal
Trade Commission may or may not find deceptive under Section 5 of the Federal Trade
Commission Act.\(^{437}\) In practice, companies may refer and use these Guides to explore
opportunities for elaborating new green claims. The 2012 Green Guides includes new
guidance on: (1) use of product certifications and seals of approval; (2) carbon offsets; (3)
“free-of” claims; (4) “non-toxic” claims; (5) “made with renewable energy” claims; and
(6) “made with renewable materials” claims.\(^ {438}\) Feinstein found that each green marketing
law on the state level in some way incorporates the U.S. Federal Trade Commission’s
Green Guides.\(^ {439}\) Further, some states such as New York and California incorporate the
Green Guides within their own specific environmental marketing statutes.\(^ {440}\)

\(^{438}\) Id.
\(^{439}\) See Nick Feinstein, Learning from Past Mistakes: Future Regulations to Prevent Greenwashing, 40 B.C. Env’t Aff’s L. Rev. 229, 246–47 (2013) (providing examples of
state laws mirroring or incorporating the U.S. Federal Trade Commission’s Green
Guides).
\(^{440}\) Id.
Under the authorization of the Organic Foods Production Act, the U.S. Department of Agriculture established the National Organic Program to set national standards for the production, handling, and processing of organically grown agricultural products. The National Organic Program contains detailed regulations regarding the meaning and levels of “organic.” Companies can only claim “made with organic” for their products once they meet those requirements. Other than the above, the federal Lanham Act allows civil lawsuits for false advertising that “misrepresents the nature, characteristics, qualities, or geographic origin” of goods or services. Feinstein noted that the U.S. Patent and Trademark Office has “generally treated environmental terms such as ‘organic,’ ‘sustainable,’ and ‘natural’ as potentially deceptive when attributed to products that do not fit the bill,” and would refuse registration of such a mark.

All these legal requirements help improve consumers’ familiarity with certain seals and green claims. As more green claims are on the rise, the requirements enhance consumers’ ability to identify if a company is doing greenwashing marketing. At the same time, because of these requirements, companies must develop their claims more carefully and communicate relevant information clearly since there is less room for disingenuous corporate claims.

443 Id. at § 6504.
445 Feinstein, supra note 439, at 241.
Similarly, China requires products that claim specific environmental related features to disclose certain verification information. To better manage, verify, and evaluate environmentally friendly products and these claims, China has integrated energy- and water-saving, circular, low-carbon, recycled, organic, and other environmentally friendly products as green products since 2016.\textsuperscript{446} The State Administration for Market Regulation (a national agency) is responsible for releasing green product logos, standard lists, and verification directories.\textsuperscript{447} Only institutions and companies with authorization are able to conduct green product verification.\textsuperscript{448} The laws and directories that standardize various green products are published via a national Green Product Platform managed by the State Administration for Market Regulation.\textsuperscript{449} The public can enter any green product’s certificate number into the system hosted by the platform to verify the product’s authenticity and check if the verification institution is valid.

\textsuperscript{447} Id. \S 3.
\textsuperscript{448} Id. \S 6.
\textsuperscript{449} See Zhongguo Lvse Chanpin Biaoshi Renzheng Xinxi Pingtai (中国绿色产品标示认证信息平台) [China Green Product Verification Information Center], Guojia Shichang Jiandu Guanli Zongju (国家市场监督管理总局)[State Administration for Market Regulation], http://www.chinagreenproduct.cn/GPIA/front (demonstrating the assortment of laws and directories for various green products in China published to the platform).
If companies lie to consumers using marketing claims that involve greenwashing they may be held accountable under existing laws such as the Law on the Protection of the Rights and Interests of Consumers (2013 revised), Advertising Law (2021 revised), and Anti-unfair Competition Law (2019 revised). These laws regulate companies’ false and misleading advertising from the perspective of sharing information about products or services, and how to properly promote them.

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453 Id.
Other than regulations, public media also steps up to educate the public about greenwashing. An influential magazine called the Southern Weekend published a list of greenwashing companies based on their performance on an annual basis since 2010.454 Editors of the magazine stated how the selected companies were greenwashed with examples and details.455 Considering that greenwashing is a relatively new term to many Chinese consumers, the list serves as great educational material to show what kind of corporate environmental behavior could lead to false and misleading advertising.

The above elucidates that existing U.S. and Chinese laws and guidelines focus on the quality of products and services information from the perspective of protecting consumers and maintaining a fair environment for companies to compete. When a product or service does not meet the standard of being “environmentally friendly” or “green” as claimed, these laws can be applied. In the U.S., Detterman et al. noted an uptick in: lawsuits related to companies’ greenwashing behavior; NGO reports; and consumer protection agency actions alleging that some corporate environmental- or sustainability-related statements are overstated, false, deceptive, or misleading.456

454 Wang Fei & Tong Tong (王菲, 童桐), Congxfang Dao Bentu: Qiye “Piaolv” Xingwei de Yujing, Shijian yu Bianjie (从西方到本土: 企业“漂绿”行为的语境、实践与边界) [From the west to the mainland: the context, practice, and boundary of enterprises’ greenwashing behavior], Guoji XinwenJie(国际新闻界) [CHINESE JOURNAL OF JOURNALISM AND COMMUNICATION], page 144–156, No.7, 2020.


types of claims that are more likely to trigger lawsuits include climate change and carbon neutrality, recyclability and compostability, non-toxic, organic, and product origin claims. By comparison, no greenwashing-related lawsuits have been filed in China as of December 31, 2023. This is because greenwashing is relatively new to most Chinese consumers and social groups, plus the design of the green product certification scheme does not leave much room for companies to craft green claims like the U.S. laws permit.

2.5 What is Needed: From Unilateral Corporate Commitments to Future Legislation

As discussed, CSR contains three layers of sustainability: economic, social, and environmental sustainability. Existing legislation in China and the U.S. only directly regulates certain aspects of CSR. In China, even though companies of all sizes are required to adopt CSR, the law has not provided further details or standards to achieve CSR. While in the U.S., most laws focus on social sustainability. Therefore, driven by corporate leadership’s values, financial performance, or various stakeholders, there is a lot of room for companies to interpret environmental sustainability, focus on the environmental subject that matters to them, and make voluntary commitments.

Companies’ unilateral commitments have the potential to create regulation for certain practices. Even if the U.S. and China have taken different routes to transition from

457 Id.
458 After checking the database of China Trial, which includes cases tried by courts at all levels in China.
unilateral corporate commitments to future legislation, this section asserts that there are three essential conditions to this process.

1. A common understanding among social actors is the key.

Due to the U.S. and China’s unique social structures, environmental movements, and awareness development, the countries represent two different ways to transition voluntary corporate action into law.

In the U.S., driven by business ethics, cost-saving, and stakeholder groups, companies’ voluntary activities come first and the legal standard may follow to unify their practices. In this scenario, key social actors, such as the business sector, social organizations, and the majority of the public, have adequate knowledge and share a common understanding of a particular environmental subject. Even if companies organize their own commitments and internal voluntary initiatives, these social actors can actively seek ways to monitor these corporate activities. Such vigorous interactions between different social actors signal a readiness to transition from voluntary action to mandatory. Legislation on the subject can increase efficiency and establish a conduct standard for the business sector. As discussed in Part 2.4.3, the development trajectory of the SEC carbon emission disclosure rule is one prominent example.\(^{459}\) Many companies that are already committed to disclosing their carbon emissions, together with investors and social organizations, urged the SEC to regulate this subject.\(^{460}\)

\(^{459}\) See supra Part 2.4.3.
\(^{460}\) See supra Part 2.4.3.
This scenario does not require all companies in the business sector to take voluntary action as a prerequisite, only some influential companies. These influential companies have lobbied the government to regulate the subject and motivate their competitors and companies from other industries to follow the trend. However, recent development of ESG investing in the U.S. reveals that divergent government stances may dissuade companies from fulfilling their environmental pledges. Particularly, if a government (such as the States of Texas, West Virginia, and New Hampshire) intentionally enacts laws to penalize companies attempting to halt fossil fuel projects, those companies are unlikely to progress their decarbonization investments.\footnote{Tabuchi, see supra note 382.}

Meanwhile in China, when companies’ voluntary commitments and related initiatives are absent, legislation comes first with options to allow companies to act on the new subject, and later these “options” may transition to mandatory requirements. In this scenario, the business sector, social organizations, or the public, may not have a fair understanding of a specific environmental topic in the first place because they are in the knowledge-learning stage of the subject. To protect public interests, the government is responsible for advocating and educating the subject to companies and other social actors. Passing laws that contain clauses that encourage voluntary corporate action ensures companies pay attention to the issue, allows companies to learn and understand the subject, and leaves choices to companies to act. Once companies and other social actors gain knowledge and recognize commonly accepted practices, such voluntary
options may become fully mandatory. The development of corporate environmental information disclosure and CSR in China are examples. They were information that companies could choose to disclose in the previous laws but now become mandatory requirements for certain companies.

The main difference between the U.S. and China routes is whether the society has a shared understanding of a specific subject. Nevertheless, both routes similarly use voluntary action to find common ground among different stakeholders on the subject, laying a foundation for future legislation tackling new trends or improving standards. If we position the three types of motivations (value, performance, and stakeholder-driven) of CSR practices properly in different scenarios, then creating a positive environment to accelerate the development of a common understanding shared among different social actors is possible.

If a society, such as the U.S., has all three types of companies, the first step is to study specific environmental programs from value-driven companies. They can serve as examples to prove making profits in an environmentally friendly way is possible. With the positive results from a value-driven group, performance-driven CSR companies would be highly likely to invest in environmental upgrades. Once the trend is picked up by external stakeholders, such as media, customers, and social organizations, these social actors can pressure stakeholder-driven companies to join the movement. These companies are likely to act to remain competitive. During this process, the subject would

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462 See supra Part 2.2.
be exposed to and discussed by different social actors. Acknowledging that divergent perspectives on environmental and climate matters between political parties (specifically, Republicans and Democrats) may put companies that want to go green in a dilemma and pose challenges in achieving a common understanding.

In the case of the absence of value- and performance-driven companies, such as in China, the government and investors should step up to urge companies to focus on the subject and take voluntary actions accordingly via incentives and knowledge support. Public media and social organizations should support such government advocacy to educate companies and the public about the matter, which would push more companies to pay attention to the subject.

2. Encouraging effective commitments through proper evaluation criteria.

Once a commitment is made, it does not naturally imply a shift in emphasis to implementation and outcomes. Unilateral corporate commitments’ advantages and benefits could be undermined if companies did not materialize or greenwash their commitments. Allowing external stakeholders to measure these commitments’ authenticity and effectiveness is necessary. The ultimate criteria for measuring voluntary action’s effectiveness should be whether it has helped boost the interaction between different social groups on the subject.

Through abstracting the key aspects in the process of commitment development, this chapter proposes using a set of four indicators to evaluate: company leadership’s willingness, commitment’s content, stakeholder participation, and the quality of information disclosure. Each indicator can be further examined through two or three sub-
indicators. Specific questions can be developed to understand how these sub-indicators can be applied in practice (see Table 2.1 in Part 2.3). The proposed evaluation framework takes different social actors’ interactions and mutual impacts into consideration as well. They can measure corporate voluntary commitments’ authenticity and effectiveness in different scenarios.

Furthermore, unlike the conventional way that directly compares the solid numbers of voluntary programs and mandatory requirements’ performance results, the proposed framework has the flexibility to include the information that is difficult to quantify or collect within a relatively short time frame during the evaluation process, such as management structure and company culture.

3. Understanding and regulating supporting activities is important.

Supporting activities are behaviors that support companies to commit to authentic and environmentally friendly practices. If these activities can be identified, studied, and regulated, then they would contribute to increasing the authenticity and effectiveness of corporate commitments.

To evaluate the gaps in existing regulated supporting activities,\textsuperscript{463} adopting the same proposed evaluation framework for unilateral corporate commitments is necessary since the goal of supporting activities is to encourage companies to implement their voluntary commitments. Using the four indicators as a baseline to examine and compare existing laws that support and monitor unilateral corporate commitments in the U.S. and

\textsuperscript{463} See supra Part 2.4.
China, we can see that these laws currently concentrate on some aspects but not others (see Table 2.3).

<table>
<thead>
<tr>
<th>Proposed Metrics &amp; Existing Laws</th>
<th>Corporate Code of Ethics (“CCE”)</th>
<th>Directors’ Fiduciary Duties</th>
<th>Disclosure Requirements for Publicly Listed Companies</th>
<th>Corporate Claims &amp; Anti-Greenwashing</th>
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</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td>The Willingness of the Company Leadership</td>
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<tr>
<td><strong>Company Culture</strong></td>
<td>U.S.: public companies are required to develop and disclose CCEs. Environmental goals (together with other CSR commitments) built in. China: released guidelines to help companies develop CCEs. U.S. &amp; China: companies use legal requirements as a baseline for CCEs.</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Company Structure</strong></td>
<td>N/A</td>
<td>N/A</td>
<td>U.S. SEC: company leadership’s structure.</td>
<td>N/A</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>China SRC: publicly listed and unlisted companies’ management structure.</td>
<td></td>
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<tr>
<td>The Content of The Environmental Commitments</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Commitment Topics</td>
<td>See “Company Culture”</td>
<td>U.S. &amp; China: the nature of fiduciary duties can embrace new situations and thus prompt directors to be alert. Incorporating climate risks and ESG are two recent examples.</td>
<td>U.S. SEC: 1. requires companies to disclose their corporate material impacts, voluntary commitments would be included if they are associated with material impacts. 2. climate risks and GHG emissions (the newly proposed disclosure rule)</td>
<td>U.S. &amp; China: products and services need to meet certain standards to use certain words such as “environmentally friendly” and “green.” The number of greenwashing related lawsuits has increased in the U.S., but no such cases have been filed in China yet.</td>
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<tr>
<td>Metrics for Progress Check-in</td>
<td>N/A</td>
<td>U.S. &amp; China: not clear, depending on companies’ interpretations.</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Stakeholder Engagement</td>
<td></td>
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<tr>
<td>Opportunities for Stakeholder Participation</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Quality of Information Disclosure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reporting Standard</td>
<td>N/A</td>
<td>N/A</td>
<td>U.S. &amp; China: both countries’ security exchange commissions have specific reporting requirements on content and format.</td>
<td>U.S. &amp; China: depending on which standard the company is adopting, product/service information could be included.</td>
</tr>
</tbody>
</table>
Table 2.3: How existing laws regulate the proposed indicators for measuring CSR initiatives’ effectiveness

Under the “Company Leadership’s Willingness,” company culture is reflected in the requirement of developing and disclosing CCEs. This is one way to urge companies to incorporate environmental awareness into their internal rules and let the public supervise if what the company outlined in the CCEs aligns with their behaviors. Meanwhile, publicly listed companies need to provide information on their company structures, which could reveal how companies develop and manage their environmental-related agendas.

“Content of The Environmental Commitments” proposes that existing legal requirements of directors’ fiduciary duties, publicly listed companies’ information
disclosure, and corporate claims can prompt companies to explore and develop voluntary commitments to different environmental issues. Although, not all the laws discussed in Part 2.4 require companies to establish and disclose metrics to measure self-made commitments’ progress.464

The “Quality of Information Disclosure” indicator is reflected in the laws of corporate claims, anti-greenwashing, and publicly listed companies’ corporate information. Legislators in both countries have primarily focused on publicly listed companies.465 However, the information the government requires these companies to disclose is related to the stages of corporate commitment implementation and monitoring, but information related to the design stage is seldom seen.

Meanwhile, no existing laws explicitly require any stakeholder participation in companies’ commitment development process. Legislators in the U.S. and China should give attention to the indicator of “Stakeholder Participation.” Issues related to stakeholder participation include, but are not limited to: whether stakeholder participation should be included in the company’s operating agreements, what issues and stage stakeholders have to participate to voice their opinions, what accounts for valid stakeholder engagement, whether and under what conditions that company leadership can bypass the results from stakeholder engagement, etc.

464 Id.
465 See discussion supra Parts 2.4.3 and 2.4.4.
Voluntary Environmental Programs Organized by Civil Society Organizations

Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has.

– Margaret Mead

A civil society organization (CSO) is a legal entity whose aims are neither to generate profits nor to seek to govern power but to unite people to advance shared goals and interests. While specific descriptions may vary across institutions or countries, typical CSO examples include non-governmental organizations (NGOs), non-profit

466 Margaret Mead (1901-1978) was an American cultural anthropologist.


468 After witnessing the changes and evolvement of various CSOs' roles in social development, some international organizations recognized that NGOs are a type of CSO. For example, the Asian Development Bank stated the following in its 2008 Staff Guide: “[Asian Development Bank] has traditionally used the term ‘NGO’ almost synonymously with ‘CSO’ so as to include all not-for-profit organizations that are independent of the State. Nowadays the term ‘NGO’ refers more narrowly to professional, intermediary, and nonprofit organizations that provide or advocate the provision of services relating to economic and social development, human rights, public welfare, or emergency relief.” Id. at 3. Although the specific scope of an NGO still varies, the minimum requirement is that it is not established or operated by governmental organs. Furthermore, multiple definitions provided by the key intergovernmental organizations (such as the World Bank and the Asian Development Bank) highlight NGOs’ other features, such as “nonprofit,”
media, charitable organizations, faith-based organizations, professional associations, labor unions, associations of elected local representatives, foundations, and policy development and research institutes.\textsuperscript{469}

When discussing the CSO sector, it’s impossible to ignore the concept of civil society. In Western society, the word “society” meant association with one's fellows in early usage, and no distinction was made between state and society at that time.\textsuperscript{470} Locke’ idea of civil society was a political union based on an implicit consensual arrangement that people are willing to give up life in the state of nature and set up a government in

\textsuperscript{469} Followed by the question “Which of the following best describes your civil society organization (CSO),” a United Nations organized survey offered a wide range of organization types for respondents to choose from. The wide spectrum of options further indicated that the United Nations started using the term CSO as a higher-level category to encompass NGOs and other nonstate organizations. See U.N., UNDESA SURVEY OF CIVIL SOCIETY ORGANIZATIONS 4 (2012), available at https://www.un.org/en/ecosoc/qcpr/pdf/cso_survey_annex_8_june_2012.pdf; see ASIAN DEVELOPMENT BANK, supra note 467, at 2-4.

order to guarantee their natural rights: life, liberty, and estate (or property). Before the Enlightenment, the terms of political and civil society were interchangeable in the era of Hooker, Hobbes, and Locke. By the beginning of the nineteenth century, the distinction between state and civil society became well accepted.

Through reviewing the history of the idea of civil society, DeWiel pointed out that the concept of civil society has emerged with three essential features in the modern society setting: (1) civil society represents the realm of public institutions that are separate from the state, highlighting civil society's independence; (2) civil society is its continued interdependence with the state; and (3) civil society includes a recognition of value pluralism, ideological diversity and multiculturalism. In particular, independence and value pluralism allow people to take the initiative to form CSOs and use these organizations to represent and voice their interests and benefits. According to a survey conducted by the United Nations’ Department of Economic and Social Affairs in 2012, CSOs mainly focus on education (56%), gender equality (49.5%), health (48.4%), poverty reduction (45.1%), human rights and rule of law (44.5%), and environment and sustainable development (including climate change) (33.1%). These topics are public interest issues.

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472 DeWiel, see supra note 470, at 12.
473 Id. at 24.
474 Id. at 34-36.
475 U. N., see supra note 468, at 17.
CSOs’ interdependence with government is reflected in two aspects. First, the legal status of CSOs hinges on government recognition in the country where they are registered, which is a dominant factor determining the sector’s development in the country. In the U.S., influenced by the idea of civil society, Americans have had the mindset and tradition of voluntarily organizing themselves to address their common problems for over two centuries.\footnote{See Wells King, Vijay Menon & Robert Bellafiore, \textit{The Space Between: Renewing the American Tradition of Civil Society}, U.S. CONG.-J. ECON. COMM. (Dec. 18, 2019), available at https://www.jec.senate.gov/public/index.cfm/republicans/analysis?id=78A35E07-4C86-44A2-8480-BE0DB8CB104E} CSOs can choose to formally incorporate and register as nonprofit organizations under state laws.\footnote{According to the U.S. Department of State, “not all NGOs in the United States are incorporated. It is remarkably easy to form a charitable entity in the United States. A person can create a charitable trust simply by executing and delivering a deed, contract, or other instrument conveying the trust property to another person (or even to him/herself) in trust for the charitable purpose. No government approval is required to form the trust beyond the standard requirements for signing a contract or deed conveying property; however, many U.S. states require all NGOs formed for religious, educational or other charitable purposes to register with a state charity official, particularly if it will be soliciting funds from the public.” \textit{See Non-Governmental Organizations (NGOs) in the United States}, U.S. DEP’T STATE, Fact Sheet (Jan. 20, 2021), available at https://www.state.gov/non-governmental-organizations-ngos-in-the-united-states/#ftn1 (last visited Oct. 4, 2023).} As of 2016, over 1.5 million nonprofit organizations representing various causes are operating in the U.S.\footnote{The Nonprofit Sector in Brief, \textsc{National Center for Charitable Statistics} (Jun. 18, 2020), available at https://nccs.urban.org/project/nonprofit-sector-brief (last visited Oct. 5, 2023).}

In China, even though a small number of organizations that would have qualified as CSOs in modern days appeared in the Ming (1368-1644) and Qing (1644-1912) Dynasties, the society was dominated by the culture built by blood relationships at the
time being and thus lacked the soil to cultivate CSOs like the Western society. After the founding of the People's Republic of China and before the Reform and Opening up policy, the Communist Party of China was a party of "overall dominance," controlling various important resources and omnipotently dominating the highly homogeneous government and society. Adopting the Reform and Opening-up policy in the 1980s accelerated the separation between government and society; plus, government downsizing left space for Chinese CSOs to grow. Due to legislative changes (to be discussed in the following sections), China’s CSO sector experienced rapid growth despite being a late starter. As of the end of 2021, the country's total number of social organizations was 0.9 million, an increase of 0.86 percent compared to the previous year.

479 See Tang Wenyu (唐文玉), Zhongguo Shehuizuzhi Fazhan de Lishibianqian yu Dangdaizouxiang (中国社会组织发展的历史变迁与当代走向)[The Historical Evolution and Contemporary Development of Chinese Social Organizations], Xueshu Jie (学术界)[J. ACAD.], (07) 2021, 50-60, available at https://mp.weixin.qq.com/s/O7fKcrRVplfsBUEoh3IROQ

480 Id.

481 See Id; Also see Luo Jing (罗婧), Cong Tuanjiexing Zuzhi, Xingzhengxing Zuzhi dao Zhilixing Zuzhi—1949 nian Yilai Shehuizuzhi de Bianqianlishi (从团结型社会组织、行政型社会组织到治理型社会组织——1949年以来社会组织的变迁历史)[From solidarity social organizations, administrative social organizations to governance social organizations - the history of changes in Chinese Social Organizations since 1949], 清华大学学报(哲学社会科学版) [J. TSINGHUA U. (PHIL. & SOC. SCI.)], Vol.3, 2020.

Second, CSOs often rely on and leverage governmental resources to develop their activities. For a long time, CSOs were deemed a sector dominated by NGOs, which had been viewed as opposed to governments and businesses, but such stereotypes started changing in the early 2000s.\textsuperscript{483} While NGOs still actively monitor governments and businesses’ behaviors through lawsuits,\textsuperscript{484} formally organized and more loosely networked CSOs are increasingly involved in partnerships with the public and private sectors, and are engaged in official consultation processes of multilateral fora.\textsuperscript{485} The same United Nations survey mentioned above shows that half of CSO respondents were United Nations’ cooperating or implementing partners within larger programs of cooperation with the country where the CSO is located.\textsuperscript{486} Other intergovernmental organizations, such as the World Bank, have also engaged CSOs for advocacy, policy dialogue, consultations, information-sharing, operational collaboration, and partnerships.\textsuperscript{487} Meanwhile, CSOs have proactively created voluntary initiatives addressing environmental and social concerns, involving businesses, local governments, and individuals at both national and local levels.

The increasing number of CSOs, their active participation, and new partnerships with the government and business sectors have blurred the boundaries between sectors

\textsuperscript{484} U.N. Environment Programme, \textit{supra} note 380 (climate litigation is very popular in recent years).
\textsuperscript{485} \textit{WORLD ECON. F., see supra} note 483 (\textit{The Future Role of Civil Society}), at 7.
\textsuperscript{486} U.N., \textit{supra} note 468, at 22.
and allowed them to experiment with new organizational forms. According to the World Economic Forum, CSOs have played a broad spectrum of roles in society, including:

- **Watchdog**: holding institutions to account, promoting transparency and accountability;
- **Advocate**: raising awareness of societal issues and challenges and advocating for change;
- **Service provider**: delivering services to meet societal needs such as education, health, food and security; implementing disaster management, preparedness and emergency response;
- **Expert**: bringing unique knowledge and experience to shape policy and strategy, and identifying and building solutions;
- **Capacity builder**: providing education, training and other capacity building;
- **Incubator**: developing solutions that may require a long gestation or payback period;
- **Representative**: giving power to the voice of the marginalized or under-represented;
- **Citizenship champion**: encouraging citizen engagement and supporting the rights of citizens;

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488 **World Econ. F.**, see supra note 483, at 5.
489 *Id.* at 9.
Solidarity supporter: promoting fundamental and universal values;
Definer of standards: creating norms that shape market and state activity.

These roles empower CSOs to “influence governmental and corporate agenda-setting to include and promote the regulatory objectives [that they advocated].”

Considering existing literature focuses on individual organizations as case studies when analyzing the CSO sector, this chapter uses program-level analysis to examine voluntary environmental programs (VEPs) developed, implemented and monitored by CSOs (CSO-organized VEPs), in the context of the U.S. and China’s interpretation of the ideas of “civil society” respectively. Since most academic and educational institutions participate in CSO-organized VEPs as supporting partners instead of the lead organizer, VEPs organized by these institutions are excluded from the research and discussion scope.

3.1 Key Civil Society Organizations

NGOs, philanthropy groups, industrial associations, and local community groups are the main CSO-organized VEP organizers or contributors. The definitions and legal status of these terms vary in countries and the international community.

In the following sub-sections, the author will examine and compare the relationship between CSOs and relevant concepts used in the U.S. and China (refer to Table 3.1). This chapter uses generic terms such as CSOs, NGOs, and philanthropy groups if the referred content is generic in both countries.

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Table 3.1 the relationship of CSO relevant concepts in the U.S. and China

3.1.1 The Forms of CSO and NGO in Domestic Legislation

The terms CSO and NGO and their relationship are more commonly accepted among international organizations as discussed. At the national level, the U.S. and Chinese laws use other concepts to refer to similar meanings represented by these terms.

The U.S.
The legislation at federal and state levels uses “nonprofit organizations,” "tax-exempt organizations" and other similar terms to grant benefits to qualified organizations like NGOs.

Under the federal law, “nonprofit organization” is defined as a tax-exempt organization described in 26 U.S.C. § 501(c)(3) (hereafter, a 501(c)(3) nonprofit) under the U.S. tax law, or “any not-for-profit organization which is organized and conducted for public benefit and operated primarily for charitable, civic, educational, religious, welfare, or health purposes and which does not practice any action which constitutes a hate crime” under the Hate Crime Statistics Act (28 U.S.C. § 534). It shows that nonprofit organizations under federal laws focus on public interests, consistent with NGOs’ feature.

Meanwhile, the definition of "nonprofit organization” varies by state. California, New York and Massachusetts are the leading states for nonprofit organizations by the number of assets and organizations, this section uses these states as examples to demonstrate their different definitions of “nonprofit organizations.”

In New York, nonprofit organizations are called “not-for-profit corporations.” A not-for-profit corporation is “a corporation (1) formed under this chapter, or existing on its effective date and theretofore formed under any other general statute or by any special

\[\text{References:}\]

493 See supra note 468.
act of this state, exclusively for a purpose or purposes, not for pecuniary profit or financial gain, for which a corporation may be formed under this chapter, and (2) no part of the assets, income or profit of which is distributable to, or ensures to the benefit of, its members, directors or officers except to the extent permitted under this statute."^495 Not-for-profit organizations may or may not be for charitable purposes. In other words, not-for-profit corporations do not have to be formed for public interests, which have a similar scope as for an CSO.

California categorizes nonprofit organizations into three corporate forms: (1) public benefit corporations must be formed for public or charitable purposes and may not be organized for the private gain of any person. A public benefit corporation cannot distribute profits, gains, or dividends to anyone. (2) mutual benefit corporations may not be formed exclusively for charitable purposes. This type of nonprofit organization is often for the benefit of its members; and (3) religious corporations are formed for religious purposes and are usually exempt from income tax. Among the different types of nonprofits, public benefit corporations are closest to the concept of NGO.

Instead of providing a concrete definition of “nonprofit organization,” the law of Massachusetts focuses on defining such organizations through incorporation requirements, including the founder of the corporation shall be eighteen years old or

[^495]: N.Y. Not-For-Profit Corp. Law § 102(a)(5) (McKinney 2021).
[^496]: N.Y. Not-For-Profit Corp. Law § 102(a) (McKinney 2021).
above, the corporation “shall have no capital stock,” and specify its forming purposes.\textsuperscript{498} The organization’s forming purposes shall fall under one or more of the fourteen categories, which range from public interest topics to educational and religious support.\textsuperscript{499} The term nonprofit organization in Massachusetts is similar to the CSO concept.

Although the definition and scope of nonprofit organizations may differ at the state level, they share some similarities: (1) nonprofit organizations are required to register and perform appropriately under the law; (2) such organizations should be equipped with a proper management structure (such as establishing by-laws, key positions, etc.). Salamon summarized that various nonprofit organizations share five basic characteristics: formal, private, non-profit-distributing, self-governing, and voluntary.\textsuperscript{500} These characteristics reflect the ultimate reason for states to define the term nonprofit organization within their capacity—to help government identify organizations that would be exempt from income tax.\textsuperscript{501} In other words, the term nonprofit organization is adopted from the perspective of tax-related activities.

\textsuperscript{498} M.G.L.A. 180 § 3(West 2021).
\textsuperscript{499} M.G.L.A. 180 § 4(West 2021).
\textsuperscript{501} \textit{In} the U.S., a nonprofit organization would need to apply for tax-exempt status at both the federal and state level. \textit{See} \textit{Understanding Nonprofit Status and Tax Exemption}, \textit{Community Tool Box}, https://ctb.ku.edu/en/table-of-contents/finances/managing-finances/nonprofit-status-tax-exemption/main (last visited Dec.29, 2023)
As shown by the laws in California, New York, and Massachusetts, the scope of nonprofit organizations is similar to the term CSO, while the federal law narrows down the scope of nonprofit organizations to mirror the term NGO.

**China**

Although the CSO sector emerged late in China, the central government has not stopped exploring its path to develop this sector. In 1998, the issuance of the Regulation on Registration and Management of Social Groups provided a legal basis to register and manage social groups. In 2006, to further boost the civil society sector’s development, the central government (the Central Committee of the Communist Party of China) adopted the Resolutions on Several Major Issues Regarding the Building of a Harmonious Socialist Society (The Resolutions). The Resolutions first introduced the term "social organization" and systematically discussed the cultivation, development, supervision and management of social organizations, formally establishing the CSO

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502 Shehui Tuanti Dengji Guanli Tiaoli (社会团体登记管理条例) [Regulation on Registration and Management of Social Groups], published by the State Council at the 8th ordinary session on September 25, 1998, and took effect on October 25, 1998. Revised by the State Council on February 6, 2016, and effective same date. Some translated “Shèhuì tuántī” as Social Organizations. To differentiate the term “Shèhuì zǔzhī,” this chapter refers “Shèhuì zǔzhī” as social organizations and “Shèhuì tuántī” as social groups.

concept in China. Social organizations include “social groups, foundations, and private non-enterprise units that have been registered with the civil affairs departments at all levels.” It provides a glimpse of how the Chinese government understands and interprets the term CSO in law.

Social groups are “non-profit social organizations formed voluntarily by Chinese citizens to realize a shared objective of their members and carry out activities in accordance with their charter.” Divided by different shared objectives, social groups include two types: (1) for public interests such as China Charity Foundation, and (2) for group members' benefit like industrial associations. Under Chinese laws, all organizations other than state organs may join social groups as members. The Civil Affairs Department of the State Council and the Civil Affairs Departments of local

506 See supra note 502, Regulation on Registration and Management of Social Groups, Article 2.
508 See supra note 506.
people's governments at or above the county level are the registration and management organs of social groups at the corresponding levels; some organizations authorized by the State Council or local government at county level and above serve as the relevant leading units to manage social groups in related trade, scientific or other professional areas.\textsuperscript{509} Therefore, the scope of the term social group includes organizations like NGOs.

Chinese laws did not define nonprofit organizations until the issuance of the Civil Code in 2020. Article 87 of the Civil Code states that "a non-profit legal person is a legal person formed for public welfare or any other non-profit purpose without distribution of profits to its investors, promoters, or members. Non-profit legal persons include but are not limited to public institutions, social groups, foundations, and social service organizations."\textsuperscript{510} It is clear that “nonprofit organizations” include organizations formed and operated by the government (such as public institutions and social service organizations) and non-governmental groups (such as social groups and foundations). In contrast, the scope of nonprofit organizations in the U.S. excludes governmental entities. Therefore, the term nonprofit organization has a different intension and extension in the U.S. and China.

\textsuperscript{509} Zhonghuarenmin Gongheguo Minfadian (中华人民共和国民法典) [Civil Code of the People's Republic of China], adopted at the 3rd Session of the Thirteenth Nat’l People's Cong. of the People's Republic of China on May 28, 2020, Article 6.
\textsuperscript{510} Id. Article 87.
3.1.2 Philanthropy Groups

Philanthropy groups are one type of nonprofit organization managed by domestic laws.\(^{511}\) Although some philanthropy groups, such as foundations, do not establish or operate VEPs, the role of independent funders may allow them to influence the agendas, activities, and issues supported by organizations working in the environmental arena.\(^{512}\) These funded agendas, activities and issues are selected by foundations’ “calculated” strategies to match their missions and values.\(^{513}\) Besides, foundations are “field-builders” who can deploy materials and non-material resources to “bring a number of different actors (often with different interests, ideologies, and organizational forms) into routine contact with one another, in pursuit of an at least partially shared project.”\(^{514}\) The role of field-builder enables foundations to pose a broader impact on other social actors in environmental governance.\(^{515}\) Metaphorically speaking, philanthropy groups that provide funding serve as “an invisible hand” that “directs” nonprofits to work on certain issues; nonprofits are philanthropy groups’ feet that develop and implement projects by utilizing granted resources.

The U.S.

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\(^{511}\) Supra Parts 3.1.1 and 3.1.2.


\(^{513}\) Id.

\(^{514}\) Id. at 690.

\(^{515}\) Id.
The U.S. laws do not define “philanthropy.” According to the Webster's Dictionary, philanthropy means (1) “goodwill to fellow members of the human” reflected on “active effort to promote human welfare;” (2) an act or gift done or made for humanitarian purposes; and (3) an organization distributing or supported by funds set aside for humanitarian purposes.\(^{516}\) Considering this chapter aims to explore CSO-organized VEPs and organizations that fund these VEPs, the third meaning of “philanthropy” is adopted. Charitable organizations (also known as 501(c)(3) nonprofit organizations) are philanthropy groups.\(^{517}\)

Charitable organizations can be divided into private foundations and public charities.\(^{518}\) The main difference is the source of received contribution. Private foundations are generally financially supported by one or a small handful of sources—an individual, a family, or a corporation.\(^{519}\) While public charities have an active fundraising program and receive contributions from many sources such as hospitals, schools,


\(^{517}\) _Exemption Requirements - 501(c)(3) Organizations_, U.S. INTERNAL REVENUE SERV., https://www.irs.gov/charities-non-profits/charitable-organizations/exemption-requirements-501c3-organizations (last visited Oct. 6, 2023) (It states that organizations described in section 501(c)(3) are commonly referred to as charitable organizations. Such organizations must not be organized or operated for the benefit of private interests).

\(^{518}\) A private foundation is any domestic or foreign organization described in section 501(c)(3) of the Internal Revenue Code except for an organization referred to in section 509(a). Therefore, charitable organizations are divided into two types under the definition structure: public charities and private foundations. See 26 U.S. Code § 509(a); Public Charities, U.S. INTERNAL REVENUE SERV., https://www.irs.gov/charities-non-profits/charitable-organizations/public-charities (last visited Dec.18, 2023).

\(^{519}\) Id.
churches, and organizations that make grants to others.\textsuperscript{520} The second difference is their organizational activities. Private foundations’ primary activity is to provide grants to other charitable organizations and individuals, while public charities focus on operating charitable programs.\textsuperscript{521}

Private foundations are significant grant givers in the U.S.. They provided approximately 16-20\% of total charitable giving between 2018-2021.\textsuperscript{522} By comparison, donations from corporations only range from 3.7\% to 4.3\% in the same period.\textsuperscript{523} However, the ratio of total donations to environmental causes is small. In 2020, climate mitigation nonprofits received only 0.4\% of total charitable dollars.\textsuperscript{524} In 2021, only 3\% of the total charitable giving went to support environmental and animal causes,\textsuperscript{525} including biodiversity, parks community/economic development, energy and climate, water and land resources.\textsuperscript{526}

\textbf{China}

\textsuperscript{520} \textit{Id.}
\textsuperscript{521} \textit{Id.}
\textsuperscript{523} \textit{Id.}
\textsuperscript{524} Michael Thomas, \textit{Environmental nonprofits receive less than 2\% of charitable donations, Carbon Switch, available at \url{https://carbonswitch.com/analysis-of-environmental-giving/} (last visited Oct. 6, 2023)
\textsuperscript{525} \textit{Giving USA, Giving USA Report (2022), available at \url{https://givingusa.org/wp-content/uploads/2022/06/GivingUSA2022_Infographic.pdf
“Philanthropy” and “charity” share the same word (pronounced as “Ci Shàn”) in Chinese. The Charity Law promulgated in 2016 literally translated “Ci Shàn” as “charity” in English. Article 8 of the Charity Law states that “for the purpose of this Law, charitable organizations mean nonprofit organizations that are formed in accordance with the law, comply with the provisions of this Law, and are aiming at conducting charitable activities for the public. Charitable organizations may adopt the forms of organization such as foundations, social organizations and social service agencies.” Under the provision, “charitable organizations” is an organizational attribute instead of a specific organization form in Chinese law.

Social organizations, as a common form of charitable organization regulated by Chinese laws, is discussed in Part 3.1.1. Social service agencies, such as schools, museums, and hospitals, can be established by government, citizens, corporations, or other organizations. Foundations are defined as “the non-profit legal person established

529 The term social organization is discussed in the Section of Introduction and Part 3.1.1.
by making use of the property donated by natural persons, legal persons, or other organizations with the purpose of pursuing welfare undertakings.”531 Similar to social organizations, foundations are required to register under the Department of Civil Affairs of the State Council and the Departments of Civil Affairs of the people's governments of the provinces, autonomous regions, and municipalities.532

Based on the principle of soliciting contributions from the general public, foundations are categorized into public offering foundations and non-public offering foundations.533 Public offering foundations are further divided into national public offering foundations and regional public offering foundations, pursuant to the geographical scope of the donation.534 Some public offering foundations have governmental background and are positioned to support local NGOs’ development, such as the China Foundation for Rural Development, the China Social Welfare Foundation and the China Social Assistant Foundation.535

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531 Jijinhui Guanli Tiaoli (基金会管理条例) [Regulation on Foundation Administration], adopted at the 38th executive meeting of the State Council on February 4, 2004, and entered into effect on June 1, 2004. Article 2.
532 Id. Article 6.
533 Id. Article 3.
534 Id.
535 Xu Yongguang (徐永光), Bazhong Xingtai Jijinhui zai Zhongguo (八种形态基金会在中国) [Eight Forms Foundation in China], Nandu Gongyi Jijinhui (南都公益基金会
2021 mentioned that public offering foundations primarily focus on issues related to children, youth and public safety; and private offering foundations concentrate more on public welfare. Domestic foundations play a crucial role in funding environmental and social organizations in China. They are a primary source of project funding, alongside governmental funding (through service procurement) and corporate donations.


538 In 2021, total charitable giving was 1,450 billion yuan (equivalent to $211 billion in US dollars). Even though the total charitable giving was reduced by 5.48% compared to 2020, the total amount of donations from corporations surpassed previous years, especially the large domestic corporations’ donation took approximately 16.57% of the total charitable giving in 2021. Noted that this estimated ratio did not include the sum of other individual corporate givings under the 1-million-yuan threshold. See Lu Zhengwei (鲁政委), 三次分配的 “源”与“流”, Diyi Caijing (第一财经)[YICAI MEDIA] (Sep. 1, 2021), available at https://www.yicai.com/news/101159682.html; Zhongguo Cishanjia (中国慈善家)[China Philanthropist], 2022 Cishan Lanpishu Fabu: Shehuijuanzeng Zongliang Luejiang, Gaojingzhi Renqun Juanzeng Zengzhang yu Sancheng (2022《慈善蓝皮书》发布：社会捐赠总量略降，高净值人群捐赠增长逾三成)[The 2022 "Charity Blue Book" is released: the total amount of social donations has dropped...
Environmental conservation stands out as the foremost environmental giving cause in China. According to the White Paper on Public Welfare Funding for Biodiversity in China, the environmental public welfare donations were in total of 2.523 billion yuan between 2016 and 2020.\textsuperscript{539} 69\% was used for biodiversity protection (including ecological restoration), which was much higher than other environmental causes such as pollution prevention, energy and climate change.\textsuperscript{540} The White Paper pointed out that donations for biodiversity conservation have also maintained a rapid growth rate.\textsuperscript{541}

From the above, foundations are a crucial funding source for developing CSO activities in the U.S. and China. Biodiversity conservation, energy, and climate change are the top environmental causes in terms of donations received.

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\textsuperscript{539} Chen Yanling (陈妍凌), Jinqicheng Juanzeng Yongyu Shengwuduoyangxing Baohu (近七成捐赠用于生物多样性保护) [Nearly 70\% of donations are used for biodiversity protection], Zhongguo Huanjing Bao (中国环境报) [CHINA ENV’T NEWS] (Oct. 20, 2021), at 6, available at \url{http://49.5.6.212/html/2021-10/20/content_70631.htm} (last visited Mar. 24, 2023).

\textsuperscript{540} \textit{Id.}

\textsuperscript{541} \textit{Id.} The growth rates reached 21\%, 35\%, 43\% and 29\% respectively from 2016 to 2020.
3.1.3 Industrial Associations

Many industrial associations are in support of developing VEPs. They are another group of VEP organizers worth examining. Existing laws in the U.S. and China categorize industrial associations as nonprofit organizations and social groups, respectively.

The U.S.

At the federal level, industrial associations are referred to as “business leagues,” known as the 501(c)(6) organization of the Internal Revenue Code. A business league is an association of persons with some common business interest, to promote such common interest and not to engage in a regular business of a kind ordinarily carried on for profit. With a similar purpose as business leagues, chambers of commerce and boards of trade are associations of people who share a common business interest and want to promote it. However, chambers of commerce and boards of trade focus on improving the economic conditions of all businesses in a certain area or community, rather than a specific line of business.


26 U.S. Code § 501(c)(6)-l.

Id.


Id.
A business league’s characteristics include:  

(1) It must be an association of persons having some common business interest and its purpose must be to promote this common business interest; (2) It must be a membership organization and have a meaningful extent of membership support; (3) It must not be organized for profit; (4) No part of its net earnings may inure to the benefit of any private shareholder or individual; (5) Its activities must be directed to the improvement of business conditions of one or more lines of business as distinguished from the performance of particular services for individual persons; (6) Its primary activity does not consist of performing particular services for individual persons; and (7) Its purpose must not be to engage in a regular business of a kind ordinarily carried on for profit, even if the business is operated on a cooperative basis or produces only sufficient income to be self-sustaining.

Business leagues’ characteristics are similar to NGOs in many aspects, yet the main difference is that business leagues focus on “a common interest of a business nature that the organization promotes” instead of public interests. Although the environmental service industry’s common business interests may overlap with public interests, the industry associations’ core interest is essentially about their members.

Like other nonprofit organizations, industrial associations must register at the state level. The U.S. laws do not pose a limit on the number of trade associations existing within an industry. There is no governmental data regarding the total number of trade and

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548 Id. at K-6.
professional associations registered in the U.S.. In 2021, the Internal Revenue Service received about one thousand applications for establishing new business leagues, of which indicate the dynamics of this type of organization. Some private market research data shows that the number of trade and professional organizations in the U.S. has remained steady between 2018 and 2023.

China

Defined in the Industry Association Price Action Guidelines, industry associations generally refer to the legal persons that consist of economic organizations and individuals (known as members) in the same industry, provide industry services and self-manage with discipline, and are legally registered with the association registration management organs of the people's governments at or above the county level.” If an organization named after "society", "chamber of commerce", "trade association", "federation", "promotion association," or "alliance", etc., and meets the above definitions, it is qualified as an industrial association.

As a type of social group, Chinese industrial associations are still at the development stage as shown in two aspects. First, the central government issued guidance

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549 U.S. INTERNAL REVENUE SERV., DATA BOOK 2021-OCTOBER 1, 2020 TO SEPTEMBER 30, 2021, at 28 (2021) (The source shows that 973 applications submitted to be qualified as business leagues, and 884 got approved in 2021).
551 Hangye Xiehui Jiage Xingwei Zhinan (行业协会价格行为指南) [Industry Association Price Action Guidelines], developed and published by the Nat’l Dev. and Reform Comm’n on July 20, 2017, at 1.
552 Id.
to promote the reform of decoupling industry associations and chambers of commerce from administrative agencies. Due to historical reasons, many existing trade associations were established or operated by government.\footnote{In the early days of the founding of “New China”, the social foundation for self-organization in cities was relatively weak. The party and government urgently needed to integrate social forces, stabilize social order, and rely on authority to unify leadership and resource allocation, with work units and neighborhoods as the primary organizational systems. Closely connecting members of society has effectively changed the disordered state of society, making the government the leading force in grassroots management and laying the foundation for the "administration" of urban communities, which resulted in administrativeization as "path dependence" has become the main feature of grassroots governance in China. \textit{See} Zhang Wenguang (章文光), Chengshi Shequ Zhili de Luoji Yanbian: Xingzhenghua, Qu Xingzhenghua dao Gongtongti (城市社区治理的逻辑演变：行政化、去行政化到共同体) [The logical evolution of urban community governance: administrativeization, de-administration to community], Beijing Xingzheng Xueyuan Xuebao (北京行政学院学报) [J. BEIJING ADMIN. INST.], Vol.5, 2023, \textit{available at} \url{https://mp.weixin.qq.com/s/r015Y7-oYUT1_o0gMHGCtg} (last visited Oct. 6, 2023)} Since the early 2000s, Chinese scholars and practitioners have discussed the importance of “de-administration” and advocated that the central government should reposition its relationship with industrial associations by “supporting” their growth and development instead of “controlling” them as an extended administrative organ.\footnote{See Sun Baoqiang (孙宝强), Woguo Hangye Xiehui Gaige yu Fazhan de Sikao (我国行业协会改革与发展的思考) [Reflections on the Reform and Development of my country's Trade Associations], Zhongguo Fazhan (中国发展)[THE DEV. OF CHINA], 2005, No.3, \textit{available at} \url{http://115.182.21.10/jjyjr/201501/P020150518525004290736.pdf} \footnote{Id.}} Ways of de-administration include providing funding and policy incentives and transferring certain industrial management responsibilities.\footnote{Id.}

In 2015, the General Office of the Central Committee of the Communist Party of China (CPC) and the General Office of the State Council issued the Overall Plan for...
Decoupling Industry Associations and Chambers of Commerce from Administrative Agencies (the Overall Plan) to guide governments at national and local levels to “improve industry associations and chambers of commerce’ professional level, and motivate the organizations to switch their service focus from governments to enterprises, industries, and the market” through decoupling.\(^5\) Upon the issuance of the Overall Plan, 148 national industrial associations served as pilots that submitted plans for their decoupling reform.\(^6\) In 2019, national ministries collectively issued the Implementation Opinions on Comprehensively Promoting the Reform of Decoupling Industry Associations and Chambers of Commerce from Administrative Agencies.\(^7\) This governmental document reaffirmed that administrative agencies at all levels and the industry associations and chambers of commerce operated or directed by, associated


\(^6\) See Wang Yijun (王亦君), Quanguoxing Hangyexiehui Shanghui yu Xingzhengjiguan Tuogou SHoupi gongzuo Kaishi Shishi (全国性行业协会商会与行政机关脱钩首批试点工作开始实施) [The first batch of pilot projects to decouple national industry associations, chambers of commerce and administrative agencies has begun], Zhongguo Qingnian Bao (中国青年报) [CHINA YOUTH DAILY] (Aug. 25, 2016), at 3.

with, or purportedly affiliated with administrative agencies should adhere to the principle of “decoupling as much as possible.”\textsuperscript{559} As of the end of 2020, 728 national and 67,491 local industry associations and chambers of commerce completed the decoupling reform, with 92% and 96% completion rates, respectively.\textsuperscript{560}

The second aspect that indicates that Chinese industrial associations are developing is its growth rate is more than 10% annually, which is the fastest growth compared with other social organizations.\textsuperscript{561} As of 2022, the total number of industrial associations has reached 113,900, including 886 national industry associations, 16,300 provincial industry associations, 45,500 city-level industry associations, and 51,100 county-level industry associations.\textsuperscript{562}

The main reason for such a rapidly growing pace is that the Chinese government has encouraged establishing “multiple industrial groups within an industry” with the reform of decoupling, to motivate industrial and trade groups’ development and increase

\textsuperscript{559} Id. Section I General Requirement.
\textsuperscript{560} Chen Haifeng (陈海峥), Minzhengbu: Hangyexiehui Shanghui Yu Xingzhengjiguan Tuogou Gaige Gongzuo Jibenwancheng (民政部：行业协会商会与行政机关脱钩改革工作基本完成) [Ministry of Civil Affairs: The reform of the decoupling of industry associations, chambers of commerce and administrative agencies has basically been completed], Zhongguo Xinwen Wang (中国新闻网) [CHINA NEWS] (Feb. 23, 2021), available at https://www.chinanews.com.cn/gn/2021/02-23/9417328.shtml
\textsuperscript{561} HUANG WENFU (黄文夫), Zhengzhi, Jingji Huanjing Yu Zhongguo Shanghui de Zhanlue Zhuanxing (政治、经济环境与中国商会的战略转型, 中国经济发展战略 No.7 (2009)) [CHINA ECONOMY DEVELOPMENT STRATEGY NO.7 (2009)], 129 (edited by Ju Jinwen (剧锦文), Li Chengxun (李成勋), 2009).
their capacity.\textsuperscript{563} Although some local governments, like the provinces of Guangdong and Guangxi, have allowed the co-existence of multiple industrial associations before 2016,\textsuperscript{564} the common practice was only one industrial association allowed to be established in an industry.

### 3.1.4 Community Organizations

Community organizations, operating within a localized geographic area like a neighborhood, village, town, or city, play a crucial role in environmental conservation, climate adaptation, and risk mitigation at the grassroots level.\textsuperscript{565} Community organization

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\textsuperscript{563} The central government encourages local governments to explore how to update existing rules to allow one industry can have multiple industrial associations. \textit{See} Guanyu Gaige Shehui Zuzhi Guanli Zhidu Cushi Shehui Zuzhi Jiankang Youxu de Yijian (关于改革社会组织管理制度促进社会组织健康有序发展的意见) [Opinions on Reforming the Management System of Social Organizations to Promote the Healthy and Orderly Development of Social Organizations], issued by the General Office of the CPC Central Committee and the General Office of the State Council on August 21, 2016, available at http://politics.people.com.cn/n1/2016/0822/c1001-28653145.html

\textsuperscript{564} The province of Guangdong issued the Plans for Further Cultivating, Developing and Regulating the Management of Social Organizations in 2012, which allowed “multiple industrial associations to be established in an industry.”, Later, the Guangxi Zhuang Autonomous Region Industry Association Chamber of Commerce Management Measures, entered into effect on January 1, 2013, also explored the similar practice.


Similarly, many studies also explore community-based risk mitigation and resilience. \textit{See} generally INTERNATIONAL FEDERATION OF RED CROSS & RED CRESCENT SOCIETIES,
is a type of nonprofit organization in the U.S. and falls under social organization in China.

**The U.S.**

There is no legal definition regarding the size of a community, and it varies depending on how people use the term. Existing U.S. laws use the term “community-based organization,” which means a public or private nonprofit organization of demonstrated effectiveness that— (1) is representative of a community or significant segments of a community; and (2) provides educational or related services to individuals in the community.⁵⁶⁶

The definition above reveals three key features of community-based organizations in the U.S.. Firstly, a community-based organization has its roots in charity organizations (both public charities and private foundations). Second, community-based organizations’ activities are primarily centered around a specific community and cover a broad scope of topics related to residents, including parent-teacher organizations, sports clubs, church groups, block or neighborhood associations and many others. Third, providing educational training is community-based organizations’ crucial service. In particular,

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**COMMUNITY BASED DISASTER RISK REDUCTION STUDY (2011), available at**

⁵⁶⁶ 20 USC § 7801(5).
academic institutions have a distinguished history of supporting community development, education and service.\textsuperscript{567}

In the U.S., community organizations’ early development can be traced back to the post-Civil War era.\textsuperscript{568} Poverty and other social issues emerged after World War I, during the Depression and various social movements between the 1960s and 1970s gave birth to many organizations that advocated for domestic rural development, immigration, social welfare and public interests.\textsuperscript{569} Between the periods of the Depression and civil rights movements, the federal government established the Community Action Program funded through the 1964 Economic Opportunity Act to fight poverty by empowering the poor as part of the War on Poverty.\textsuperscript{570} More than 1,100 federal programs were available between the 1960s and 1970s, and many offered technical and financial assistance for community improvement projects.\textsuperscript{571} However, federal grants have fallen significantly over time.\textsuperscript{572} Plus, governmental grant applications pose a challenge for community-

\textsuperscript{567} Bryan M. Phifer, Community Development in America: A Brief History, SOCIO. PRAC., Vol. 8: Issue 1, Article 4, 18-31.
\textsuperscript{568} See id; Charles D. Gavin & Fred M. Cox, A History of Community Organizing Since the Civil War with Special Reference to Oppressed Communities in STRATEGIES OF COMMUNITY INTERVENTION 64-99 (J. Rothman, J.L. Erlich, & J.E.Tropman eds., 1995).
\textsuperscript{569} See Gavin & Cox, supra note 568.
\textsuperscript{570} The war on poverty is the unofficial name for legislation first introduced by United States President Lyndon B. Johnson during his State of the Union address on January 8, 1964. Phifer, see supra note 577, at 27-28.
\textsuperscript{571} Id.
based organizations with limited teams due to their complexity and the burden of managing extensive documentation requirements.\footnote{See Mariia Zimmerman et al., Increasing Federal Funding to Community-Based Organizations, ENTERPRISE (Mar. 2022), available at https://www.sparcchub.org/wp-content/uploads/2022/03/Final-CBO-Memo-March-2022.pdf} Currently, two primary funding sources for community organizations are private foundations and religious congregations.\footnote{Id; Robert Fisher & James DeFilippis, Community organizing in the United States, CMTY. DEV. J., Vol. 50, No. 3, July 2015, 363-379, at 368.}

Community-based environmental organizations’ primary goal is to ensure that local ecosystems are healthy enough to provide a range of valuable benefits, both now and in the future.\footnote{U.S. ENV’L PROT. AGENCY, COMMUNITY-BASED ENVIRONMENTAL A RESOURCE BOOK FOR PROTECTING ECOSYSTEMS AND COMMUNITIES, 1-2 (1997).} Noted that these organizations’ advocates usually focus on specific feasible actions residents can achieve. For example, Tree People, a southern California-based community organization, engages residents to plant trees to increase urban canopy and regrow local forests.\footnote{See About Us, TREEPEOPLE, https://www.treepeople.org/about-us/ (last visited Oct.6, 2023).} Due to California’s drought, Tree People also advocates for residential rainwater harvesting by partnering with another nonprofit organization to give out free rain barrels to residents.\footnote{See Wall Street Journal: L.A. Considers Ways to Collect Rainwater, TREEPEOPLE (Dec. 15, 2014), https://www.treepeople.org/2014/12/15/wall-street-journal-l-a-considers-ways-collect-rainwater/ (last visited Oct. 6, 2023).} These examples demonstrated that community-based organizations’ missions and activities concentrate on the specific environmental challenges within the community.

China
Existing Chinese laws and policies divided communities into urban and rural communities. An urban community is composed of residents living in a certain area.\(^{578}\) It is the basic unit that allows urban grassroots social governance and enables the government to provide services to residents.\(^{579}\) An urban community’s size should be “within the scope of no more than 3,000 households.”\(^{580}\) In contrast, rural communities shall be established within existing administrative villages,\(^{581}\) of which is about 250 households per village on average.\(^{582}\)

From the founding of New China to before the Reform and Opening up Policy, the "work unit system" and "people's commune" were important organizational forms for urban and rural grassroots management, respectively.\(^{583}\) After the establishment of the

\(^{578}\) Chengshi Shequ Jumin Weiyuanhui Zuzhifa (Xiuding Cao’an Zhengqiu Yijiangao (城市社区居民委员会组织法（修订草案征求意见稿))) [Organic Law of the Urban Residents Committee (Revision Draft for Comments), issued by the Ministry of Civil Affairs on August 24, 2021, Article 2.

\(^{579}\) Id. Article 2.

\(^{580}\) Id. Article 3.


\(^{582}\) Ziran Cun (自然村) [Natural Villages], Baidu (百度)[BAIDU ONLINE ENCYCLOPEDIA], https://baike.baidu.com/item/%E8%87%AA%E7%84%B6%E6%9D%91/6795622 (last visited Oct. 6, 2023).

\(^{583}\) Xiang Deping & Hua Xunzi (向德平, 华汛子), Zhongguo Shequ Jianshe de Licheng, Yanjin yu Zhanwang(中国社区建设的历程，演进与展望) [The course, evolution and prospect of Chinese community construction], Zhonggong Zhongyang Dangxiao Xuebao (中共中央党校(国家行政学院)学报)[J. THE PARTY SCHOOL OF THE CENTRAL
Reform and Opening Policy, with the social structure undergoing tremendous changes, the "work unit system" and "people's communes" were no longer effective in tackling new challenges. In 1986, the Ministry of Civil Affairs first introduced the concept of "community" into urban management and proposed to carry out community service work in cities. Community organizations in China are called community social organizations (Shèqū shèhuì zǔzhī in Chinese). It is defined as a type of social organization initiated and established by urban and rural community residents to carry out activities that can benefit residents and public welfare.

Similar to the U.S., the government is the primary sector in curating the development of community organizations in China. The Opinions of the Ministry of Civil Affairs on Vigorously Cultivating and Developing Community Social Organizations stated that the government “[s]trive[s] to achieve initial results in the cultivation and development of community social organizations by 2020, and materialize the goals that each urban community has an average of no less than ten community social organizations, and rural communities have an average of no less than five community social organizations.”

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584 Id.
585 Wang Ke (王轲), Zhongguo Chengshi Shequzhili Chuangxin de Tezheng, Dongyin ji Qushi (中国城市社区治理创新的特征、动因及趋势) [Characteristics, motivations and trends of urban community governance innovation in China], Chengshi Wenti (城市问题) [URB. PROBS.], Vol.3, 2019, 67-76, at 71.
586 Guanyu Dali Peiyu Fazhan Shequ Shehuizuzhi de Yijian (关于大力培育发展社区社会组织的意见) [Opinions of the Ministry of Civil Affairs on Vigorously Cultivating and Developing Community Social Organizations], issued by the Ministry of Civil Affairs on December 27, 2017, No.191.
social organizations. With these community social organizations in place, the Chinese government estimated that they would “become a strong support to innovate grassroots social governance” over time.

Meanwhile, community social organizations are positioned as a bridge to connect the government and residents. Other than the top-down political goals, community social organizations aim to integrate the bottom-up approach by mobilizing residents to build community public space and participate in the community’s social governance. Combining top-down and bottom-up approaches would help residents form common values and responsibilities.

However, Chinese scholars found that the current ratio of community social organizations focused on public interests and professional services is low, compared to the majority concentrating on home services, sports and cultural activities. In the countryside, a multi-actor collaborative environmental governance model has not been

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587 Id.
588 Id.
589 Li Xingguo (李杏果), Shequ Shehuizuzhi Canyu Shehui Zhili Gongtongti Jianshe: Neizailuoji ji Shixianluijing (社区社会组织参与社会治理共同体建设：内在逻辑与实现路径) [Community Social Organizations Participating in the Construction of Social Governance Community: Internal Logic and Realization Path], Henan Shehui Kexue (河南社会科学) [HENAN SOC. SCI.], Issue 1, 2023, 70-79.
590 Id.
591 Id.
592 Li, see supra note 589; Wang Yang (王杨), Yuanwangluo Celue: Shequ Shehuizuzhi Peiyu Xiaoguo de Lilunjieshi (“元网络”策略：社区社会组织培育效果的理论解释) [“Meta-Network” Strategy: A Theoretical Explanation of the Cultivation Effect of Community Social Organizations], Zhongguo Xingzheng Guanli (中国行政管理) [CHINA PUB. ADMIN.], Issue 1, 2022, 64-73.
effectively implemented. The government (including village officers) is still the leading social actor in environmental governance in rural communities, and the participation of social organizations (including community social organizations), villagers and the private sector is not active. Compared to community-based organizations in the U.S., Chinese community social organizations remain at the development stage overall. There is still a lot of room for these organizations to grow, guide and influence residents’ environmental behavior.

3.2 Motivations for Developing and Joining Civil Society Organizations'

Voluntary Environmental Programs

CSOs utilize VEPs to foster collaboration, targeting individuals, companies, and governments. They also strategically partner with companies and governments to jointly create and implement VEPs. This section outlines CSOs’ motivations for creating VEPs and explains why governments and companies participate in CSO-organized VEPs.

3.2.1 Motivations for CSOs to Organize VEPs

Determined by nature, different types of CSOs have their reasons for organizing VEPs. The nature of NGOs (particularly environmental NGOs) enables them to develop

593 See generally Tian Haixiao (田海笑), Nongcun Shequ Huanjingzhili Cunzai Wenti ji Duice Yanjiu (农村社区环境治理存在问题及对策研究——以江苏省 96 个农村社区建设为例) [Research on the Existing Problems and Countermeasures of Environmental Governance in Rural Communities——Taking the Construction of 96 Rural Communities in Jiangsu Province as an Example], Beijing Nongye Zhiye Xueyuan Xuebao (北京农业职业学院学报) [J. BEIJING VOCATIONAL C. AGRIC.], Vol.5, 2020, 46-54.

594 Id.
VEPs to tackle environmental matters that specifically concern them. In particular, NGOs may develop VEPs to achieve the following specific goals: (1) provide inputs to policy; (2) express opinions on current issues; (3) foster environmental awareness and education; (4) advise on technical matters; (5) engage in political lobbying; (6) interact with international agencies; (7) own and manage property; (8) form coalitions; (9) litigate; and (10) take direct action to address the issues.

By comparison, with centering around members’ benefits and the industry, industrial associations are motivated to develop VEPs to (1) attract and retain members; (2) enhance innovation through collective sustainability collaborations and cost-effective measures; (3) build positive cross-sector relations; (4) identify industry priorities for members; (5) fulfill association goals, including assisting members to be competitive and profitable; (6) build industry reputation and brand; and (7) enhance employee recruitment and retention for the industry as a whole.

Foundations shape the focuses and action agendas based on ethical perceptions/corporate social responsibility (CSR) values of their individual or corporate founders, as described in Parts 2.1 and 2.2.

3.2.2 Values for Joining CSOs-organized VEPs

Participating in CSO-organized VEPs offers significant value for corporations and governments, although program organizers may charge a fee. CSOs, especially NGOs, play a crucial role in developing comprehensive and systematic standards. However, scholars have observed that when participants (mainly corporations) fail to adhere to these standards while benefiting from the CSO brand reputation, it could harm the VEP and its CSO host’s reputation and credibility. 598

Furthermore, CSO-organized VEPs sometimes tackle issues yet to be reflected in government-organized initiatives or regulations. One prominent example is that many NGOs offer options for individuals, unregulated corporations, and other organizations to purchase carbon credits to mitigate the carbon emissions generated from their lives and operations. 599 Some U.S. scholars suggest that corporations joining VEPs, whether hosted

598 Potoski & Prakash, supra note 542, at 404.
by CSOs or other social actors, are not necessarily for addressing environmental problems but instead may be a strategy to preempt governmental regulations.\textsuperscript{600}

Plus, CSOs may build a community that provides platforms and opportunities for participants to share ideas and exchange information. For example, the 1% for the Planet organization hosts networking events regularly to encourage collaboration between members.\textsuperscript{601} Similarly, the B Lab launched the B Hive (an online forum) for organization members “to connect, collaborate, access resources, share knowledge and offer discounts.”\textsuperscript{602} CSOs’ inclusive community nature allows participants of different sectors to communicate conveniently, helps CSO organizers to understand and balance different social actors’ interests when developing their VEPs, and eventually make these VEPs implementable and acceptable.

Lastly, CSO-organized VEPs may offer knowledge support to participants. One example is that the Rainforest Alliance provides “a wide range of tools and resources”

\textsuperscript{600} Potoski & Prakash, \textit{supra} note 542, at 405.
\textsuperscript{601} The author used to work at organizations that are member of 1% for the Planet. It organizes virtual and in-person events for members to meet up. Every year, 1% for the Planet hosts a Global Summit, its annual gathering, to offer members opportunities to network and engage. \textit{See Global Summit 2022, 1% For The Planet, https://onepercentfortheplanet.org/global-summit-agenda} (last visited Apr. 24, 2023).
\textsuperscript{602} \textit{What is the B Hive and how do I log into it?} B LAB, \textit{https://kb.bimpactassessment.net/support/solutions/articles/43000435100-what-is-the-b-hive-and-how-do-i-log-into-it} (last visited Apr.25, 2023).
and “customized support to help [participating] companies define and achieve their sustainability commitments.”

3.2.3 Drivers of Establishing Cross-Sector Partnerships

It has become common for corporations and governments to form partnerships with CSOs. Cross-sector partnerships are collaborations between organizations from at least two different societal sectors that work together to strive for economic, social, and environmental welfare. Some scholars mentioned that such partnerships often address large-scale, persistent, and “wicked” problems that transcend sectoral boundaries and are difficult to solve within a single sector, where problem-solving capacities may be inherently limited. In recent years, cross-sector partnerships are also used in managing environmental issues at the local level. The author views voluntary cross-sector

605 Id.
606 See generally Dave Maurrasse & Victoria Bortfeld, How Community Partnerships Are Helping to Address Environmental Concerns, COLUMBIA CLIMATE SCHOOL, Blog (May 26, 2021), available at https://news.climate.columbia.edu/2021/05/26/community-partnerships-environmental-concerns/ (last visited Oct. 6, 2023) (it provides examples of cross-sector partnerships targeted environmental issues within communities); See generally Yan Jianwen, Wei Min & Liu Yuelai (基于乡土保育公私合作的公园绿地设计——以上海庄行社区花园为例) [Public-private Partnership in Park Design Based on Vernacular Conservation——A Case Study of Shanghai Zhuangxing Community Garden], Jingguan Sheji (景观设计)[LANDSCAPE DESIGN], Vol. 6 2021, 42-49. (It provides a detailed analysis on the example to show how the CSO sector and local government work on this project together).
partnerships as an enhanced form of single-sector VEPs, fostering deeper collaboration across diverse social sectors.

Collaborating parties' expertise and resources complementing each other is the prerequisite of forming cross-sector partnerships. Although CSOs’ key resources—credibility, expertise and reach—are demanded in all cross-sector partnerships, the specific motivations that drive government and business to establish cross-sector partnerships may be slightly different.607

Scholar Jens Steffek summarized the main reasons that may “pull” government to work with CSOs, include: (1) pinpointing new or upcoming issues that should be dealt with; (2) acquiring additional expertise for the formulation of governmental policies; (3) seeking CSOs cooperation in the implementation phase of the policy-cycle; and (4) seeking CSOs cooperation to monitor compliance of relevant policies and laws.608 Compared to government, NGOs and other CSOs are less influenced by the political decisions of the governments, show higher operational flexibility (i.e., simpler management processes and lower costs), and are more committed to implementing

608 Even though Steffek’s theoretical framework focuses on the international level, the motivations listed in the framework for pushing and pulling the two sectors to work together are also applicable to domestic levels. The author of this thesis uses CSO to refer to the term NGO listed in Steffek’s framework to be consistent with this thesis’ definitions of different terms. See Jens Steffek, Explaining cooperation between IGOs and NGOs - Push factors, pull factors, and the policy cycle, REV. INT’L STUD., Volume 39, Issue 4, 2013, 993 - 1013, at 1003-1006.
programs and achieving defined goals.\textsuperscript{609} Therefore, CSOs may be more accountable to a society’s various needs.\textsuperscript{610}

Meanwhile, CSOs may be “pushed” to partner with government because (1) CSOs need funding and other resources to survive;\textsuperscript{611} (2) CSOs seek to bring a new issue to the international or domestic political agenda as partnerships can generate more publicity and elicit a political response; and (3) CSOs seek to influence government’s policy formulation and decision relevant to the CSOs’ concerned topics.\textsuperscript{612} By collaborating with government (including intergovernmental organizations), CSOs (including INGOs) can significantly influence managing international and domestic issues throughout different phases of the policy-cycle.\textsuperscript{613} Scholars have also observed that NGOs often have transformed from a facilitator to legislative advocate and a leader who guides the legislative direction during the legislation phase.\textsuperscript{614} Furthermore, NGOs have

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\textsuperscript{610} Id.

\textsuperscript{611} Most CSOs have relatively small organizational sizes compared to governments and businesses, and thus they require additional resource support. The same considerations referenced in the United Nations survey showed that 61% of the CSO respondents have no more than 20 employees, even though almost 69% of these surveyed CSOs were international and national organizations. Many CSOs rely on volunteers nationwide to broaden their impact on the focused areas. U.N., UNDESA survey, \textit{supra} note 466, at 16-19.

\textsuperscript{612} Steffek, \textit{supra} note 608, at 1006-1007.

\textsuperscript{613} Id. at 1007.

\textsuperscript{614} See Wang Yiran (王怡然), \textit{Feizhengfuzuzhi Canyu Nanji Guojizhili de Diwei yu Zuoyong} (非政府组织参与南极国际治理的地位与作用) [The Legal Status and Impact
played an important monitoring role during the law enforcement phase, and some NGOs have even undertaken management responsibilities.\(^{615}\)

Similarly, many companies are willing to establish cross-sector partnerships to effectively implement their CSR agendas, especially with NGOs.\(^{616}\) Companies recognize that their competencies and noncash assets can offer CSO partners more than just financial support to gain CSO partners’ knowledge and skills in exchange.\(^{617}\) James Austin developed a concept of three stages of strategic alliances to describe a partnership between business and NGO: philanthropic, transactional and integrative.\(^{618}\) The philanthropic relationship’s key characteristics may be low levels of engagement between partners, few resources and activities involved, and little interaction with low strategic value.\(^{619}\) In the transaction stage, businesses and NGOs may increase their engagement of all the elements listed above accordingly.\(^{620}\) In the integrative stage, partners’ engagement may be high, with a large set of resources involved in many activities at a

\(^{615}\) Id.


\(^{617}\) Id. at 617.


\(^{619}\) Id.

\(^{620}\) Id.
high level of interaction and such collaboration may be of strategic value to both parties. Austin’s theory implies that the depth of cooperation between business and CSO can evolve and increase over time.

By comparison, the level of cooperation between government and CSO can vary depending on the phase of the policy-cycle (development, implementation and monitoring), because a government-CSO partnership may only focus on one stage of the policy-cycle.

All cross-sector partnerships can be established by the following steps: (1) select a cause; (2) pick a partner; (3) set goals; (4) put assets to work; (5) communicate; and (6) evaluate the performance. Practitioners summarized some crucial elements that can contribute to an effective cross sector partnership. They are shared values (including expectations in terms of shared resources and engagement levels), mutual respect (serves as the cornerstone of a partnership), mutually agreed-upon communication

621 Id.
623 See Sesso Christophe Gbeleou and Jennifer Schechter, How NGOs Can Work With Governments to Build Partnerships That Will Scale, Stanford Social Innovation Review (Sep. 22, 2020), available at https://ssir.org/articles/entry/how_ngos_can_work_with_governments_to_build_partnerships_that_will_scale# (last visited May 1, 2023); Mizar, supra note 617.
624 Scholars and practitioners agree that mutual trust is “the foundation” for the business, government and CSO sectors to work together. However, CSOs should remember that “government is in charge” in a government-CSO partnership, meaning CSOs may need to compromise to work within the existing governmental system. By comparison, the
strategies (including monitoring mechanisms and reporting requirements), and continuous learning.

Although cross-sector partnerships have unique benefits, scholars and practitioners are concerned about the rise of partnerships has raised doubts about the changing role of NGOs. NGOs’ relationship with companies is perceived to weaken their independence, commitment to the causes they represent and unbiased power to campaign. Furthermore, NGOs have been criticized for partnering only with large corporations rather than smaller companies. For government-CSO partnerships, some


625 Mizar, supra note 617. See Rajabi et al., supra note 609; See Hanstad, supra note 624 (*Opinion: NGOs — here’s how to strengthen your engagement with governments*); also see Gbeleou & Schechter, supra note 623.

626 Mizar, supra note 617.


628 *Id.*

629 *Id.*
scholars pointed out that including CSOs in forming regulations could “undermine democratic norms, as [CSOs] are not democratically accountable for their activities.”

3.3 Types of Voluntary Environmental Programs Organized by Civil Society Organizations

Through reviewing CSO-organized VEPs in the U.S. and China, including cross-sector partnerships, the author divides these VEPs into four types: voluntary standards, donation-based programs, data-compiling programs, and research and educational programs. This section compares each type of VEP’s differences and similarities in the two countries.

3.3.1 Voluntary Standards

Voluntary standards, including voluntary recognitions (or voluntary certifications), target unregulated practices or advocate for stricter standards than regulations. Upon joining this type of VEP, participants need to meet the standard to maintain their membership status.

NGOs and INGOs are the main contributors to developing voluntary recognition schemes and standards, such as the Forest Stewardship Council which promotes responsible management of the world's forests via timber certification. Industrial

associations are another key CSO group that establishes voluntary environmental standards. For example, the Global Sustainable Tourism Council establishes and manages global sustainable tourism standards to increase sustainable tourism knowledge and practices among public and private stakeholders.  

The rise of CSO-organized voluntary recognitions and standards can positively influence public policies through consistent innovation and development of new tools and concepts, and thus raise the bar for existing mandatory standards. Therefore, governments may support, regulate and endorse these voluntary schemes.

The U.S.

Compared to many other countries that stick to a “top-down” approach to standardization where government serves as the standards setter and mandates what standards will be developed, the U.S. chooses an approach in which no central agency is responsible for overseeing the entire system. This approach leaves to each governmental agency to decide which standards are most appropriate for U.S.

634 Id.
government use. In other words, government can adopt voluntary standards when needed. Since the mid-1990s, U.S. agencies and regulatory bodies have increasingly referenced voluntary standards. Companies, government agencies, public interest organizations, or individuals—any person with a vested interest in a proposed standard can participate in its development.

In this context, many voluntary recognitions and standards that advocate environmental and socially responsible practices are thriving in the U.S.. One prominent example is the Benefit Corporation (known as “B Corp”) Certification used to measure a company’s social and environmental impact, a program developed by a nonprofit organization B Lab established in 2006. B Corp refers to those companies that get certified by B Lab under the certification scheme, meaning “business should aspire to not harm but benefit all through their products, practices and profits.” Beneath the rationale of “us[ing] businesses as a force for good” to develop a new global economy, B

636 Id. at 3-6. Note that the source uses the term “voluntary consensus standards,” which is in line with the meaning of voluntary standards defined in this paper. Therefore, this author uses “voluntary standards” instead.
637 Id. at 6.
638 What is the American National Standards Institute (ANSI)? AM. NATIONAL STANDARDS INST., https://asq.org/quality-resources/ansi-standards
640 About B Corp Certification, supra note 639.
Lab envisions that each purpose-driven B Corp can create benefits for all stakeholders instead of only shareholders.\(^{641}\)

The number of certified B Corps has increased over the years—from only 71 companies certified in 2007 to the amount climbed to 6,123 in 2022.\(^{642}\) Noted that most certified B Corps are located in Western countries.\(^{643}\) That is why some scholars think the B Corp movement makes businesses and governments rethink capitalism.\(^{644}\) Furthermore, the movement pushing for B Corp also led to the creation of a new legal entity type (such as “public benefit corporation,” “benefit corporation” or “public benefit limited liability company”) recognized by many states since 2010.\(^{645}\)

Although the specific definition of benefit corporation varies in states, it generally means a for-profit company that legally sets a company’s societal and environmental

\(^{641}\) *Id.*

\(^{642}\) See 2022 Annual Report-Number of B Corps, B Lab, available at https://infogram.com/1te9x6k1pgzx0lbwo7490melglizo4md81 (last visited May 12, 2023)

\(^{643}\) *Id.* As of 2022, there are 99 certified B Corps in China (including Taiwan, Hong Kong & Macau), 54 in Africa, 27 in southeast Asia.

\(^{644}\) See generally CHRISTOPHER MARQUIS, BETTER BUSINESS: HOW THE B CORP MOVEMENT IS REMAKING CAPITALISM (2021).

\(^{645}\) The first state to approve benefit corporation legislation was Maryland in 2010. See B Corp States: Everything You Need to Know, Up Counsel, available at https://www.upcounsel.com/b-corp-states (last visited May 11, 2023) (listing the states that introduce or recognize benefit corporation); see Jamie Taub, Certified B Corporation, Public Benefit Corporations and the Impact to Corporate Governance, Schenck, Price, SMITH & KING, LLP (Oct. 9, 2020), available at https://www.spsk.com/certified-b-corporation-public-benefit-corporations-and-the-impact-to-corporate-governance (last visited May 12, 2023)
mission as its core business objective.646 A registered benefit corporation does not have to obtain the B Corp Certification developed by B Lab, but B Lab now requires certified B Corps that are formed as corporations to become benefit corporations if such form of legal entity is available in the state where the company is incorporated.647 Legal practitioners pointed out that a benefit corporation may elect to obtain the voluntary B Corp Certification because (1) the public is more familiar with Certified B Corps and the recognizable B mark logo than statutory benefit corporations; and (2) the annual reports required by B Lab is useful to help satisfy the state legal reporting requirements of being benefit corporations.648

The B Corp Certification example demonstrates how a voluntary certification can influence legislation to recognize an innovative concept and even become a valuable tool to support law enforcement. The example further indicates how a domestic voluntary standard (B Lab was founded in the U.S.) can be promoted to other countries and regions, thus creating a global trend to reinforce the voluntary standard’s domestic application.

China

Compared to the U.S., the Chinese government was the country’s sole standard-setter for a long time. In recent years, the Chinese government started reforming its

648 Id.
standardization system, encouraging social organizations and corporations to develop high-quality voluntary standards.

The first “alliance standard” was developed in the information technology industry in 2000, followed by other industries such as manufacturing.\textsuperscript{649} The original intention of formulating alliance standards was “to leverage them for market competition and raise the barriers for industrial entry.”\textsuperscript{650} Over the years, industrial associations developed alliance standards to manage environmental issues shared by the industry. Zhou et al. pointed out that industry associations have more advantages than governments and individual enterprises in collecting industry pollution information, advocating innovating treatment processes, developing large-scale pollution treatment, and formulating industry environmental protection standards.\textsuperscript{651} Industrial associations make collective actions in environmental governance possible, and their governance effectively fills in the gaps that government and individual enterprises cannot reach to, so that “the


\textsuperscript{650} Id.

government and industry, industry and the public, and enterprises and enterprises can achieve consistency in demands and balance of interests.”

Because of the importance of alliance standards, the State Council released the Notice on Issuing the Scheme for Deepening Reform of the Work of Standardization in 2015, which first came up with the concept of “group standard.” This document pointed out a few outstanding issues in the existing standardization system, including “internationally accepted group standards [were] of no legal status in China, and standards that are independently formulated by the market and that rapidly reflect demand cannot be effectively supplied” due to the government was the only standard-establisher and supplier in the scheme. Therefore, the national government should reform the standardization system to allow non-governmental sectors to develop diverse “group standards” and admit their legal status accordingly.

In 2016, Guiding Opinions on Cultivating and Developing Group Standards was released to materialize the concept of group standards. The document required the

652 Id.
653 See Guanyu Yinfa Shenhua Biaozhunhua Gongzuo Gaigefang’an de Tongzhi (关于印发深化标准化工作改革方案的通知) [Notice on Issuing the Plan for Deepening the Reform of Standardization Work], issued by State Council on Mar. 11, 2015, No.13, available at http://www.gov.cn/zhengce/content/2015-03/26/content_9557.htm
654 Id.
655 Id.
administrative department of standardization of the State Council to establish a national group standard information platform to (1) strengthen information disclosure of group standards to enable the public to monitor these standards’ development and implementation; (2) offer social organization certain services to help them develop, refine and promote their group standards; and (3) compile creditable statistics on group standards’ development. The national group standard information platform was launched in the same year.

In 2017, the Standardization Law was revised with focuses on refining and streamlining the standardization system. The revision affirmed that (1) social groups, including NGOs and industrial associations defined in this chapter, can develop group standards; (2) group standards are voluntary standards; and (3) the goal of developing group standards is to meet the needs of the market and inspire innovation. Particularly,

657 Id.
658 Xu Feng (徐风), Quanguo Tuanti Biaozhun Xinxing Pingtai Yunxing Baitian (全国团体标准信息平台运行百天) [The national group standard information platform has been in operation for 100 days], Zhongguo Caijing (中国财经) [FIN. CHINA] (Jul. 25, 2016), available at http://finance.china.com.cn/consume/20160725/3827102.shtml
the government supports social groups to use innovative technologies to develop group
and corporate standards for emerging industries and technologies.”

To ensure group standards to “improve economic, social and ecological
benefits,” the Standardization Law requires that group standards “shall not be lower
than those of mandatory national standards” but “higher than the relevant technical
requirements of recommended standards.” Therefore, the group standard is an essential
tool to allow social groups in China to participate in environmental governance.

When developing group standards, social groups in China should follow the
principles of openness, transparency, and fairness to engage relevant stakeholders and
disclose relevant information. Meanwhile, the State Council’s standardization
administrative department, in conjunction with other relevant administrative bodies,
oversees and guides the development of group standards. The government’s close
supervision on group standard development reflects that the Chinese government aims to
accelerate “the transformation of high-quality group standards into national [mandatory]
and international standards.”

661 Id. Article 20.
662 Id. Article 22.
663 Id. Article 21. Recommended standards refer to national or industry standards that
manufacturers and users can adopt voluntarily.
664 Id. Article 18.
665 Id.
666 Guanyu Yinfa Xiaofeipin Biaozhun he Zhiliang Tisheng Guihua (2016-2020 Nian) de
Tongzhi (关于印发消费品标准和质量提升规划 (2016－2020 年) 的通知)][The
Consumer Product Standards and Quality Improvement Plan (2016-2020)], issued by the
General Office of the State Council on September 12, 2016, Item 2 (1), No.68, available
at http://www.gov.cn/zhengce/content/2016-09/12/content_5107628.htm
Admitting group standards’ legal status motivates more social groups to develop voluntary standards with their professional knowledge and expertise and promote them to the public. For example, the China Biodiversity Conversation and Green Development Foundation has developed and published seven different group standards since 2020, five of which are relevant to biodiversity. In March 2017, one year after its launch, the national group standard information platform recorded 476 social groups registering and releasing 712 group standards. In 2022, the platform saw the release of 51,078 group standards, with 1,290 specifically registered in the environmental protection category, and this number continues to rise.

With the fast-increasing number of group standards, the Chinese government pointed out that standard organizers should streamline the lifecycle of standard

669 Guo Jingyuan (郭静原), Quanxi Xinzeng 881 Xiang Biaozhun Chengwei Lingpaozhe (去年新增 881 项标准成为 “领跑者”)(The "China Standardization Development Annual Report (2022)" was released), and 881 new standards were added last year to become “leaders”), Jingji Ribao (经济日报)[ECON. DAILY] (April 20, 2023).
development, verification, evaluation, and monitoring.\textsuperscript{671} Government at different levels should develop incentives to award social groups and corporations that develop and adopt high-quality group standards.\textsuperscript{672}

3.3.2 Donation-Based Programs

In the U.S. and China, many philanthropy groups and NGOs often host donation-based VEPs. CSOs’ donation-based programs allow program participants and partners to donate financial resources to environmental causes. Some CSOs also accept volunteering and pro bono activities offered by individuals, corporations and organizations. Corporations and organizations may develop internal rules to support employee volunteering, including offering benefits and compensation during volunteering.\textsuperscript{673} Compared to voluntary standards, donation-based programs do not require participants to invest as much effort in implementing and monitoring. The author divided donation-based programs into three types by the extent of a donor’s involvement.

The first and most popular type is that the VEP organizer advocates individuals, businesses, and organizations to fund the CSO. The VEP organizer determines the types of donations they accept (i.e., monetary donations, stocks, and life insurance) and offers

\textsuperscript{671} Guanyu Cujin Tuanti Biaozhun Guifan Youzhi Fazhan de Yijian (关于促进团体标准规范优质发展的意见)\textsuperscript{[Opinions on promoting the high-quality development of group standards and norms]}, jointly issued by multiple national ministries on January 25, 2022.

\textsuperscript{672} Id.

options for donation frequency (i.e., one-time or recurring). For example, Feeding America and the Food Bank of Central New York are nonprofit organizations that provide food and support to people who are in need. They use donations collected openly via their websites and other means to support their work, including advocating the passage of the Food Donation Improvement Act 2022. Similarly, with financial support from Bank of America and other funders, the Nature Conservancy (an INGO registered in the U.S.) and its partners “developed a first-of-its-kind reef insurance policy” which covers a 160-kilometer stretch of the Mesoamerican reef in Quintana Roo, Mexico. The Nature Conservancy also received funds and employees’ volunteering from American Express (a financial service company).

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674 See A Guide to Types of Donations to Nonprofits, COMMON BOND COMMUNITIES (Sep. 27, 2022), available at https://commonbond.org/types-of-donations-to-nonprofits/ (discussing common types of donation that NGOs can accept). In China, donated property includes currencies, physical goods, houses, negotiable securities, equities, intellectual property rights and other tangible and intangible property. Charity Law of the People's Republic of China, see supra note 528, Article 36.


donation-based program aims to support the organization as a whole rather than a specific environmental initiative. The organization decides how to allocate the giving.

VEP organizers also collect donations dedicated to a specific environmental program hosted by a CSO and/or its partners. For example, the China Environmental Protection Foundation hosted the Sunshine Green Project, asking each donor of interest to make a donation of RMB 3,000 to install a solar cooker with a lighting area of 2 square meters (equals to 21.5 square feet) and a 20-watt photovoltaic power generation system for a farming and herdsman family in Tibet. Such donations link to installing systems that can help meet local families' fuel and electricity needs, alleviate poverty, protect the local environment and reduce greenhouse gas (GHG) emissions. Another example is carbon credit programs, which many U.S. NGOs offer to allow individuals and organizations to mitigate their carbon footprint through supporting GHG reduction projects elsewhere. These NGOs do not necessarily own or manage the carbon credit projects. In other words, NGOs can host a donation-based program to fund third-party organized environmental projects.

680 Id.
681 For example, Cool Effect, a nonprofit organization focused on reducing carbon emissions, offers a wide range of carbon offset projects for the public to support. Some of these projects, such as Cooking with Gas (China), were developed and hosted by a German company called UPM instead of Cool Effect. See Scientifically Verified Carbon Projects and Pricing, COOL EFFECT, https://www.cooleffect.org/projects; The Sichuan
The third type of donation-based environmental program is commonly used in cross-sector partnerships—a CSO works closely with a donor to establish and manage a program together. For example, the Automotive Environmental Protection Innovation Leading Program (the Automotive Environmental Program) is an initiative jointly developed by FAW-Volkswagen Co., Ltd. and China Environmental Protection Foundation in 2020. Centered around China’s domestic "carbon peak" and "carbon neutral" strategies, the Automotive Environmental Program encourages universities and research institutes to submit research proposals on developing environmentally friendly approaches to tackle challenges in the science, technology and engineering of automotive. FAW-Volkswagen provides funding to support the program, and


682 See generally Zhonghua Huanbao Jijinhui (中华环保基金会) [China Environmental Protection Foundation], Qiche Huanbao Chuangxin Yinling Jihua (汽车环保创新引领计划) [Automotive Environmental Protection Innovation Leading Program], http://www.cepf.org.cn/projects/QCHBCX/; At the beginning of the project, FAW-Volkswagen planned to invest a total of 15 million yuan in the field of green environmental protection for three years. See Yiqi-Dazhong (一汽-大众) [FAW-Volkswagen], (一汽-大众“第三届汽车环保创新引领计划”产学研携手撬动零碳未来) [FAW-Volkswagen "The Third Automotive Environmental Protection Innovation Leading Program" Industry-University-Research Institute Join Hands to Leverage a Zero-Carbon Future], press release (Dec. 22, 2022), http://www.faw-vw.com/news_detail.html?whereid=29882 (last visited May 17, 2023).

683 Zhonghua Huanbao Jijinhui (中华环保基金会) [China Environmental Protection Foundation], Guanyuzhengji Diyijie Yiqi-Dazhong Zhonghua Huanjingbaohu Jijinhui Qiche Huanbao Chuangxin Yinling Jihua Xiangmu Pinggu Zhitong Lianhe Danwei de Gonggao (关于征集第一届“一汽-大众 中华环境保护基金会 汽车环保创新引领计划”项目评估执行单位的公告) [Announcement on Calling for Project Evaluation and Executing Units of the First “FAW-Volkswagen China Environmental Protection Foundation
designates annual research topics with the China Environmental Protection Foundation. Since launch, the Automotive Environmental Program has covered various topics related to the automotive industry, such as carbon reduction and carbon-neutral strategies, intelligent transportation, and pollution prevention and control. The China Environmental Protection Foundation claims that the program is currently “the only public welfare funding project in China aimed to pioneer environmental protection innovations in the automotive industry.”

The three types of donation-based programs indicate that CSOs always seek resource support in environmental protection, whether from individuals, companies, or other organizations.


684 The Automotive Environmental Protection Innovation Leading Program established by funded 28 research topics in 2020 and 2021, and further provided 33 research topics for researcher to apply. See Zhonghua Huanbao Jijinhui (中华环保基金会) [China Environmental Protection Foundation], Guanyu Disanjie Yiqi-Dazhong Zhonghua Huanjingbaoahu Jijinhui Qiche Huanbaochuangxin Yinlingjihua Xiangmu de Zhengjigonggao (关于第三届 一汽-大众 中华环境保护基金会汽车环保创新引领计划项目的征集公告) [Announcement on the Solicitation of the 3rd FAW-Volkswagen China Environmental Protection Foundation Automotive Environmental Innovation Leading Program Project] [Sep. 7, 2022], http://www.cepf.org.cn/jjhdt/202209/t20220907_993417.htm (last visited May 17, 2023).

685 Id.

686 China Environmental Protection Foundation, supra note 701 (the Foundation made the claim when launching the First “FAW-Volkswagen China Environmental Protection Foundation Automotive Environmental Protection Innovation Leading Program).
3.3.3 Data-Compiling and Reporting Programs

As discussed in Chapter 2, environmental disclosure is vital to keep corporate voluntary commitments in check. In light of the lack of standardized legal requirements for corporate sustainability and climate reporting, an increasing number of companies are embracing CSO-developed reporting frameworks to disclose relevant information. Some CSOs even establish platforms for corporations and governments to submit and share their environmental information. This section examines CSO-organized data-compiling and reporting programs.

One well-recognized example is the Carbon Disclosure Project (CDP), a nonprofit organization established in the United Kingdom in 2000 with regional offices and local partners in 50 countries.687 CDP was founded with the idea that disclosing corporations’ climate performance would lead to better management of climate issues.688 CDP serves as an intermediary facilitating investors' disclosure requests and managing data submitted by requested companies through CDP's questionnaires. 689 CDP also encourages

688 “Investors would request corporations to disclose their climate performance,” which would ultimately result in “what gets measured [and disclosed], gets managed.” The quote is from the CDP's 20th anniversary video clip. See Celebrating 20 years of CDP, CARBON DISCLOSURE PROJECT, https://www.cdp.net/en/info/about-us/20th-anniversary (last visited Jan.3, 2024).
689 Here are the five general steps in CDP’s disclosure process for companies: Step 1: Investors or customers submit a disclosure request through CDP; Step 2: Companies receive the disclosure request, then gather their information and submit their disclosure to CDP; Step 3: Companies review the complete disclosure and CDP score for opportunities to improve their environmental impact; Step 4: CDP sends disclosure to requesters; and Step 5: CDP uses disclosure data for future reports and datasets. See CDP: Carbon
corporations that investors have yet to request to disclose their environmental impact data via its platform.690

CDP launched climate change, forests, water security and plastic requests in 2002, 2009, 2011 and 2023, respectively.691 Each request equips one questionnaire.692 CDP updates its questionnaires regularly and occasionally introduces new questions on topics that reflect CDP and its stakeholders’ strategic priorities.693 The 2023 version of the general climate change questionnaire includes the following modules: governance (from board oversight, management responsibilities to employee incentives), risks and opportunities (to disclose risks, opportunities and the management processes), business strategies, emission methodology, emission data, energy (energy spend and related activities), additional metrics (such as low carbon investments and net-zero buildings), verification, carbon pricing (internal and external systems), engagement (including climate-related requirements, industry collaboration, policy and supplier engagement), and biodiversity.694

690 See How to Disclose as A Company, CARBON DISCLOSURE PROJECT,
691 Celebrating 20 years of CDP, supra note 688.
692 CARBON DISCLOSURE PROJECT, supra note 690.
693 See generally Guidance for Companies, CARBON DISCLOSURE PROJECT,
694 See generally CDP questionnaires 2023-Climate Change Questionnaire, CARBON DISCLOSURE PROJECT, available at
Furthermore, CDP has collaborated with and adopted the Recommendations of the Task Force on Climate-Related Financial Disclosures to improve its climate change disclosure questionnaires since 2018.\textsuperscript{695} Reporting organizations can follow the well-recognized Task Force on Climate-Related Financial Disclosures’ framework and format when disclosing their climate-related financial data via the CDP platform. CDP also works with the Global Reporting Initiative (GRI) to standardize its climate change and water questionnaires.\textsuperscript{696}

In 2014, CDP released questionnaires to encourage states and regions to disclose their climate data.\textsuperscript{697} The state and region questionnaire includes the following modules: governance, assessment, targets, planning, action and forest.\textsuperscript{698} These modules seek information on the jurisdiction’s climate adaptation and mitigation status quo.

\textsuperscript{695} See Part 2.3.4 for the introduction of TCFD; Celebrating 20 years of CDP, \textit{supra} note 706; \textit{How CDP is aligned to the TCFD}, \href{https://www.cdp.net/en/guidance/how-cdp-is-aligned-to-the-tcfd}{CARBON DISCLOSURE PROJECT} (last visited Oct. 6, 2023)


\textsuperscript{697} Celebrating 20 years of CDP, \textit{supra} note 688.

\textsuperscript{698} See generally \textit{States and Regions 2023 Questionnaire}, \textit{CARBON DISCLOSURE PROJECT}, available at \href{https://guidance.cdp.net/en/guidance?ctype=theme&idtype=ThemeID&cid=42&otype=Questionnaire&incchild=1&microsite=0&gettags=0}{https://guidance.cdp.net/en/guidance?ctype=theme&idtype=ThemeID&cid=42&otype=Questionnaire&incchild=1&microsite=0&gettags=0} (last visited May 19, 2023)
In 2022, over 746 investors representing more than $136 trillion in assets requested thousands of companies to disclose through CDP; more than 18,700 companies worth over half of global market capitalization disclosed their environmental impacts through CDP questionnaires; 699 108 states and regional governments disclosed their climate data through CDP. 700 Noted that CDP and similar platforms focus on investors’ viewpoint, which primarily concerns corporate material impacts. That is why these platforms’ data may reveal the status of corporate practices. 701

CDP’s environmental disclosure model has been translated into mandatory requirements by the U.S. government in 2022. The Biden Administration proposed the Federal Supplier Climate Risks and Resilience Rule, which requires major federal suppliers (annual federal obligations worth more than $50 million) to disclose their environmental impacts through CDP’s system. 702 Inspired by CDP’s Supply Chain

700 States and regions, CARBON DISCLOSURE PROJECT, https://www.cdp.net/en/states-and-regions#5dbfad9259fe9f905dd91b1b965486db (last visited May 19, 2023)
701 Some scholars pointed out that most companies disclose lower emissions in their own CSR reports than in the CDP questionnaires. See Technical University of Munich, Tech companies underreport CO2 emissions, SCI DAILY (Nov. 18, 2021), https://www.sciencedaily.com/releases/2021/11/211118203514.htm (last visited May 22, 2023)
initiative model, major federal suppliers are further obligated to publicly disclose their GHG emissions, climate-related financial risks and set science-based emissions reduction targets.\footnote{Id; see \textit{In bold new move, Biden Administration makes CDP’s model the law, CARBON DISCLOSURE PROJECT, Press Release} (Nov. 11, 2022), \url{https://www.cdp.net/en/articles/media/in-bold-new-move-biden-administration-makes-cdps-model-the-law} (last visited Oct. 6, 2023).}

CSO-organized data-compiling programs like CDP collect non-public data exclusively from corporations and governments. The Institute of Public and Environmental Affairs (IPE), a social organization registered in Beijing, China, demonstrates another approach CSOs take to develop similar programs using public information.\footnote{Gongzhong Huanjing Yanjiu Zhongxin (公众环境研究中心)[Institute of Public and Environmental Affairs](known as “IPE”), Guanyu Women (关于我们)[About us], \url{https://www.ipe.org.cn/about/about.html} (last visited May 22, 2023).}

IPE was established in 2006 to promote public participation and monitoring of environmental issues.\footnote{See Gongzhong Huanjing Yanjiu Zhongxin (公众环境研究中心)[Institute of Public and Environmental Affairs], Shuju Jieshao (数据介绍)[Introduction to Data], \url{http://wwwwen.ipe.org.cn/InfoDetail/Show.aspx?id=18638&jid=18637&bid=18644&isnb=1}} It developed the Water Pollution Database and launched the China Water Pollution Map (an interactive webpage) in the same year.\footnote{Id.} The public, corporations, governments and CSO peers can use IPE tools to obtain one company’s environmental information for free at one stop, including the company’s environmental record, various emission data, clean production verification, reported accidents,
emergency risks and environmental impact assessment monitoring.\textsuperscript{707} IPE sources data and information from publicly accessed governmental records and corporate disclosure materials and updates the data in real time.\textsuperscript{708}

Similar to CDP, IPE has expanded its focus to multiple environmental issues over the years, including air pollution, waste, plastic, carbon emissions and corporate supply chains, and developed maps and various indexes to improve information transparency on these topics.\textsuperscript{709} Through developing and improving IPE tools, the organization has partnered with the government, corporations and other environmental protection organizations to help a wide range of companies achieve environmental transformation, promote environmental information disclosure and improve environmental governance in pollution control.\textsuperscript{710} As of December 2019, IPE’s databases have hosted more than 1.6 million datasets compared to the initial 2,000 datasets when it was established in 2006–

\textsuperscript{707} \textit{Id}; see Gongzhong Huanjing Yanjiu Zhongxin (公众环境研究中心)\textsuperscript{[Institute of Public and Environmental Affairs]}, Qiye Biaoxian (企业表现) \textsuperscript{[Records]}, available at http://wwwen.ipe.org.cn/IndustryRecord/Regulatory.html?keycode=4543j9f9ri334233r3r

\textsuperscript{708} IPE has a collection of environmental quality, environmental discharge and pollution source supervision records issued by 31 provinces and 338 municipal governments; and mandatory or voluntary disclosures made by companies based on relevant laws and regulations and corporate social responsibility requirements. According to IPE, “17 pieces per second of online monitoring data updated in real-time which are automatically disclosed by key monitored enterprises every hour.” Institute of Public and Environmental Affairs, supra note 705.

\textsuperscript{709} Institute of Public and Environmental Affairs, supra note 704.

implying China has made historic progress on environmental information disclosure over the years.\textsuperscript{711}

CDP and IPE show that CSO-organized data-compiling and reporting programs can increase transparency on environmental information. The main difference between these two organizations’ programs is the data source. CDP relies on voluntary data submissions from companies under investors’ requests, while IPE depends on governmental data to monitor companies’ legal compliance and voluntary efforts. Because the ways to obtain data differ, only a portion of CDP data and information is available to the public, while IPE’s tools and platforms are free to use.\textsuperscript{712}

The two data-compiling and reporting approaches also share similarities. CDP and IPE started with data-compiling and reporting for one environmental topic – mapping carbon emission versus water pollution; the two organizations gradually expanded to cover more environmental topics over the years. Furthermore, both organizations engage with partners from the public and private sectors to grow their data-compiling and reporting programs. IPE positions itself to provide the environmental data to support CSO peers’ missions and agendas, such as providing evidence for environmental responsibility.

\textsuperscript{711} Ma Zuopeng (马作鹏), Gongzhong Huanjing Yanjiuzhongxin Zhuren Ma Jun: Yong Shengtailian Gongtongzhuli Lvsezeren Jianxing (公众环境研究中心主任马军：用生态链共同助力绿色责任践行) [Ma Jun, Director of the Institute of Public and Environmental Affairs: Use the ecological chain to jointly improve the practice of green responsibility], Pengpai (澎湃) [THE PAPER] (Dec. 12, 2019), https://www.thepaper.cn/newsDetail_forward_5218473 (last visited May 23, 2023).

\textsuperscript{712} CDP requires licensing fees to access its databases but no such requirements listed on IPE’s website. See Explore CDP Data, CARBON DISCLOSURE PROJECT, https://www.cdp.net/en/data (last visited May 23, 2023).
litigations. However, no information from open sources indicates that CDP shares a similar position.

### 3.3.4 Research and Education Programs

Professional knowledge is one important asset that CSOs possess. They often develop research and educational programs to spread knowledge and propositions. CSOs' formats for research and education programs are diverse, including but not limited to reports, webinars, workshops and other interactive tools. CSOs can establish research and education programs independently or through cross-sector partnerships. For example, Tide, a brand owned by Procter & Gamble, partnered with the World Wildlife Fund (WWF) to reduce GHG emissions by educating consumers to “washing laundry in cold water.” Tide and WWF believe “the insights gathered from the [research project] on laundry are applicable for all brands seeking to partner with consumers to create positive environmental impact.”

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713 See Dingxi Shi Shengtai Huanjingju Anding Fenju (定西市生态环境局安定分局) [An Ding Branch of the Ecology and Environment Bureau of Dingxi City (of the Gansu Province)], Huanjing Gongyi Susong zai Beijing (环境公益诉讼在北京 (二)) [Environmental public interest litigation in Beijing II] (Jul. 18, 2017), [https://mp.weixin.qq.com/s/0CFLEAV9xtbSVoTIA--XPg](https://mp.weixin.qq.com/s/0CFLEAV9xtbSVoTIA--XPg)

714 See Parts 3.2.2 and 3.2.3.


716 Id.
These research and educational programs often provide free resources and tools for the public and private sectors to use, such as the Hotel Carbon Measurement Initiative launched by the Sustainable Hospitality Alliance (previously International Tourism Partnership) and the World Travel & Tourism Council in June 2012.\textsuperscript{717} The Hotel Carbon Measurement Initiative is a methodology and accessible tool for hotels to calculate the carbon footprint of hotel stays and hosted meetings in their properties.\textsuperscript{718} The two host organizations believe hotels can use the tool to understand their carbon footprint, benchmark their performance, set measurable targets, report to corporate stakeholders and assist customers in booking decisions.\textsuperscript{719}

CSO-organized research and education programs can be paid resources too. Some CSOs, especially industrial associations, provide a portion of free research data and educational resources to the public, while most resources require users to become members or make individual purchases in order to gain access.\textsuperscript{720}

Noted that CSO-organized research programs often serve as a knowledge basis for CSOs to engage with relevant stakeholders to act. For example, a WWF research report found that some banks and investors recognize the potential for environmental,
social, and governance (ESG) risks in seafood, but most lack robust or actionable policies. This WWF report’s findings laid a solid knowledge foundation to establish an initiative that allows environmental INGOs (including WWF) and like-minded investors to work with major seafood companies on developing best sustainable practices to reduce related risks to nature and biodiversity.

The example indicates that CSOs’ research and educational programs can incubate and establish VEPs for relevant issues.

3.4 How Existing Laws Support and Monitor the Effectiveness of CSO-Organized Voluntary Environmental Programs

Many CSOs recognize the importance of measuring program effectiveness, but their abilities vary and resources are scarce for conducting the evaluation. As a result, most nonprofits cannot measure program effectiveness, despite the existence of program evaluation methods. Besides, among existing program-based evaluation


methodologies, there’s currently no good way to measure results across the entire sector.\textsuperscript{725} To address this challenge, the author proposed a framework for CSOs and their stakeholders to evaluate CSO-organized VEPs’ effectiveness and authenticity.

The framework consists of four key indicators that are similar to those discussed in Part 2.3: the willingness of the VEP organizer, the substantial content of the VEP design, stakeholder participation and quality of information disclosure. Each indicator may contain certain sub-indicators relevant to CSO-organized VEPs’ features. In the following sub-sections, the author examines and compares how existing laws in the U.S. and China regulate the proposed indicators (summarized in author’s Table 3.2 below) and whether these legal requirements contribute to CSO-organized VEPs’ effectiveness.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>The U.S.</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Willingness of the VEP Organizer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization’s Nature/Culture</td>
<td>NGOs (including community organizations) formed for public interests and</td>
<td>Requires all organizations, including CSOs to protect the environment.</td>
</tr>
<tr>
<td></td>
<td>have a focus on environmental issues have a stronger willingness among</td>
<td></td>
</tr>
<tr>
<td></td>
<td>all types of CSOs. Some states require all organizations to protect the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>environment.</td>
<td></td>
</tr>
<tr>
<td>CSO’s organizational structure</td>
<td>Regulated by state law. The Internal Revenue Service examines each</td>
<td>Regulated by law. Different type of CSO has their specific requirements for organizational structure.</td>
</tr>
<tr>
<td></td>
<td>nonprofit’s tax-exempt status. Different types of CSO share similar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>organizational structures.</td>
<td></td>
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<tr>
<td>The Substantial Content of VEP Design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Goals</td>
<td></td>
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</tbody>
</table>

\textsuperscript{725} \textit{Id.}
Existing laws set up certain limitations on lobbying and fundraising. CSOs have flexibility and room to determine a VEP’s design.

Existing laws pose requirements on certain types of programs organized by CSOs (especially national social organizations), including seminars and forums, voluntary recognition and standard evaluation.

Existing laws (under CSO’s organizational structure) enable internal stakeholders’ participation in both countries. External stakeholders’ participation is not legally mandated but achieved in practice due to transparent information disclosure.

Table 3.2: How existing laws regulate the proposed indicators for measuring CSO-organized VEPs’ effectiveness.

3.4.1 The Willingness of the VEP Organizer

The “willingness of the VEP organizer” indicator can be reflected in two sub-indicators: the organization’s nature and its organizational structure. The U.S. and China regulate the latter but take different approaches to manage the former. Noted that the collaborating parties of a cross-sector partnership usually remain independent during the partnership. Such partnerships generally do not create new organizational structures under the law and thus are not included in the discussion.

The U.S.
At the federal level, U.S. law leaves each nonprofit organization to develop and govern its missions and service scope rather than explicitly mandating nonprofit organizations to undertake the responsibility of environmental protection. Therefore, not all nonprofit organizations are established for the public interest or focus on environmental issues.

Nonprofits prioritizing public interest and environmental concerns demonstrate a stronger commitment to developing and implementing effective VEPs, including environmental NGOs and community organizations. These nonprofit organizations play a significant role in advocating for environmental protection because of their mission-driven nature. NGOs and community members are among groups trusted by a majority or near-majority of the public in the U.S.726 Besides, if an industrial group is established to advocate green and sustainable practices within the industry, or such an industry provides pro-environment professional products and services, such industrial groups usually support environmental protection and are more willing to organize VEPs.

As mentioned, nonprofit organizations are formed under state law and are subject to state rules and regulations. Six states (Hawai‘i, Illinois, Massachusetts, Montana, New York, and Pennsylvania) have adopted “green amendments” to their state constitutions, 

declaring a right to a quality environment in their constitutions.\textsuperscript{727} Such environmental rights may pose obligations to nonprofits registered in these states to protect the environment. For example, the Massachusetts Constitution says: “The people shall have the right to clean air and water, freedom from excessive and unnecessary noise, and the natural, scenic, historic, and esthetic qualities of their environment; and the protection of the people in their right to the conservation, development and utilization of the agricultural, mineral, forest, water, air and other natural resources is hereby declared to be a public purpose. The general court shall have the power to enact legislation necessary or expedient to protect such rights.”\textsuperscript{728}

Similarly, the Montana Constitution states: “All persons are born free and have certain inalienable rights. They include the right to a clean and healthful environment and the rights of pursuing life's basic necessities, enjoying and defending their lives and liberties, acquiring, possessing and protecting property, and seeking their safety, health and happiness in all lawful ways. In enjoying these rights, all persons recognize corresponding responsibilities.”\textsuperscript{729}

These environmental rights not only empower individuals and organizations (including CSOs and businesses) within the state to enjoy a clean and healthy


\textsuperscript{728} Mass. Const. Art.97.

\textsuperscript{729} Mont. Const. Art.II (Declaration of Rights) § 3.
environment but also indicate that they must undertake “corresponding responsibilities” of environmental protection derived from the rights.\textsuperscript{730}

Meanwhile, many states have rules governing nonprofits’ organizational structures, include the board of directors, executive officers and members’ annual meetings.\textsuperscript{731} Most states require the board of directors to have at least three directors, but some states (i.e., Maryland and Nevada) allow at least one director.\textsuperscript{732} A nonprofit organization’s board members (individually as “director”) are the fiduciaries who steer the organization towards a sustainable future by adopting and implementing ethical, legal governance and financial management policies (including ensuring the effectiveness of programs and services), as well as by making sure the nonprofit has adequate resources to maximize stakeholders’ support and advance its mission.\textsuperscript{733} A nonprofit’s governance structure empowers executive officers to use authority and undertake responsibility by following decisions made by the board. Similar to for-profit companies, board members

\begin{footnotes}
\footnote{Among the six states that recognize environmental rights, their constitutions may authorize the legislature or the courts to define the meaning of environmental right within the state. \textit{See} Dernbach, \textit{supra} note 745, at section 3 (Scope).}
\end{footnotes}
and executive officers owe fiduciary duties to the nonprofit organization, including duties of care, loyalty and obedience.\footnote{Jeffrey S. Tenenbaum, Esq, \textit{Legal Duties of Nonprofit Board Members}, TENENBAUM LAW GROUP PLLC, Blog (Feb. 11, 2021), \url{https://www.tenenbaumlegal.com/articles/legal-duties-of-nonprofit-board-members/} (last visited Jun. 12, 2023).}

Duty of care means that the directors and officers should give responsible care and concern to the nonprofit organization by ensuring prudent use of all assets, including facility, people, and goodwill.\footnote{See \textit{Board Roles and Responsibilities}, NATIONAL COUNCIL OF NONPROFITS, \url{https://www.councilofnonprofits.org/running-nonprofit/governance-leadership/board-roles-and-responsibilities} (last visited Oct. 6, 2023).} Duty of loyalty has several layers of requirements that direct the directors and officers to (1) make decisions that are in the best interests of the nonprofit organization, (2) recognize and disclose any conflicts of interest, and (3) ensure the nonprofit organization’s operation and activities to advance its purposes.\footnote{Id.} Lastly, the duty of obedience requires the directors and officers to comply with applicable laws and regulations and adhere to the mission when managing the nonprofit organization.\footnote{Id.}

Protected by law, these fiduciary duties prompt directors and officers to fulfill their responsibilities, from developing specific activities to managing the organization. For example, the State of New York’s Nonprofit Corporation Law says that “[d]irectors and officers shall discharge the duties of their respective positions in good faith and with the care an ordinarily prudent person in a like position would exercise under similar

\section*{Notes}


\footnote{See \textit{Board Roles and Responsibilities}, NATIONAL COUNCIL OF NONPROFITS, \url{https://www.councilofnonprofits.org/running-nonprofit/governance-leadership/board-roles-and-responsibilities} (last visited Oct. 6, 2023).}

\footnote{Id.}

\footnote{Id.}
circumstances.”

The Nonprofit Corporation Law also requires a nonprofit’s governing body to “conduct the activities of the corporation[,] have offices and exercise the powers granted by this [law] in any jurisdiction within or without the United States,” and “have and exercise all powers necessary to effect any or all of the purposes for which the corporation is formed.” In other words, directors and officers of nonprofit organizations registered in the State of New York should carry the fiduciary duties beyond border lines.

Unlike state laws, federal tax law generally does not mandate management structures, operational policies, or administrative practices. The Internal Revenue Service asks nonprofit organizations to disclose their governance information under two circumstances: when a nonprofit organization applies for tax-exempt status and when the organization is required to file with the Internal Revenue Service annually.

When a nonprofit organization applies for tax-exempt status under section 501(c)(3) of the Internal Revenue Code, it must submit its organizational documents and bylaws. The Internal Revenue Service will review these documents to ensure that the applicant is organized exclusively for exempt purposes and that the applicant’s proposed

738 N.Y. Not-For-Profit Corp. Law § 717(a) (reflects the duties of care and loyalty).
739 N.Y. Not-For-Profit Corp. Law § 202(a)(11) and (16) General and special powers. (reflects the duty of obedience).
741 Id.
742 Id.
or actual activities are consistent with those documents.\textsuperscript{743} The Internal Revenue Service also pays attention to members and the size of a nonprofit organization’s governing board.\textsuperscript{744} The former indicates whether members are capable and satisfied with the organization’s needs.\textsuperscript{745} The latter implies that the organization obeys tax laws, safeguards its charitable assets and fulfills its missions.\textsuperscript{746} The Internal Revenue Service further is required to review a reporting organization’s board composition to determine whether the board represents a broad public interest and to identify the potential for insider transactions that could result in the misuse of charitable assets.\textsuperscript{747}

Although the Internal Revenue Code does not require nonprofit organizations to have governance and management policies, the Internal Revenue Service is required to evaluate their tax exemption applications and annual information returns to determine whether the organization has implemented policies for executive compensation, conflicts of interest, investments, fundraising, documenting governance decisions, document retention and destruction, and whistleblower claims.\textsuperscript{748}

\textbf{China}

\textsuperscript{743} Id. at 2.
\textsuperscript{744} Id.
\textsuperscript{745} Id.
\textsuperscript{746} Id.
\textsuperscript{747} Id.
\textsuperscript{748} Id.
The Environmental Protection Law of China requires “[a]ll units and individuals shall have an obligation to protect the environment.” Theoretically, as part of “all units,” environmental protection is an obligation rather than a willingness to all social organizations in China, regardless of their mission focuses. However, the Environmental Protection Law does not specify the obligation’s details. Provincial governments develop regulations to lay out the details accordingly, which may vary by province.

For example, the Province of Zhejiang specified industry associations’ obligations to prevent and reduce environmental pollution and ecological damage, including strengthening industry self-discipline, establishing and improving industry standards, educating and sharing the knowledge of laws and regulations on ecological and environmental protection, guiding and supervising members’ business activities. The Province of Guangdong integrated social organizations' obligations as the right to know environmental information, participate in and supervise environmental protection, and report behaviors that pollute the environment and damage the ecology.

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749 Environmental Protection Law of the People's Republic of China, supra note 201, Article 6.

750 Zhejiang Sheng Shengtai Huanjing Baohu Tiaoli (浙江省生态环境保护条例) [Regulations on the Protection of the Ecological Environment of Zhejiang Province], adopted at the 36th Meeting of the Standing Comm. of the Thirteenth Provincial People's Cong. of Zhejiang on May 27, 2022 and entered into effect on August 1, 2022. Article 8, available at https://www.zj.gov.cn/art/2022/5/30/art_1229417063_2407025.html

751 Guangdong Sheng Huanjing Baohu Tiaoli (广东省环境保护条例) [Environmental Protection Regulations of Guangdong Province], adopted at the 13th Meeting of the Standing Comm. of the Tenth Provincial People's Cong. of Guangdong on September 24, 2004, revised at the 13th Meeting of the Standing Comm. of the Twelfth Provincial People's Cong. of Guangdong on January 13, 2015, first amended at the 7th Meeting of the Standing Comm. of the Thirteenth Provincial People's Cong. of Guangdong on
Like the U.S., China also regulates social organizations' organizational structure. To establish a charitable organization, the founder can choose the form as a foundation, social group, or social service organization.\textsuperscript{752} Regardless of which form, a charitable organization’s charter shall include “the composition and duties of the decision-making and implementation bodies, and internal oversight mechanisms.”\textsuperscript{753}

According to Regulations for the Management of Foundations (2004), a foundation should establish a board of directors with between 5 and 25 members, which is the foundation’s decision-making body.\textsuperscript{754} A board of directors will appoint a chair, deputy chair and general secretary elected from amongst their membership, and the chair of the board is the foundation’s legal representative.\textsuperscript{755} A foundation should also have a supervisory official whose responsibility is to “keep check of the financial records and accounts of the foundation in accordance with a process outlined in the charter and monitor the board’s compliance with the charter and the law.”\textsuperscript{756} The supervisory official has the right to question and make suggestions to the board when attending board meetings, and should also report on relevant matters to the governmental agency in

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\textsuperscript{752} Charity Law of the People's Republic of China, see supra note 528.
\textsuperscript{753} Id. Article 11.
\textsuperscript{754} Regulations on Foundation Administration, supra note 531, Articles 20-21.
\textsuperscript{755} Id. Article 20.
\textsuperscript{756} Id. Article 22.
charge of registration, the professional leading unit, and the tax and auditing authorities.\textsuperscript{757}

Instead of listing specific requirements on the organizational structure of a social organization, the 2016 revised Regulations on the Management of Registration of Social Groups only requires “[a] number of full-time staff members corresponding to the organization’s professional activities.”\textsuperscript{758} Meanwhile, the social group’s charter should include a “[d]emocratic organizational management system, and the procedure by which the executive body is produced.”\textsuperscript{759}

In 2018, the Ministry of Civil Affairs issued the draft of Regulations on the Management of Registration of Social Organizations for comment.\textsuperscript{760} The draft consolidates all types of social organizations’ establishment and registration requirements. Particularly, it states that social groups should establish a general assembly of members as the organization’s decision-making organ, which is responsible for exercising the power to formulate and revise charters and membership fee standards, revising measures of electing responsible parties, directors, and supervisors, deliberating and approving the work report and financial report of the board of directors, and deciding

\textsuperscript{757}Id.
\textsuperscript{758} Regulation on Registration and Management of Social Groups, \textit{supra} note 511, Article 10(4).
\textsuperscript{759} Id. Article 14(4).
\textsuperscript{760} Shehui Zuzhi Dengji Guanli Tiaoli (Cao’an Zhengqiu Yijiangao) (社会组织登记管理条例 (草案征求意见稿))(Regulations on the Registration and Management of Social Organizations (Draft for Comments)), issued by the Ministry of Civil Affairs for public comments on August 6, 2018, \url{https://www.sohu.com/a/245416335_797043} (last visited Oct. 6, 2023) As of 2023, no further update on the passage of the draft regulation.
on matters relating to terminating the social group, and other authorities outlined in the charter.\textsuperscript{761} The draft regulations also stated that social groups should establish a board of directors, which reports to and serves as the executive body of its general assembly.\textsuperscript{762}

For social service organizations established by the private sector, existing regulations only require such organizations to have a “necessary organizational structure” but do not specify the requirements of the organizational structure.\textsuperscript{763} The Ministry of Civil Affairs issued the draft regulations on managing private social service organizations in 2016.\textsuperscript{764} It required that social service organizations establish a board of directors with 3 to 25 directors as the decision-making body.\textsuperscript{765} Furthermore, the draft regulations stated that social service organizations “may establish execution bodies” to organize and implement the board of directors’ resolutions and other authority provided by the charter\textsuperscript{766} and “may establish supervisors or a board of supervisors comprised of three or

\textsuperscript{761} Id. Article 41.
\textsuperscript{762} Id. Article 42.
\textsuperscript{764} Minban Feiqiyedanwei Dengji Guanli Zangxintiaoli (Xiuding Cao’an Zhengqiu Yijiangao) (民办非企业单位登记管理暂行条例(修订草案征求意见稿))[Interim Regulations on the Registration and Management of Private Non-Enterprise Units (Revised Draft for Comments)], released by the Ministry of Civil Affairs on May 26, 2016, https://www.gov.cn/xinwen/2016-05/26/content_5077073.htm (last visited Oct.6, 2023). As of 2023, no further update on the passage of the draft regulation.
\textsuperscript{765} Id. Articles 27-28.
\textsuperscript{766} Id. Article 29.
more people” to supervise and monitor the social service organization’s work and operation.\footnote{Id. Article 30.}

Another highlight of the draft regulations is that it affirmed that “social organizations shall be responsible for the veracity, accuracy, completeness, and timeliness of information disclosures, and must not have any misrepresentations, misleading statements or major omissions,” and should “accept news media and public oversight.”\footnote{Id. Article 62.} This provision empowers the public and news media as another supervisory party to monitor social organizations’ work.

From the above, Chinese law mandates CSOs to prioritize environmental protection, regulating their commitment to environmental causes. The U.S. may require CSOs to undertake similar obligations depending on the state law. In practice, principle-like environmental obligations must be laid out in detail or linked to existing environmental requirements to be effective. Both countries enforce regulations on CSOs’ organizational structures, ensuring the establishment of relevant mechanisms for decision-making, implementation, and supervision.

3.4.2 The Substantial Content of VEP Design

The “substantial content of VEP design” indicator includes program goals, focused topics, targeted groups and incentives. These sub-indicators are key design elements that contribute to a VEP’s effectiveness. Program organizers must consider
these elements when designing VEPs. Existing laws in the U.S. and China leave room for CSOs to develop their VEPs with imposing some limitations.

**The U.S.**

At the federal level, the Internal Revenue Code restricts nonprofit organizations’ activities. The primary one is that “all section 501(c)(3) organizations are prohibited from directly or indirectly participating in, or intervening in, any political campaign on behalf of (or in opposition to) any candidate for elective public office.”769 Such prohibition includes “contributions to political campaign funds or public statements of position (verbal or written) made on behalf of the organization in favor of or in opposition to any candidate for public office.”770 Noted that most NGOs in the U.S. are registered as


770 *Id.* Noted that the landmark case *Citizens United v. Federal Election Commission* struck down legislative and judicial restrictions that have been in place for decades, preventing corporations and labor unions from using general treasury funds on political advertising during federal elections. The case redraws the boundary lines for organizations that engage in activities designed to influence the outcome of elections, which is permitted under the tax laws for 501(c)(4)s, 501(c)(6)s and other 501(c) groups, as long as such activities do not constitute the primary purpose of such organizations. However, the decision will not affect 501(c)(3) organizations, which are prohibited under the tax laws from engaging in any electioneering activities, and it will not affect lobbying and other non-electoral activities by tax-exempt organizations. The disclaimer and disclosure requirements for 501(c)(4)s, 501(c)(6)s and other 501(c) groups imposed by the federal election laws in connection with political expenditures remain in place as well. *See Citizens United v. Federal Election Com’n*, 558 U.S. 310 (2010); also *see* Noah Ehrenpreis, *Does the Citizens United Decision Affect Not-for-Profit Organizations? PROSKAUER ROSE LLP, Blog* (March 15, 2010),
501(c)(3) organizations. 771 This limitation sets boundaries for most CSO-organized VEPs’ content. 772 Violating this prohibition may result in denial or revocation of the organization’s tax-exempt status and require it to pay an excise tax equal to five percent of its lobbying expenditures for the year it ceases to qualify for exemption. 773 Internal Revenue Service’s auditors investigate thousands of NGOs’ financial affairs each year, resulting in a handful of organizations revoking their tax-exempt status and paying fines and taxes. 774

However, the prohibition of engaging in political activities does not completely restrict 501(c)(3) organizations from engaging in lobbying activities. Lobbying, different


771 See supra Part 3.1.1.

772 Revenue ruling 61-177 dictates that organizations that are exempt under IRC § 501(c)(4), (c)(5), and (c)(6) do not have any limitations on the extent of lobbying they may participate in as long as those lobbying activities relate to their exempt purpose. Unlike 501(c)(3)’s, these organizations won’t lose their tax-exempt status despite being formed to influence legislation. In addition to lobbying, these organizations may be involved in political campaigns, however, political campaigning may not be their primary activity. Noted that Industrial associations are 501(c)(6) organizations. See Teal Strammer, Lobbying and Political Campaigning Rules for 501(c)(4), (c)(5), and (c)(6) Organizations, HILL, BARTH & KING LLC., Blog, Dec.6, 2021, https://hbkcpa.com/lobbying-and-political-campaigning-rules-for-501c4-c5-and-c6-organizations/


from other political activities, refers to activities attempting to influence legislation.\footnote{Political and Lobbying Activities, \textsc{Internal Revenue Serv.}, \textit{available at} https://www.irs.gov/charities-non-profits/charitable-organizations/political-and-lobbying-activities; Lobbying, \textsc{Internal Revenue Serv.}, \textit{available at} https://www.irs.gov/charities-non-profits/lobbying (last visited Jun. 2, 2023)} The Internal Revenue Service allows 501(c)(3)s to engage in lobbying only as long as it is not a “substantial part” of their activities.\footnote{Id.} To measure and determine the ambiguous concept of “substantial part,” the Internal Revenue Service considers various factors, including the time devoted (by both compensated and volunteer workers) and the expenditures devoted by the organization to the activity.\footnote{Measuring Lobbying: Substantial Part Test, supra note 773; Measuring Lobbying Activity: Expenditure Test, \textsc{Internal Revenue Serv.}, \textit{https://www.irs.gov/charities-non-profits/measuring-lobbying-activity-expenditure-test} (last visited Jun. 2, 2023)}

If a nonprofit organization engages in direct lobbying activities at the federal level, it needs to register and report these activities under the Lobbying Disclosure Act, regardless of the type of organization.\footnote{Only organizations that meet the following thresholds are required to register and report their lobbying activity under the Lobbing Disclosure Act: (1) the organization’s lobbyist has made more than one lobbying contact and has spent at least 20\% of his or her time on lobbying activity in a quarterly period; and (2) the organization employing the lobbyist spent at least $14,000 on lobbying during that quarterly period. The dollar threshold is updated periodically. The $14,000 threshold was in effect as of 2021. \textit{See Lobbying Disclosure Act Guidance-Section 4}, \textit{U.S. H. R.}, last revised Feb. 28, 2021, \textit{https://lobbyingdisclosure.house.gov/amended_lda_guide.html#section4} (Last visited Jun. 2, 2023)} Nonprofit organizations with only occasional federal contacts (including occasional meetings with members or staff, or sending occasional letters to Congress) will not need to register under the Lobbying Disclosure Act.
The Secretary of the Senate and the Clerk of the House are responsible for monitoring compliance with the Lobbying Disclosure Act and must ensure that the nonprofit organizations fulfill “accuracy, completeness, and timeliness of registration and reports.”

Laws and regulations at the state and local levels also regulate lobbying activities organized by nonprofit organizations, which may supplement the federal requirements. For example, the laws of the City of New York and the State of New York have a broader definition of lobbying than the Internal Revenue Code. The federal law only covers attempting to influence legislative activities, while the local and state laws’ definitions include attempting to influence administrative rules “having the force and effect of law,” as well as procurements and certain other actions by government agencies, boards and commissions. Unlike the Internal Revenue Code, the lobbying regulations of the City of New York and the State of New York do not limit the ratio of lobbying activities in an organization’s activities. Instead, each requires nonprofit organizations to register and disclose their lobbying activities if a $5,000 expenditure threshold has been met.
Government's desire to regulate lobbying is consistent with a legitimate interest of the public and public officials in knowing and thus being able to evaluate the source of funds, the staff performance and the interests involved in lobbying campaigns. Furthermore, to retain people's trust, government must establish and enforce rules like lobbying disclosure to ensure the integrity of governmental processes. Some scholar pointed out that government should grant more lobbying flexibility to organizations focusing on social welfare so that they can influence public policy in furtherance of their missions.

In addition to lobbying, almost all states have laws regulating charitable fundraising. To reduce fraud, each state designates the attorney general’s office (i.e., California) or other state government departments (i.e., New York) to maintain a list of registered nonprofit organizations and investigate reported fraud and abuse complaints.

Lobbying and fundraising are two bottom lines the U.S. law set up to manage nonprofit organizations’ activities. In other words, program organizers have great

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786 *Id.*
788 Board Source, *supra* note 774.
789 *Id.*
flexibility to determine and design their VEP and other program activities as long as they comply with relevant legal responsibilities at different levels.

**China**

As discussed, with the increasing number of social organizations in recent years, the central government has shifted its attention from boosting the quantity to focusing on these organizations’ high-quality development. The central government released rules to manage social organizations’ activities in this context.

The Administrative Measures for Managing Seminars and Forums Organized by Social Organizations restricts social organizations from doing certain activities when they organize seminars and forums, including (1) using the name of the Communist Party and government organs to organize or jointly organize with party and government organs; (2) conducting activities that are beyond the missions stated in the organization’s bylaws; (3) forcing other organizations or individuals to participate or collect inappropriate fees; (4) conducting activities such as brand promotion, achievement release, and paper publication that charge participants for fees; (4) spending or traveling with public funds in disguise; and (5) distributing grants, gifts, expensive souvenirs, various securities, and payment vouchers. Furthermore, social organizations shall follow their organizational procedures to develop and report activities in detail to the relevant administrative department.

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department’s supervisory unit for filing, including each activity’s name, expected goal, content, scale, scope of participation, time, location, source of funds and other relevant information. Since seminars and forums are common formats for CSOs to convey research and education programs, naturally, these limitations apply to social organizations’ VEPs.

The Notice on Issues Related to Managing the Training Activities of National Social Organizations (the Notice) is another administrative document discussing some general requirements that national social organizations should follow when managing their training activities, including strengthening training quality, improving logistic management of training activities, prohibiting training frauds, and complying with relevant laws and regulations to manage funds. It is worth pointing out that the primary reason for issuing this Notice is to warn national social organizations not to conduct bribery and corruption in disguise of training activities.

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791 Id. Article 4.
792 Guanyu Guifan Quanguoxing Shehui Zuzhi Peixun Huodong Youguanwenti de Tongzhi (关于规范全国性社会组织培训活动有关问题的通知)[Notice on Issues Related to Managing the Training Activities of National Social Organizations], issued by the Ministry of Civil Affairs on February 21, 2023.
793 Pu Xiaolei (蒲晓磊), Minzhengbu Guifan Shehui Zuzhi Peixun Hudong Bude zai Fengjingmingshengqu Juban Peixunban (民政部规范社会组织培训活动 不得在风景名胜区举办培训班)[The Ministry of Civil Affairs regulates the training activities of social organizations- Training classes are not allowed to be held in scenic spots], Fazhi Ribao (法治日报) [LEGAL DAILY] (Feb. 28, 2023), http://epaper.legaldaily.com.cn/fzrb/content/20230228/Article07005GN.htm (last visited May 11, 2023).
To ensure social organizations evaluate the performance of voluntary standards’ participants and grant voluntary recognitions in a fair environment, the government released Administrative Measures for the Management of Social Organization Appraisal and Commendation Activities in 2022 (the 2022 Measures), which was revised based on the Interim Measures on the Management of Social Organization Appraisal and Commendation Activities issued in 2012.\(^{794}\) According to the 2022 Measures, only social organizations not penalized or included in various exception lists in the past three to five years can develop such recognition programs.\(^{795}\) Furthermore, qualified social organizations must submit their standard evaluation procedures and recognition activities to the CPC Central Committee and government at the relevant level for review and approval.\(^{796}\) The CPC Central Committee and the State Council approve national social organizations' evaluation and commendation projects; and the provincial governments are responsible for the projects submitted by local social organizations.\(^{797}\) In other words,

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\(^{795}\) Administrative Measures for the Management of Social Organization Appraisal and Commendation Activities, supra note 794, Article 6.

\(^{796}\) Id. Article 5.

\(^{797}\) Id.
social organizations must follow the 2022 Measures to develop and implement their voluntary recognition and standard evaluation programs.

Chen and Tian mentioned that “the ability of social organizations to lobby and bargain with the government has become a crucial indicator that allows social organizations to participate in social governance.” That is because “the stronger the social organization's lobbying and bargaining power to the government, the better for government officials to understand the function and value of social organizations' participation in social governance, which prompts the government to change its relationship with social organizations, and increases the government’s willingness to cooperate with social organizations.” Compared to the U.S., China has no laws and regulations targeting social organizations’ lobbying activities. Nevertheless, it does not mean that such activities are absent in China. Kennedy and Deng summarized ten common lobbying approaches used by industrial groups and associations, including submitting public policy advice to government officials verbally and in writing,

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supporting academic research on the industry, hosting policy seminars and inviting government officials to participate. Among the associations that engage in lobbying activities, the vast majority of national industry associations regard the ministries and commissions of the State Council and local governments as their main lobbying targets; some highly independent associations regard the National People's Congress and the Political Consultative Conference as important lobbying targets.

3.4.3 Stakeholder Participation

Stakeholder participation can improve a VEP’s effectiveness if the CSO organizer provides its internal and external stakeholder groups with opportunities to participate in developing and implementing VEPs.

CSOs’ internal and external stakeholders vary based on organization type. NGOs, philanthropy groups and community organizations’ internal stakeholders include employees, managers, board members, and volunteers, and their external stakeholders include funders, beneficiaries, contractors, government (including regulators), community partners, and media. Industrial groups’ primary internal stakeholders are members, and the key external stakeholders include industry professionals, government

800 Scott Kennedy & Guosheng Deng (甘思德, 邓国胜), Hnagyexiehui de Youshui Xingwei jiqi Yingxiangyinsu Fenxi (行业协会的游说行为及其影响因素分析)[Analysis of the Factors Shaping the Lobbying Behavior of Industry Associations], Jingjishehui Tizhi Bijiao (经济社会体制比较)[COMPAR. ECON. & SOC. SYS.], No. 4, 2012, 147-156, at 152-153.
801 Id.
(including regulatory bodies), media, other relevant industry associations, consumers and the general public.\textsuperscript{803}

Scholars found that internal stakeholders impact a CSO’s performance, while external stakeholders influence the organization’s credibility and community acceptance.\textsuperscript{804} Lack of involvement could lead to uninformed stakeholders experiencing a declining sense of commitment, and thus can affect an organization’s sustainability.\textsuperscript{805} In the U.S. and China, legal requirements on CSO’s organization structure indirectly enable internal stakeholders to participate in developing and monitoring a VEP. No laws explicitly require CSOs to engage external stakeholders during a VEP’s lifecycle.

Nevertheless, CSOs actively engage with external stakeholders to facilitate essential communication, gathering valuable suggestions and feedback.\textsuperscript{806} In practice, CSOs use various techniques and tools to enhance relationships with their stakeholders, including but not limited to organization websites, printed materials, social media, annual reports, and in-person and online activities.\textsuperscript{807} For example, the All-China Environment

\begin{footnotesize}


\textsuperscript{805} Id.

\textsuperscript{806} Id. at 38-42.

\textsuperscript{807} Id.
\end{footnotesize}
Federation, a Chinese nonprofit organization, posts a notice on its website inviting research institutions, corporations, and other organizations to co-develop voluntary standards to be used in different fields.\textsuperscript{808}

Because CSOs’ communication channels are generally open to the public, external stakeholders can proactively monitor the performance of these organizations’ VEPs. For example, the news media Guardian, the German weekly Die Zeit and SourceMaterial (a nonprofit investigative journalism organization) jointly investigated the rainforest protection programs registered through the Verra Carbon Credit Registry.\textsuperscript{809} Verra is a nonprofit organization that builds standards for GHG mitigation activities, including the world’s leading carbon crediting program.\textsuperscript{810} Many multinational companies purchase carbon credits from projects registered under the Verra Registry to fulfill their GHG reduction commitments.\textsuperscript{811} The investigation questioned these rainforest programs’ actual impacts, effectiveness and related carbon credits.\textsuperscript{812} Although Verra


\textsuperscript{809} \textit{See} Patrick Greenfield, \textit{Revealed: more than 90% of rainforest carbon offsets by biggest certifier are worthless, analysis shows}, \textbf{THE GUARDIAN} (Jan. 18, 2023, 09.00 EST), \url{https://www.theguardian.com/environment/2023/jan/18/revealed-forest-carbon-offsets-biggest-provider-worthless-verra-aoe} (last visited Oct. 6, 2023).

\textsuperscript{810} \textit{Overview}, VERRA, \url{https://verra.org/about/overview} (last visited Oct. 6, 2023)

\textsuperscript{811} Greenfield, \textit{supra} note 809.

\textsuperscript{812} \textit{Id.}
responded the investigation’s results were incorrect, the nonprofit organization later launched a public consultation on proposed changes to strengthen and update the Registry’s rules. The example demonstrates information disclosure is a prerequisite for external stakeholders’ valid participation in monitoring CSOs’ impact.

3.4.4 The Quality of Information Disclosure

The “quality of information disclosure” indicator includes three sub-indicators: reporting standard, reporting frequency, and verification requirements. The U.S. and China regulate these sub-indicators by asking CSOs to follow a specific format to disclose information about the organization. Both countries’ laws require CSOs to disclose only financial information about their programs.

The U.S.

Under federal tax laws, nonprofits must provide copies of annual tax returns and related schedules and attachments for the past three years, using the Form 990 series (including 990, 990-PF, 990-EZ, and 990-N) to disclose certain information to the

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The required disclosed information in Form 990 includes an organization’s activities and governance, revenues, expenses, assets and fund balances, and program service accomplishments.

In the activities and governance section, nonprofit organizations need to report changes to the organizational management systems in the past year, specific management policies, and information about employees and independent contractors. Nonprofit organizations also need to disclose all kinds of revenues and costs, such as their program services’ financial information and other types of investment. A program service is defined as an activity of an organization that accomplishes its exempt purpose.

The statement of program service accomplishments section requires reporting organizations to describe the program service accomplishments for their three program services with the largest expenses. Reporting organizations should use specific measurements, such as clients served, days of care provided, number of sessions or events held, or publications issued, to describe their services’ accompaniment. The Internal Revenue Service instructs nonprofit organizations not to report a fundraising

\[816\] Id.
\[818\] Id.
\[819\] Id.
\[821\] FORM 990: RETURN OF ORGANIZATION EXEMPT FROM INCOME TAX, supra note 817.
\[822\] INSTRUCTIONS FOR FORM 990, supra note 820, at 11.
activity as a program service accomplishment unless it is substantially related to the accomplishment of the organization's exempt purposes.\textsuperscript{823}

Federal laws’ requirements show that nonprofit organizations’ information disclosure drill down to the level of their program activities. Since the Internal Revenue Service’s responsibility is to enforce federal tax laws, the agency primarily collects the financial information of reporting organizations’ programs, such as expenses, revenues and investments. Non-financial impacts are not required to be disclosed under federal laws.

Although each state’s law may differ, all states require nonprofit organizations to file an annual report.\textsuperscript{824} Most states ask nonprofits that solicit donations to submit an initial registration and to follow up with annual renewal registrations that describe the type of fundraising activities the nonprofit is engaged in, known as “Charitable Solicitation Registration.”\textsuperscript{825} For example, the State of New York asks nonprofit organizations to submit funding disclosure reports.\textsuperscript{826} Nonprofit organizations that have spent on covered communications in an aggregate amount or fair market value exceeding

\begin{footnotesize}
\textsuperscript{823} \textit{Id.} at 10.
\textsuperscript{825} \textit{Id.}
\textsuperscript{826} The period may vary depending on the type of nonprofit. \textit{See} N.Y. Exec. Law § 172-B, E and F. https://www.nysenate.gov/legislation/laws/EXC/172-B
\end{footnotesize}
$10,000 in a calendar year must include such expenditure. Covered communication is a communication used by nonprofits to solicit donations from 500 or more people.

Similar to information disclosure requirements at the federal level, state laws primarily target nonprofits’ organizational financial and solicitation information. However, state laws usually do not require nonprofits to disclose key programs’ detailed financial information like the federal laws.

**China**

Similarly, China regulates social organizations’ information disclosure, including the reporting frequency and format.

Before 2018, the Interim Regulations on the Management of Registration of Private Non-enterprise Units (1998), Regulations on the Management of Registration of Social Organizations (2016 revised), and Regulations for the Management of Foundations (2004) explicitly stated the information social organizations should submit to governmental agencies and disclose to the public. In 2018, the Measures on Information Disclosure by Charitable Organizations (the 2018 Measures) entered into

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828 *Id.*

829 Interim Regulations on the Registration and Management of Private Non-enterprise Units, *supra* note 781, Articles 9, 21 and 23 state the required documents and information to be submitted to the relevant registration agency or their professional supervisory units.

830 Regulation on Registration and Management of Social Groups, *supra* note 511. Articles 16, 26, 27, and 28 state the required documents and information to be submitted to the relevant registration agency or their professional supervisory units.

831 Regulations on Foundation Administration, *supra* note 531. Articles 9, 12, 13, 30, 33, 36, 38 and 40 state the required documents and information to be submitted to the relevant registration agency or their professional supervisory units or the public.
effect. As discussed, charitable organizations can be established in the form of foundations, social organizations and social service agencies. The 2018 Measures indicate the latest information disclosure requirements for social organizations in China.

Under the 2018 Measures, charitable organizations are required to disclose: (1) the basic organization information, such as the charter, the organizational structure, names of the officers, and internal management systems; (2) the annual salary received by the top five highest compensated employees and foreign travel expenses; (3) annual reports; (4) public fundraising activities and follow-up operations for utilizing the donations; (5) major financial activities and changes; and (6) volunteer activities and logistics. The 2018 Measures also require charitable organizations to use certain formats and platforms to disclose the required information above.

Besides, the central government developed some policies related to social organization management. In 2016, the Opinions on Reforming the Management System of Social Organizations to Promote the Healthy and Orderly Development of Social

832 Cishan Zuzhi Xinxi Gongkai Banfa (慈善组织信息公开办法) [Measures on Information Disclosure by Charitable Organizations], issued by the Ministry of Civil Affairs on August 6, 2018, No.61, available at https://www.gov.cn/zhengce/zhengceku/2018-12/31/content_5440445.htm
833 Id. Article 4.
834 Id. Article 5.
835 Id. Article 6.
836 Id. Article 8, 9, 10 and 15.
837 Id. Article 12 and 13.
838 Id. Article 17.
839 Id. Articles 3, 4, 6, 12, 13 and 14.
Organizations (the 2016 Opinions) was issued. It proposed a few measures to improve social organization management, including establishing an "abnormal list" and "blacklist" of social organizations, strengthening coordination and linkage with relevant government departments to improve the efficiency of managing social organizations, linking the actual performance of social organizations to tax incentive qualification, and outsourcing certain governmental work through service procurement. Chinese scholars appraised the issuance of the 2016 Opinions for illustrating the social organization sector’s role, providing a development direction, and answering how to motivate social organizations to improve public services.

To materialize the suggestions listed in the 2016 Opinions, the Ministry of Civil Affairs takes the lead in compiling and disclosing social organizations’ basic information.

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841 Id.

to society through building a national governmental affairs service platform.\textsuperscript{843} This unified social organization information query system allows the public to check and examine the status of a registered social organization and its information,\textsuperscript{844} including the social organization’s name, unified social credit code (or registration certificate number), legal representative, date of establishment and registration, address, registration management agency, registration status, registered capital, etc.\textsuperscript{845}

To further implement the suggestions discussed in the 2016 Opinions, the Ministry of Civil Affairs issued the Measures on the Management of the Social Organizations’ Credit Information in 2018, to ensure relevant governmental agencies (primarily the Department of Civil Affairs) at all levels properly collect and compile social organizations’ information when registering and managing these organizations.\textsuperscript{846}

Based on national laws and regulations, local governments can develop their own social

\textsuperscript{843} Guanyu Shixing Xingzheng Shenpi Zhong Gongmin, Qishiyedanwei he Shehui Zuzhi Jibenxinxi Gongxiang de Tongzhi (关于实行行政审批中公民、企事业单位和社会组织基本信息共享的通知) [Notice on Implementing Basic Information Sharing of Citizens, Enterprises, Institutions, and Social Organizations in Administrative Examination and Approval], jointly issued by multiple national departments on February 28, 2017. Article 1(1).

\textsuperscript{844} \textit{Id.}

\textsuperscript{845} \textit{See} Zhongguo Shehuizuzhi Zhengwufuwu Pingtai (中国社会组织政务服务平台)[National Governmental Affairs Service Platform for Social Organizations], Zuzhi Chaxun ( 组织查询 ) [Search for Social Organizations], \url{https://xxgs.chinanpo.mca.gov.cn/gsxt/newList} (last visited Oct. 13, 2023)

\textsuperscript{846} Shehui Zuzhi Xinyong Xinxi Guanli Banfa (社会组织信用信息管理办法)[Measures on the Management of the Social Organizations’ Credit Information], issued by the Ministry of Civil Affairs on January 24, 2018, No.60, Article 1 and Article 4, available at \url{https://www.gov.cn/gongbao/content/2018/content_5288822.htm} (last visited Jun. 12, 2023)
organizations’ information disclosure measures and platforms for social organizations to submit and update relevant information and public access data.\textsuperscript{847}

Like the U.S., existing information disclosure requirements are centered around social organizations as a whole and certain program activities’ financial information. For example, the Measures on Information Disclosure by Charitable Organizations require social organizations to disclose public fundraising programs’ detailed information, including beneficiaries and their locations.\textsuperscript{848} The law does not require social organizations to quantify their programs’ non-financial impacts. In practice, social organizations can elaborate on their program details and performance in the annual working reports, but these reports’ quality may vary.

3.5 What is Needed: From CSO-Organized Voluntary Environmental Programs to Future Legislation

Upon reviewing CSO-organized VEPs and related laws in the U.S. and China, the author identified four essential factors that can increase the likelihood of transitioning CSO-organized VEPs into future legal legislation.

First, aligning the CSO-organized VEP’s topic with legislative subjects in the government’s medium-to-long-term plans. Regardless of the country, most CSOs’

\textsuperscript{847} See Service Platform of Social Organizations in Guangdong Province (广东社会组织综合信息服务平台) (\url{http://smzt.gd.gov.cn/shzz/index/}) and Service Platform of Social Organizations in Yunnan Province (云南省社会组织公共服务平台) (\url{https://www.ynshzz.com/login.jsp}) as examples.

\textsuperscript{848} Measures on Information Disclosure by Charitable Organizations, \textit{supra} note 832, Articles 9-10.
missions are public welfare related. The nature determines that CSOs shall proactively react to specific issues through their program activities, sometimes even more responsive than the governments’ action. The proposed Federal Supplier Climate Risks and Resilience Proposed Rule integrated CDP’s supply-chain GHG emission management model is a typical example.\textsuperscript{849} CDP’s well-established approaches meet the government’s need to reduce GHG emissions. Therefore, the U.S. government recognized and adopted the CSO efforts.

Similarly, if a group standard is leading on specific topics, has been adopted and implemented with positive results, and deserves to be promoted nationally, the Chinese government would encourage the CSO to convert this voluntary standard into a mandatory national standard.\textsuperscript{850} Therefore, many CSOs in China intentionally develop group standards to sync with various national policies to increase their organizations’ influence. For example, since China established the goals of reaching carbon peak before 2030 and achieving carbon neutrality by 2060,\textsuperscript{851} the first patch of group standards

\textsuperscript{849} Federal Supplier Climate Risks and Resilience Proposed Rule, see supra note 702.
\textsuperscript{850} See Tuanti Biaozhun Guanli Guiding (团体标准管理规定)[Regulations on Group Standard Management], developed by Standardization Administration of China (SAC) and the Department of Civil Affairs, adopted at the 5th Meeting of State Council’s Inter-Minister Meeting Mechanism to coordinate and promote standardization work, issued and entered into effect on January 9, 2019, Article 28; Guojia Biaozhun Guanli Banfa (国家标准管理办法)[Measures on National Standard Management], issued by State Administration of Market Regulation on September 9, 2022, Order No.59, entered into effect on March 1, 2023, Article 16.
\textsuperscript{851} Chinese President Xi declared that the country aims to have CO2 emissions peak before 2030 and achieve carbon neutrality by 2060. See U. N., ‘Enhance solidarity’ to fight COVID-19, Chinese President urges, also pledges carbon neutrality by 2060, UN
related to a low-carbon economy was initiated in 2022, aiming to “cooperate with the revision of national green product standards.”

Second, establishing the VEP in a form that is relatively likely to transition into law. Reviewing the four types of VEP activities in Part 3.3, programs in the form of voluntary standards are more likely to be transitioned to future legislation. The rest of the program forms are valuable tools for improving social actors’ understanding and participation in environmental governance.

Third, the CSO-organized VEP’s impact should be significant. To determine whether the VEP’s impact is “significant,” it is necessary to evaluate (1) the scale— if the VEP is a national or global program; and (2) the participants—a. if the number of participants and adopters has increased over time and b. if VEP participants include multinational corporations. Checking these questions helps determine whether a VEP’s targeted groups support the program. If the answers are positive, it may imply less resistance to future legal compliance when the VEP becomes law.

It is worth pointing out that corporate environmental initiatives can be converted into CSO-organized programs. For example, Patagonia's founder and his friend pledged

to donate 1% of their annual sales—not profits—to environmental organizations.\textsuperscript{853} This idea is based on the fact that "companies profit from the resources they take from the earth," therefore, companies should be "responsible for their environmental impact" and "protect those [natural] resources."\textsuperscript{854} Later, Patagonia established the 1% for the Planet nonprofit organization to pledge businesses to advocate more businesses to donate their 1% of annual gross revenues to support environmental organizations and initiatives.\textsuperscript{855} This example shows how an internal corporate initiative became a CSO-organized global network that poses a significant impact on the whole private sector.\textsuperscript{856} However, the prerequisite of such conversion lies in the ethics and environmental awareness of the company leadership (or founder, in Patagonia's case) as Part 2.2.1, which is also this type of conversion’s limitation.

Some companies may not establish a CSO to advocate their values and ideas. Instead, companies may sign open letters (Chângyì shū in Chinese) to demonstrate their support and demand on a specific subject.\textsuperscript{857} Compared to establishing a nonprofit, an

\textsuperscript{853} Our Story, ONE PERCENT FOR THE PLANET, https://www.onepercentfortheplanet.org/about/story
\textsuperscript{854} Id.
\textsuperscript{855} Id.
\textsuperscript{856} According to One Percent for the Planet, the organization has 5,700 members in 112 countries, partners with more than 6,300 environmental organizations and has certified giving worthed $500 million USD. See Membership, ONE PERCENT FOR THE PLANET, https://www.onepercentfortheplanet.org/membership (last visited Aug. 13, 2023)
\textsuperscript{857} Examples include: (1) more than 300 businesses signed an open letter calling on the Biden administration to reduce greenhouse gas emissions in the United States to at least half of 2005 levels by 2030. See Eric McDaniel, Hundreds of Companies Call for U.S. To Slash Carbon Emissions, NPR NEWS (Apr. 13, 2021), https://www.npr.org/2021/04/13/986776264/hundreds-of-companies-call-for-u-s-to-
open letter has no legally binding force, which is a temporary format that allows companies to show their attention and attitude on the issue—it doesn't necessarily lead to further action, including strategically advocating for more companies to join or updating the existing agenda if goals are achieved.

Nevertheless, if a CSO can establish a cross-sector partnership with these companies to turn the temporary campaign into an elaborated long-term initiative, the corporate action has the potential to be converted into a CSO-organized VEP. Accordingly, the VEP may be more likely to get companies’ support. For example, over 300 corporate representatives from China’s agricultural industry signed an open letter calling to green the agricultural industry by incorporating environmentally friendly practices. To materialize this campaign, the Soil and Fertilizer Industry Alliance signed a memorandum with companies to explore the way of ecological agriculture, including promoting a healthy farmland ecosystem, reducing the usage of chemical fertilizers and

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slash-carbon-emissions (last visited August 13, 2023) (2) 44 companies proposed to use new technical means to solve the challenges of building energy conservation, emission reduction and environmental protection. See 44 Jia Qiye Lianming Xiang Daibiao Weiyuan Fachu Jieneng Huanbao Changyishu (44 家企业联名向代表委员发出节能环保倡议书) [44 companies jointly issued a proposal for energy conservation and environmental protection to the representatives of the People’s National Congress], Zhongguo Ribao (中国日报) [CHINA DAILY] (Mar. 13, 2018), http://chuangxin.chinadaily.com.cn/2018-03/13/content_35842376.htm

pesticides, and contributing to the goal of Zero Growth Action Plan for Fertilizer Use by 2020 issued by China’s Ministry of Agriculture and Rural Affairs.\textsuperscript{859}

Fourth, the CSO-organized VEP should be effective. Although the paths of CSO development are different in the U.S. and China, existing laws and regulations in these two countries regulate most indicators in the proposed effectiveness evaluation framework. Both countries allow CSOs to design and implement their programs freely while establishing certain limitations to regulate these organizations’ fundraising and other activities. Even though external stakeholder participation is not required by law, it is a standard practice for CSOs to engage external stakeholders through information disclosure.

Noted that VEPs’ effectiveness is not guaranteed even though governments regulate CSO-organized VEPs in many aspects. Therefore, the author developed a checklist (see Table 3.3) that allows internal and external stakeholders to evaluate if a CSO-organized VEP is credible and effective.\textsuperscript{860} The more questions answered “yes,” the more effective the VEP could be.

<table>
<thead>
<tr>
<th>Proposed Framework for Evaluating A CSO-Organized Voluntary Environmental Program:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Willingness of the Company Leadership</strong></td>
</tr>
<tr>
<td><em>CSO Type</em></td>
</tr>
<tr>
<td>1. Is the program organized by an ENGO?</td>
</tr>
<tr>
<td>2. Is the program organized by an industry association related to environmental services or advocated for environmentally friendly practices?</td>
</tr>
<tr>
<td><em>CSO’s Organizational Structure</em></td>
</tr>
</tbody>
</table>

\textsuperscript{859} \textit{Id.}  
\textsuperscript{860} See Parts 3.3 and 3.4 (for the discussions of coming up the listed questions).
3. Is the CSO equipped with internal organs that are responsible for decision-making, implementation and supervisory, respectively?
4. Does the CSO’s broad consist of a certain number of environmental professionals?
5. Does the CSO have mechanisms to ensure its directors and officers fulfill the fiduciary duties?

**The Substantial Content of the Program Design**

*Program Goal*
6. Does the program have a quantifiable goal?
7. Does the CSO advance the goal regularly?

*Program Type*
8. Is the program a voluntary standard (including voluntary recognition)? (if Yes)
   a. Does the CSO upgrade the standard requirements regularly?
9. Is the program a donation-based? (if Yes)
   a. Does the program target individuals?
   b. Does the program target companies or other organizations?
10. Is the program a data-compiling and reporting initiative? (if Yes)
    a. Does the program update questions for data collection and reporting?
    b. Does the CSO develop new topics for data collection and reporting regularly?
11. Is the program a research and educational initiative? (if Yes)
    a. Are the results generated from the research program free to access and use?
    b. Does the CSO apply the research results to practice, regardless of working with other organizations or implementing it alone?

*Specific Metrics for Checking in Progress*
12. Does the program have a mechanism to track participants’ progress regularly?

**Stakeholder Engagement**

*Opportunities for Stakeholders to Participate*
13. Did the CSO provide opportunities for external stakeholders to design the program?
14. Does the CSO disclose adequate information about the program for external stakeholders to understand and monitor the program?
15. Does the CSO systematically collect and review external stakeholders’ feedback during program implementation?
16. Does the CSO provide opportunities to include external stakeholders during program evaluation?

**The Quality of Information Disclosure**

*Reporting Standard*
17. Has the CSO disclosed the program’s non-financial impact and progress?
18. Has the CSO used a consistent format to disclose program performance?

*Reporting Frequency*
19. Has the CSO disclosed the program’s status regularly?
Table 3.3: Proposed Framework for Evaluating A CSO-Organized Voluntary Environmental Program

The last three factors resonate with one essential condition motivating the business sector to develop authentic and effective voluntary environmental commitments—a common understanding of environmental issues shared among different social actors. In other words, impactful CSO-organized VEPs can help cultivate such a common understanding by promoting relevant concepts and ideas before government intervention, regardless of whether the VEP becomes law.

Noted that the premise for realizing these three factors above is that the CSO has the knowledge, skills and resources to develop a well-designed VEP. However, the CSO sector needs the government’s support to provide financial and non-financial resources, regardless of whether countries like China (whose CSO sector’s development started relatively late) or countries like the U.S. (whose CSO sector is polished).

In the U.S., federal agencies provide grants to environmental nonprofit organizations to support their projects, such as the U.S. EPA. Many states have a

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861 See Part 2.5.
center that nonprofit organizations can turn to for funding opportunities, educational materials and networking.\textsuperscript{863} Similarly, the Chinese government provides funding to CSOs through grants and procurement services.\textsuperscript{864} Governments at all levels conduct training on organization management and capacity building to improve social organizations’ expertise.\textsuperscript{865} Noted that obtaining governmental resources is competitive, CSOs can work with academic institutions and professional associations (such as bar associations) to leverage their expertise as an alternative. To encourage collaborations between different CSOs, the government can create a platform for professional organizations and institutions to register, providing pro bono training and technical funding for assistance agreements to state and local governments, tribes, universities, nonprofit recipients, and other entities.)

\textsuperscript{863} See Our Programs, NJ CENTER FOR NONPROFITS, https://njnonprofits.org/ourprograms/ (last visited Oct. 12, 2023) (as an example).

\textsuperscript{864} Shen Yongdong & Yu Zhihong (沈永东，虞志红), Zhengfuzizhu Yingxiang Shehuizuzhi Feizhengfu Qudao Chouzishouru (政府资助影响社会组织非政府渠道筹资收入) [Government funding affects social organizations’ fundraising income through non-governmental channels], Jingji Shehui Tizhi Bijiao (经济社会体制比较) [J. COMPAR. ECON. SOC. SYS.], Vol.4, 2019, available at http://www.ngo-research.com/Html/NewsView.asp?ID=867&SortID=31

\textsuperscript{865} See Yulinshi Shengtai Huanjingju (榆林市生态环境局)[Municipal Ecology and Environment Bureau], [How to give full play to the active role of social organizations in environmental protection? Special training is coming! (如何发挥社会组织在环境保护中的积极作用？专题培训来啦！), press release (Dec. 13, 2020), https://mp.weixin.qq.com/s/As1xcARoi3ADZrr8bc7_bQ (as a training example organized by the government of Province of Shanxi); Guanyu Juban 2015 Nian Quanguo Huanbao Shehui Zuzhi Peixunban de Tongzhi (关于举办2015年全国环保社会组织培训班的通知)[Notice on holding the 2015 National Environmental Protection Social Organization Training Course], issued by the General Office of the Ministry of Ecology and Environment on Aug. 25, 2015, No.1358, https://www.mee.gov.cn/gkml/hbb/bgh/201508/t20150828_308996.htm (last visited Oct. 12, 2023) (as a training example organized by the national department).
assistance to other CSOs in need. In return, these resource providers may receive tax credits and other incentives.
CHAPTER 4

Government-Organized Voluntary Environmental Programs

Plans to protect air and water, wilderness and wildlife are in fact plans to protect man.

– Stewart L. Udall

Many research papers primarily focus on negotiated agreements and public voluntary programs when discussing voluntary approaches used by government agencies. Under the Organization for Economic Co-Operation and Development (OECD) taxonomy, negotiated agreements are defined as “commitments for environmental protection developed through agreements bargained between a governmental authority and industry at the national level, or individual firms.” The OECD paper further indicated that the engaging companies could decide the flexible environmental goals established in negotiated agreements. The OECD definition emphasizes this type of voluntary approach’s three critical features. First, the government allows and accepts environmental commitments made by the business sector (an industry group or a company). Second, the government uses its executive power to facilitate and support the

866 Stewart Lee Udall (1920 –2010) was former United States Secretary of the Interior.
867 ORG. ECON. COOP. & DEV., supra note 64, at 10.
868 Id. at 103-106.
development of negotiated agreements. Third, environmental goals established in negotiated agreements are voluntary.

The OECD paper defines public voluntary programs as initiatives involving “commitments devised by the environmental agency and in which individual firms are invited to participate.” Since participation in these government-organized programs is “a choice left to individual companies,” these public voluntary programs can be seen as “optional regulations.” The OECD definition of “public voluntary programs” revealed two key features of this voluntary approach. First, the "commitments" are designed and organized by the government. Second, participants can opt in instead of complying with them as mandatory obligations.

Public voluntary programs and negotiated agreements share the following similarities: (1) governmental agencies develop these approaches to collaborate with the business sector within legal authorizations to fulfill their environmental protection responsibilities; (2) the business sector can participate voluntarily to establish environmental goals; (3) these environmental goals are voluntary commitments made by the business sector and the government expects the business sector to implement and achieve these commitments; and (4) such commitments are confirmed in written format. However, the OECD definitions of public voluntary programs and negotiated agreements

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869 Id. at 9.
870 Id. at 9-10.
excluded non-businesses participants (various levels of governments, CSOs and individuals). 871

This chapter proposes to use “government-organized voluntary environmental programs (VEPs)” as a term to collectively include environmental initiatives and projects that are designed, implemented and monitored by governmental agencies with aims to encourage individuals, organizations (including companies, social groups, public institutions and communities) and various levels of government to reach specific environmental goals or standards beyond existing legal requirements. Similar to VEPs organized by civil society organizations (CSOs) discussed in Part 3.3, governments can develop VEPs in various forms, including voluntary standards, data-compiling and reporting programs, and education and research campaigns. This chapter has no intention to repeat these forms. Instead, it discusses and compares common voluntary approaches used in government-organized VEPs—some voluntary approaches are more attractive to participants than others. The author also examines existing laws that would improve government-organized VEPs’ effectiveness. The U.S. and China experience shows that government-organized VEPs could be transitioned into future legislation.

871 Supra Parts 1.1-1.3 (for the discussions of the insufficiency of the OECD taxonomy and definitions).
4.1 Motivations for Developing and Joining Government-Organized Voluntary Environmental Programs

Departments that may or may not be responsible for environmental protection can establish government-organized VEPs. This section looks into key governmental agencies with the authority to develop and implement VEPs in the U.S. and China. This section also summarizes the motivations for participants to join government-organized VEPs.

4.1.1 Key Governmental Agencies

As stated in Chapter 1, government-organized VEPs have been a crucial tool to manage environmental issues at the federal and state levels in the U.S. since the 1990s. Most federal government-organized VEPs are conceived and designed by the U.S. EPA. That’s because the agency is the administrative department in charge of environmental protection at the federal level.

The U.S. EPA’s overall responsibilities include: (1) ensuring Americans have clean air, land and water; (2) reducing environmental risks with national efforts that are based on the best available scientific information; (3) administering and implementing federal laws that protect human health and the environment fairly, effectively and as Congress intended; (4) establishing environmental policy by integrating environmental

\[\text{See the introduction section of Chapter 1.}\]
\[\text{Id. at 10.}\]
\[\text{Our Mission and What We Do, U.S. ENV’T PROT. AGENCY,}\]
stewardship and other important factors; (5) allowing all parts of society to have access to accurate information sufficient to effectively participate in managing human health and environmental risks; (6) facilitating contaminated lands and toxic sites’ clean-up work; (7) reviewing circulated chemicals for safety.

When accomplishing these responsibilities, the U.S. EPA realized that “[m]any of today's environmental challenges cannot be addressed by regulation alone.”875 Thus, the federal agency adopted voluntary approaches to “enhance and complement regulatory programs as well as to address significant problems that may not be amenable to traditional regulatory approaches.”876 The U.S. EPA admits that “these programs encourage and equip individuals, businesses, schools and other organizations to voluntarily achieve environmental results that might not otherwise be possible and foster a culture of going beyond the minimum requirements of law.”877 The Office of Inspector General within the U.S. EPA is responsible for conducting independent audits, evaluations and investigations of the agency’s programs and management,878 including VEPs organized by the agency.

877 See id.
Other U.S. federal agencies have designed government-organized VEPs independently or in conjunction with the U.S. EPA, including the Department of Energy, Department of the Interior, Department of Agriculture, Department of Transportation, and Occupational Safety and Health Administration. These federal agencies also designate internal units to monitor their respective work. Similarly, governmental agencies at the state and local levels also take the initiative to develop VEPs.

In contrast, China has yet to widely recognize the development of government-organized VEPs. Nevertheless, multiple government-sponsored environmental programs incorporated the element of voluntary willingness to engage participants since the late 1990s, to be discussed in Part 4.2. The Chinese government’s first well-recognized utilization of voluntary approaches was energy-saving voluntary agreements, which appeared as a pilot program in Shandong Province in 2002. In 2003, the Law of the

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879 See Brouhle et al., supra note 46, at 10.
881 Under the guidance and coordination of the National Development and Reform Commission and the active support of the American Energy Foundation, the pilot project for exploring voluntary agreements on energy conservation was officially launched in Shandong Province in November 2002. Between 2002 and 2007, voluntary agreements on energy conservation have been implemented in 51 companies in 10 cities in three batches in the province. The related report showed that pilot work had achieved significant results and helped the government gained experience. See generally Shandongsheng Ziyuan Zongheliyong Xiehui (山东省资源综合利用协会) [SHANDONG PROVINCE RESOURCES COMPREHENSIVE UTILIZATION ASSOCIATION], Shandongsheng Jieneng Xiyei Shidian Tuiguang Xiangmu Jishubaogao (山东省节能协议试点推广项目技术报告) [SHANDONG PROVINCE ENERGY SAVING AGREEMENT PILOT PROMOTION PROJECT TECHNICAL REPORT] (August 2007), available at
People's Republic of China on Promoting Clean Production entered into effect and first recognized voluntary agreements.\textsuperscript{882} The legislators introduced this mechanism based on other countries’ successful experience.\textsuperscript{883} Furthermore, voluntary agreement has sparked the development of voluntary strategic partnership agreements, which have become a common tool used by the Chinese government to work with governments at different levels, CSOs and companies on environmental management.\textsuperscript{884}

Yang et al. think that current environmental management expectations and industrial production levels in China have changed and increased significantly compared to the 1990s; accordingly, mandatory requirements alone cannot effectively support the national strategies of “green development” and “high-quality development” announced in recent years.\textsuperscript{885} Naturally, government turned to VEPs to motivate companies to green


\textsuperscript{883} Zhongguo renmin Daibiaodahui (中华人民共和国全国人民代表大会)[The National People’s Congress of the People’s Republic of China], Zhonghuarenmin Gongheguo Qingjieshengchan Cujinfa Shiyi (中华人民共和国清洁生产促进法 2002 释义) [Statutory Interpretation on Law of the People's Republic of China on Promoting Clean Production 2002], available at http://www.npc.gov.cn/npc/c12434/c1793/c1854/c2209/201905/t20190523_4528.html (It stated the legislative background on Article 29).

\textsuperscript{884} Infra Part 4.2.

\textsuperscript{885} See Yang Yi et al. (杨奕等), Zhonghuarenmin Gongheguo Qingjieshengchan Cujinfa shishizhong Cunzai de Wentijiwanshantujing (《中华人民共和国清洁生产促进法》实施中存在的问题及完善途径) [Problems in the Implementation of China Clean
their production processes. The issuance of Opinions on Strengthening the Building of the Quality Certification System and Promoting Comprehensive Quality Management indicated the central government aims to use VEPs to set a higher standard for companies to meet.

In China, most national government-organized VEPs are initiated and developed by the Ministry of Ecology and Environment or the Ministry of Industry and Information Technology at the national level. These two departments develop national VEPs independently or cooperate with other national departments, such as the Ministry of Water Resources, the National Development and Reform Commission, the Ministry of Science and Technology, and the Ministry of Finance. Similar governmental agencies at China's provincial and local levels can take the initiative or follow national programs to develop their VEPs to engage with companies and other social actors.

Similar to the U.S. EPA, the Ministry of Ecology and Environment in China, formerly called the Ministry of Environmental Protection and known as the State Environmental Protection Administration before 2008, is delegated to administer...
environmental protection with the following responsibilities.\textsuperscript{888} (1) establishing and improving the fundamental system in China for protecting the ecological environment. (2) Coordinating, supervising, and regulating major ecological and environmental issues. (3) Supervising and administering to ensure national emission reduction targets are attained. (4) Proposing the scale and direction of fixed assets investments in the ecological environment sector as well as the allocation of state funding. (5) Supervising efforts to prevent environmental pollution. (6) Guiding and supervising ecological protection and remediation. (7) Supervising the work of nuclear and radiation safety. (8) Taking the leading role in the regulation of ecological environmental access. (9) Taking the leading role in eco-environment monitoring. (10) Taking the leading role in work related to climate change. (11) Initiating the Central Government’s supervision over protecting the ecological environment. (12) Taking the leading role in supervising and legally enforcing laws on the ecological environment. (13) Guiding and coordinating educational campaigns over ecological environmental protection. (14) Carrying out international cooperation and exchanges to protect the ecological environment. (15) Carrying out other tasks delegated by the Central Committee of the Chinese Communist Party and the State Council. Most functions listed above are to uphold environmental standards’ development, implementation and supervision.

Since many national government-organized VEPs are designed to attract companies to join, the Ministry of Industry and Information Technology is another key VEP host agency. It administers China’s various industries and information security, including: \(^{889}\) (1) proposing, developing and implementing industrial planning, policies and standards to promote structural upgrades and development. (2) tracking and monitoring trends in various industries and the communication sector. (3) guiding the development of industries through innovative technologies. (4) providing macro guidance for small and medium-sized enterprises’ development. (5) managing and improving standards and other resources of the communication sector. (6) safeguarding China’s information security. (7) Carrying out international cooperation and exchanges.

China’s National Development and Reform Commission is also actively developing VEPs to manage some environmental issues with focuses on sustainable development.

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\(^{889}\) See Guanyu Yinfa Gongye he Xinxihuabu Zhuyao Zhize Neishejigou he Renyuan Bianzhi Guiding de Tongzhi (关于印发工业和信息化部主要职责内设机构和人员编制规定的通知) [Notification on the Ministry of Industry and Information Technology’s Main Responsibilities Internal Departments and Staffing Regulations], issued by the General Office of the State Council on July 11, 2008, No.72, available at [http://www.gov.cn/fuwu/2014-02/22/content_2618642.htm](http://www.gov.cn/fuwu/2014-02/22/content_2618642.htm); Guanyu Gongye he Xinxihuabu Youguan Zhize he Jigou Tiaozheng de Tongzhi (关于工业和信息化部有关职责和机构调整的通知)[Notification on the Adjustment of the Ministry of Industry and Information Technology’s Responsibilities and Internal Departments], issued by the General Office of the Central Institutional Organization Commission on April 20, 2015, No.17, available at [https://www.miit.gov.cn/gyhxxhb/jgzz/art/2020/art_4a8ec0f5dc754b30be418107d0de6c1b.html](https://www.miit.gov.cn/gyhxxhb/jgzz/art/2020/art_4a8ec0f5dc754b30be418107d0de6c1b.html) (last visited Jan. 9, 2024).
development, energy and resource conservation and comprehensive utilization. The Commission coordinates with the Ministry of Ecology and Environment on ecological and environmental protection and restoration, compensation mechanisms for ecological protection, and clean production. The Department of Resource Conservation and Environmental Protection under the National Development and Reform Commission is “responsible for formulating and implementing strategies, plans and policies in relation to green development, implementing sustainable development strategies, and undertaking ecological development and reform work; formulating and implementing the policy plans for conservation and comprehensive utilization of energy resource and circular economy, proposing the objectives of energy consumption control and implementing the same; coordinating the promotion of green industries and clean production; organizing and coordinating major energy-saving demonstration projects and the widespread application of new products, technologies, and equipment; and undertaking specific work of National Leading Group for Climate Change, Energy Conservation and Emission Reduction in respect of energy conservation.” The National Development and Reform Commission emphasizes strategic development toward a greener society, while the Ministry of Ecology and Environment manages specific environmental issues.

891 Id.
The VEP-developing agency must evaluate the program’s performance.\(^{893}\) It is also common for governments in China to entrust professional organizations to evaluate the program design and participants’ performance through governmental service procurement.\(^{894}\)

The main reasons for the U.S. and Chinese governments to develop VEPs to manage environmental issues differ. The U.S. concentrates on reducing costs and resistance from the business sector, while China emphasizes the effectiveness of motivating companies to aim for stricter standards and requirements. Nevertheless, both


\(^{894}\) See Shengtai Huanjingbu Yingdui Qihoubianhuasi (生态环境部应对气候变化司) [Department of Climate Change of the Ministry of Ecology and Environment], (国家低碳城市试点工作进展评估报告) [Progress Evaluation Report on National Low-Carbon City Pilot work], July 2023, at Appendix, available at https://www.mee.gov.cn/ywgz/ydqhbh/wsqtzkz/202307/W020230713602785966247.pdf (As an example, the Appendix section of the report explains how the evaluation was conducted the National Center for Climate Change Strategy and International Cooperation. The organization invited more than ten experts from different fields to compare low carbon cities’ performance.); Hangzhoushi Fagaiwei Guanyu 2022 Nian Di’erpi Weituo Keti de Caigou Gonggao (杭州市发改委关于 2022 年第二批委托课题的 采购 公 告 )[Hangzhou Municipal Development and Reform Commission’s Procurement Announcement on the Second Batch of Entrusted Projects in 2022], issued by Hangzhou Municipal Development and Reform Commission on September 23, 2020, available at http://drc.hangzhou.gov.cn/art/2022/9/23/art_1663793_58905298.html (the governmental procurement notice is an example).
countries affirmed VEPs’ flexibility for the government to manage new challenges and issues, presenting an alternative to incentivize participants to cooperate compared to rigid legal enforcement.

4.1.2 Values for Joining Government-Organized VEPs

Government-organized VEPs allow different social actors to join, but the primary targeted groups are local governments and companies.

Corporate social responsibility (CSR) is vital in motivating companies to collaborate with the government to materialize their voluntary business commitments.\(^\text{895}\) Besides, companies that participate in government-organized VEPs can obtain free resources, direct economic savings or be eligible for preferential policies on specific topics. In the U.S., many government-organized VEPs provide participants with free tools, materials, webinars, and funds.\(^\text{896}\) These resources are particularly attractive to small and medium-sized organizations and some local governments, since they have limited resources to tackle environmental issues. Similarly, Chinese government-organized VEPs’ participants can receive tax deductions, financial and technical support.\(^\text{897}\)

Second, companies can obtain free governmental recognition and promotion. In the U.S. and China, many VEPs award or announce a list of outstanding participants.

\(^{895}\) *Infra* Parts 4.2 and 4.3 for details and examples.
\(^{896}\) *Supra* Parts 2.1 and 2.2.
\(^{897}\) *Infra* Parts 4.2.
regularly. VEP participants can further promote themselves through governmental recognition.

Third, some companies' willingness to participate in government-organized VEP in the U.S. is often out of a perception that the success of the VEP programs will make the governmental agency less likely to develop and pass legislation to address the same issue that these programs are already tackling.  

Fourth, Chinese companies meeting voluntary standards are beneficial for exporting goods. These voluntary standards are international technical requirements posed by importing countries that are usually stricter. Fulfilling these voluntary standards enables the exporting products to stay competitive in the international markets.  

Joining government-organized VEPs can help exporting companies improve their production processes and meet voluntary standards.

Government can be a VEP organizer and a participant of the VEP organized by the government of the next level at the same time. Like companies, local and provincial governments are motivated to participate in national government-organized VEPs because of free resources and support. In addition, political recognition is another key factor that motivates local governments to join government-organized VEPs in China. Zhou summarized that such political recognition includes opportunities for administrative

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899 See Zhongguo Huanjingy u Fazhan Guoji Heziu Weiyuanhui (中国环境与发展国际合作委员会) (CHINA COUNCIL FOR INTERNATIONAL COOPERATION ON ENVIRONMENT AND DEVELOPMENT), Lvse Gongyinglian de Shijian yu Chuangxin (绿色供应链的实践与创新) (PRACTICE AND INNOVATION OF GREEN SUPPLY CHAIN), 11-12 (2011).
promotion, receiving special financial transfer payments from the central government to local governments, and earning honorary titles for local governments or individual administrators.\textsuperscript{900} The national government would also remove political obstacles to help participating local governments accelerate their progress to explore a new management model for specific issues.\textsuperscript{901} Compared to those cities that are not part of the program, participating local governments would be in an advantageous position for future legislation and enforcement when relevant requirements of those government-organized VEPs become law.

Even though CSOs are not the primary target group in most government-organized VEPs, some initiatives in the U.S. and China allow them to participate. CSOs join government-organized VEPs because of the following reasons:\textsuperscript{902} (1) Increasing public interest in environmental issues; (2) Increasing employee satisfaction; (3) Increasing interactions with other groups; (4) Accessing to resources (e.g., financial, human) provided by government and other participants; (5) Increasing the effectiveness of internal environmental programs; and (6) Promoting organization’s image.

\textsuperscript{900} See generally ZHOU WANG (周望), Lijie Zhongguo Zhili (理解中国治理) [UNDERSTANDING CHINESE GOVERNANCE] Shidian (试点) [the Chapter of Pilots] (2019).
\textsuperscript{901} Id.
\textsuperscript{902} Panagiotis Karamanos, Corporate, Government, and Nonprofit Sector Incentives for Participation or Development of Voluntary Environmental Agreements, Duke University, at 7, available at https://law.duke.edu/news/papers/pkwebpaper.pdf (last visited Jan. 9, 2023)
Noted that the reasons for companies, local governments and CSOs to join CSO- and government-organized VEPs could overlap – additional resources and benefits – but specific incentives to targeted groups vary based on the social actor (VEP organizer).

4.2 Government-Organized Voluntary Environmental Programs and Pilot Programs

Compared to CSO-organized VEPs, government establishing a VEP may go through a pilot program phase. Government usually temporarily operates the pilot program phase, involving a smaller set of governmental officers. China and the U.S. use pilot programs to test new ideas and innovative models for environmental protection on a small scale, evaluating the viability of a project or policy. This section examines pilot programs’ application in China and the U.S. and explores the transition between pilot programs and government-organized VEPs.

China

Pilot programs are deemed “an essential method to achieve incremental reform” in China. Pilot programs usually select a number of applicants as participants or allow

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904 Id.
905 See Ji Xiaoli (季晓莉), Huiyi Gaige Shidian 40 Nian: Shijian Tansuo de Zhongguo Zhihui (回忆改革试点 40 年：实践探索的中国智慧) [Recalling the 40 Years of Reform Pilots: Chinese Wisdom in Practice and Exploration], Guojia Fazhan he Gaige Weiyuanhui (国家发展和改革委员会)[Nat’l Dev. and Reform Comm’n of the People’s Republic of China], press release (Nov.29, 2018), available at
any eligible applicants to join voluntarily without limit. Local governments and companies are the primary targeted groups of pilot programs.

For those pilot programs that engage local governments and only select several to participate, provincial level governments usually recommend and submit qualified cities within their administrative areas to the national pilot program organizer. Some pilot programs may allow cities to submit applications directly to the organizer. The program organizer, usually one or multiple national governmental agencies, selects and designates a list of local administrations as program participants. For example, the Ministry of Ecology and Environment, the organizer of the “Zero-Waste City” pilot program, selected eleven cities from provincial governments’ recommending cities as the first patch participants to promote green lifestyles, minimize the amount of waste produced, strengthen recycling programs and ensure that waste released into the environment is harmless.906 Eventually, the experience gained from these participants will help form a


feasible model for other cities to replicate and use.\textsuperscript{907} Another example is the pilot program for carbon emission environmental impact assessment of construction projects in key industries.\textsuperscript{908} Other than designating seven provinces to carry out pilot projects under the program, the Ministry of Ecology and Environment also encourages other provincial and local governments to submit project plans to become pilot program participants.\textsuperscript{909}

Besides, local governments can apply to participate in pilot programs that allow any government to join, such as the program established under the Plan on Strengthening Environmental Protection in Rural Areas in March 2006. The program aimed to cultivate environmental awareness in the countryside and enable comprehensive, coordinated and sustainable development in rural areas.\textsuperscript{910} Two provinces, two cities, one minority autonomous region and one local county applied to join and became the pilot program participants.\textsuperscript{911}

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\begin{footnotesize}
\textsuperscript{907} See id.
\textsuperscript{909} Id.
\textsuperscript{910} See Shengtai Huanjingbu (生态环境部) [Ministry of Ecology and Environment of the People’s Republic of China], Nongcun Xiaokang Huanbao xingdongjihua (农村小康环保行动计划)[Plan on Strengthening Environmental Protection in Rural Areas], https://www.mee.gov.cn/gkml/sithbgw/qt/200910/t20091023_179978.htm?keywords= (last visited Jan. 9, 2023)
\textsuperscript{911} Id.
\end{footnotesize}
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Noted that participating local governments have the discretion to design rules and mechanisms to achieve any goals set by the national government in the pilot program phase. Participants can further develop pilot projects within their administrative territories.\textsuperscript{912} In some cases, local governments develop pilot projects before the official launch of a national pilot program. For example, in 2016, the State Council indicated that it would select 50 pilot projects as “Demonstration Projects of Near-Zero Carbon Emission Zones” by 2020,\textsuperscript{913} so provinces and cities established pilot programs and hope their pilot programs will be selected. The City of Shenzhen established 28 pilot

\textsuperscript{912} \textit{Id.}

\textsuperscript{913} \textit{See} Shisanwu Kongzhi Wenshiqiti Paifang Gongzuo Fang’an ( “十三五”控制温室气体排放工作方案) [The Work Plan for Greenhouse Gas Emission Control during the 13th Five-Year Plan Period], issued by the State Council on November 4, 2016, No.61, available at \url{http://www.gov.cn/zhengce/content/2016-11/04/content_5128619.htm} (last visited Jan. 9, 2023).
projects in 2022, and the province of Hubei developed 21 pilot projects in 2021. However, the national pilot program has not selected any projects as of October 2023.

Similarly, pilot programs targeted companies have two ways to select participants. Some designate certain industries to join but encourage companies from other industries to participate voluntarily. Others allow any qualified company to apply but require government approval to become participants.

An example of the first type of pilot program is environmental pollution liability insurance. In 2013, the Ministry of Ecology and Environment launched a pilot program that requires companies from the industry of heavy non-ferrous metal mining, smelting, lead battery-making, leather-making, and chemical manufacturing and processing to be


insured for environmental pollution and incidents. The pilot program also encouraged other companies with high environmental risk (such as those that produce, store, use, operate and transport hazardous chemicals) to purchase environmental pollution liability insurance by joining the pilot program. In the pilot program, the China Insurance Regulatory Commission, insurance companies, and the designated participating companies are working together to construct a functional environmental pollution liability insurance system, including how to incentivize companies to be insured effectively and evaluate environmental damages and loss compensation properly.

To join the pilot programs that allow any qualified company to participate, interested entities must submit an application package to the organizing governmental agency for approval. For example, the Ministry of Industry and Information Technology and the National Development and Reform Commission announced a pilot program for building low-carbon industrial parks in 2013. Interested industrial parks needed to apply to become participants. The relevant departments at the provincial level then

917 See Gunyu Kaizhan Huanjingwuran Qiangzhizerenbaoxian shidiangongzuo de Zhidaoyijian (关于开展环境污染强制责任保险试点工作的指导意见) [Guiding Opinions on Carrying out the Pilot Program of Environmental Pollution Compulsory Liability Insurance], issued by the former Ministry of Environmental Protection on January 21, 2013, No.10.
918 Id.
919 Id.
920 See Guanyu Zuzhi Kaizhan Guojia Ditan Gongyeyuanqu Shidian Gongzuo de Tongzhi (关于组织开展国家低碳工业园区试点工作的通知) [Notice on developing the pilot program of national low-carbon industrial parks], issued by Ministry of Industry and Information Technology and Nat’l Dev. and Reform Comm’n on September 29, 2013, No.408.
921 Id.
reviewed all applications and selected 2-3 candidates for the program organizers’ review and decisions on the final participants.\textsuperscript{922}

Some Chinese pilot programs allow companies and local governments to participate simultaneously, such as the Circular Economy pilot program. In 2005, the national government designated several circular economy pilot projects to be conducted in key industries, industrial zones, and urban and rural areas.\textsuperscript{923} In the same year, the national government required governments at the provincial and local levels to conduct pilot projects on the Circular Economy using the national program as guidance.\textsuperscript{924} The

\textsuperscript{922} \textit{Id.}

\textsuperscript{923} \textit{See} Guanyu Zuzhikaizhan Xunhuanjingji Shidian Diyiipi Gongzu de Tongzhi (关于组织开展循环经济试点（第一批）工作的通知) \{Notice on Organizing and Launching Circular Economy Pilot Projects (First Batch)\}, issued by multiple national departments on October 27, 2005, No.2199. Noted that the term “circular economy” is a generic term for the reducing, reusing and recycling activities conducted in the process of production, circulation and consumption. Specifically, the term “reducing” refers to reducing the consumption of resources and the production of wastes in the process of production, circulation and consumption. The term “reusing” refers to using wastes as products directly, using wastes after repair, renewal or reproduction or using part or all wastes as components of other products. And the term “recycling” refers to using wastes as raw materials directly or after regeneration. See \textit{Zhonghuarenmin Gongheguo Xunhuanjingji Cujin Fa (2018 Nian Xiuding (中华人民共和国循环经济促进法 2018 年修正)) \{The Circular Economy Promotion Law of the People's Republic of China (2018 Amended)\}, adopted at the 4th session of the Standing Comm. of the 11th National People's Cong. of the People's Republic of China on August 29, 2008, effective on Jan.1, 2009 and amended at the Sixth Session of the Standing Comm. of the 13th National People's Cong. of the People's Republic of China on October 26, 2018.

\textsuperscript{924} \textit{See} Guanyu Yinfu Guojia Huanbao Zongju Guanyu Tuijin Xunhuanjingjifazhan de Zhidaoyijian (关于印发《国家环保总局关于推进循环经济发展的指导意见》的通知) \{Notice on Printing and Distributing the "Guiding Opinions of the State Environmental Protection Administration on Promoting the Development of Circular Economy"\}, issued by the former State Environmental Protection Administration on October 10, 2005, No.114.
Circular Economy pilot programs established at the national, provincial and local levels are open to all participants to join voluntarily, except for the first batch of national pilot projects selected by the program organizer. The national government required local governments to conduct "checks and acceptance" on those pilot projects.\footnote{See Guanyu Zuzhi Kaizhan Guojia Xunhuanjingji Shifanshidianwei Yanshougongzuo de Tonghzi (关于组织开展国家循环经济示范试点单位验收工作的通知)[Notice on Organizing the Acceptance Work of National Circular Economy Demonstration Pilot Units], issued by multiple national departments on July 30, 2013, No.1471.} Local governments examined whether those pilot projects achieved the goals they estimated in their applications.\footnote{Id.} Pilot projects that failed to pass the evaluation could not continuously be in the program or enjoy favorable policy benefits and grants.\footnote{Id.}

Most pilot programs eventually transition into laws with mandatory requirements, and the clean production pilot program is an example that shows this evolving process. In 1993, the national government recognized the importance of “clean production” in combating environmental pollution.\footnote{See Development and Reform Commission of Hunan Province (湖南省发展和改革委员会), Qingjieshengchan Zhishi (清洁生产知识)[Knowledge of Clean Production], \url{http://fgw.hunan.gov.cn/fgw/ztzl/yfxzzl/gzdt_2/201702/t20170206_3974938.html} (last visited Jan. 9, 2023).} In 1996, the State Council of China required “[a]ll large-, medium- or small-sized construction projects, expanded construction projects or reconstruction projects, and all technological renovation engineering to [raise their] technological level, adopt clean productive technology with low energy consumption, [...]
materials consumption and [...] pollutants discharge quantity”. 929 In 1997, the State Environmental Protection Administration (now known as “the Ministry of Ecology and Environment”) required local departments of environmental protection to incorporate the “clean production” concept into their existing policies and conduct pilot projects among companies to promote the concept. 930 In this context, the State Economic and Trade Commission (now known as “the National Development and Reform Commission”) launched a pilot program to implement clean production in 1999, and selected some cities (such as Beijing and Shanghai) and industries (including petrochemical, metallurgical, ship-making and seven other industries) as participants to the program. 931

In 2002, the Law of Promoting Clean Production was issued. 932 This law provided companies options to use clean and resource-saving technology to further reduce their emissions by signing voluntary agreements with the government to set reduction goals or applying for certification to certification bodies authorized by the national certification and accreditation supervision and administration department voluntarily to certify their


930 See Guojiahuanjingbaohuju Guanyu Tuixing Qingjieshengchan de Ruoganyijian (国家环境保护局关于推行清洁生产 的若干意见) [Opinions on Promoting Clean Production], issued by the former State Environmental Protection Administration on April 14, 1997.


efforts on clean production. Since the pilot program was ongoing at the same time, the Law of Promoting Clean Production aimed to continuously promote clean production by reducing mandatory obligations and adopting voluntary approaches.

In 2003, with the clean production pilot program steadily progressing, the State Council expanded the scope of the clean production pilot program by requiring local governments to develop policies that could incentivize companies to practice clean production and select companies that achieved progress as role models to promote their experience, particularly those in key industries, regions, cities, and enterprises. Common incentives include tax deductions, grants for clean technology development, and financial support for clean production for small and medium-sized companies.

With more companies practicing clean production, properly reviewing companies’ clean production performance was needed. In this context, the Temporary Measures for Clean Production Review was issued in 2004, establishing the meaning of clean production review and the following principles for conducting such reviews: (1)

933 Id. Articles 29, 30 and 33.
934 See Li Meng (李蒙), Guanyu Zhonghuarenmingongheguo Qingjieshengchan Cujinfa Cao'an de Shuoming (关于《中华人民共和国清洁生产促进法（草案）》的说明) [Explanation on the Law of the People's Republic of China on Promoting Clean Production (Draft)], addressed at the 27th Meeting of the 9th Nat’l People’s Cong. (NPC) Standing Comm., April 26, 2002.
935 See Guowuyuan Bangongting Zhuanfa Fazhangaigewei deng Bumen Guanyu Jiakuai Tuixing Qingjieshengchan Yijian de Tongzhi (国务院办公厅转发发展改革委等部门关于加快推行清洁生产意见的通知) [The General Office of the State Council Forwards the Notice of the Development and Reform Commission and Other Departments on Accelerating the Implementation of Cleaner Production Opinions], issued by the General Office of the State Council on December 17, 2003, No.100.
936 Id.
companies whose production process is pollutant-intensive or whose total emission of pollutants surpassed the limits shall be required to conduct the review, and the rest of the companies are encouraged to do so voluntarily,\textsuperscript{937} and (2) companies must conduct such a review on their own or by an authorized third party.\textsuperscript{938} To resonate with the first principle, the State Environmental Protection Administration issued a series of procedures to regulate how pollutant-intensive enterprises conduct a compliance review in late 2005.\textsuperscript{939} The State Environmental Protection Administration partnered with Dow Chemical Company between 2005 and 2007 to provide training and funding for pollution-intensive industries to practice clean production.\textsuperscript{940} With these layers in place

\textsuperscript{937} See Qingjis\ehengchan Shenhe Zanxing Banfa (清洁生产审核暂行办法) [Temporary Measures for Clean Production Review], issued by the National Development and Reform Commission and the Ministry of Environmental Protection on August 16, 2004, No.16. Article 2 (1) and (2). Specifically, Article 2 mentioned that the term “cleaner production review” refers to the process of following certain procedures to investigate into and diagnose the production and service process so as to identify causes of high energy consumption, high material consumption, and heavy pollution and to propose solutions for reducing energy consumption, material consumption, and wastes as well as reducing the use and production of toxic or hazardous materials and recycling of wastes, and therefore to select and implement the technically, economically, and environmentally feasible cleaner production scheme.

\textsuperscript{938} Id. Articles 5, 7,8, and 14.

\textsuperscript{939} See Zhongdian Qiye Qingjies\ehengchan Shenhech\ehngxu de Guiding (重点企业清洁生产审核程序的规定) [Regulations on Cleaner Production Review Procedures of Key Enterprises], issued by the former State Environmental Protection Administration on December 13, 2005, No.151.

\textsuperscript{940} Under the partnership, Dow Chemical Company provided training and knowledge support on clean production processes and relevant technology. See State Council (国务院), Zhu Guangyao Huijian Meiguo Taoshi Huaxue Gongsi Shouxi Zhixingguan (祝光耀会见美国陶氏化学公司首席执行官)[Zhu Guangyao Met with CEO of Dow Chemical Company], Press Release (Oct. 17, 2005), \url{http://www.gov.cn/ztzl/2005-10/17/content_79253.htm} (last visited Jan. 9, 2023).
over the years, the compliance review requirement was officially added to the latest revised version of the Law on Promoting Clean Production issued in 2012.941

The development of clean production in China demonstrated the importance of pilot programs. The Chinese government started with a few national pilot projects to explore the concept and showcase how to incorporate clean production into a company, an industry, a city and a region. Later, governments at provincial and local levels developed their pilot projects and attracted companies to participate with various incentives. These pilot projects provided experiences for the national government to effectively promote clean production throughout the country and improve clean production practices by incorporating review and verification processes. Eventually, the experience contributed to developing related laws to standardize the procedures.

The U.S.

Pilot programs developed by governments at all levels in the U.S. primarily target local governments and companies as well.

At the federal level, some pilot programs select a limited number of applicants as participants, such as the Community-Port Collaboration Pilot Projects.942 The U.S. EPA

942 This program aimed to “build stronger partnerships and equip port operators and community stakeholders with information, skills and tools to effectively develop and implement collaborative actions to improve air quality at ports.” See Community-Port
selected four applicants from over twenty near-port communities and port applications. Participants’ lessons learned and resources developed in the pilot projects were shared and applied to other ports nationwide to support community-port collaboration. The Superfund Redevelopment Pilot Program is another example. As the program organizer, the U.S. EPA provided funding and technical support to the selected local governments to redevelop brownfields between 1999 and 2002. This approach was codified in 2002 as Section 128 of the Comprehensive Environmental Response, Compensation, and Liability Act. The pilot program became an official partnership program that continuously supports local governments, businesses and organizations to remediate contaminated hazardous waste sites and further community goals for reuse.

Some federal pilot programs allow any local government applicant to join without screening. For example, the Pay-As-You-Throw program was a model developed by the U.S. EPA to reduce municipal solid waste by charging its residents to collect regular waste.

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943 Id.

944 Id.


State and local governments can set up pilot programs by replicating the path set by federal pilot programs and extending them within their jurisdictions. For example, in response to the federal Superfund program, the State of New York established its Voluntary Cleanup Program in 1994 to encourage the private sector to redevelop and reuse contaminated properties.\footnote{The New York State Department of Environmental Conservation established an administrative voluntary cleanup program under the Organization and Delegation Memorandum #94-32, Policy: Voluntary Cleanup Program in 1994. See Larry Schnapf, NYSDEC To Finally End Voluntary Cleanup Program, SCHNAPF LLC, Blog (May 30, 2017), https://www.environmental-law.net/2017/05/30/nysdec-finally-end-voluntary-cleanup-program/; State Response Programs, U.S. ENV’T PROT. AGENCY, https://www.epa.gov/enforcement/state-response-programs (last visited Sep. 21, 2023).} In 2003, the State of New York signed legislation to create a new Brownfield Cleanup Program, modeled after the existing Voluntary Cleanup
Program. Noted that companies apply to join the legislated Brownfield Cleanup Program voluntarily.

Meanwhile, states and local governments can independently design pilot programs to meet their needs. For example, the New York State Department of Environmental Conservation launched a three-year pilot program in 2017 to help municipalities manage their wastewater systems more efficiently and protect these municipal assets. The Municipal Sewage System Asset Management Pilot Program selected ten municipalities to help the state government develop and practice asset management programs. By the end of the project, the participants shared and provided feedback on their experiences. The New York State Department of Environmental Conservation used the information gathered during the pilot program to improve its Municipal Sewage System Asset Management Guide.

Another example is that the Mayor’s Office of Climate Resiliency developed New York City Climate Resiliency Design Guidelines (the Climate Guidelines) to help new

956 Id. at 5.
957 Id.
city infrastructures and public buildings withstand worsening extreme weather decades into the future.\textsuperscript{958} In November 2021, New York City established a pilot program that selected twenty-three city capital agencies to design and construct dozens of new projects using the Climate Guidelines.\textsuperscript{959} The city government stated that the pilot program is “the first step toward full implementation of Local Law 41,” passed in March 2021 to regulate how city capital projects are to be designed and sited in the context of climate change.\textsuperscript{960}

Pilot programs designed for the business sector are equally active at the federal, state and local levels. Some are only eligible for specific industries, while others are for any business to join. For example, the U.S. EPA established the Pesticide Label Statement Pilot Program “to better inform consumers of certain aspects of pesticide products” by requiring participating companies to disclose their sustainability information properly on their product labels.\textsuperscript{961} This pilot program targeted companies that produce certain pesticide products only.

Although CSOs are not primary targets for pilot programs, it is worth mentioning that some pilot programs include them as participants, such as the U.S. EPA Southeast

\textsuperscript{959} Id.
\textsuperscript{960} Id.
New England Program’s Pilot Watershed Initiative.\textsuperscript{962} The role of non-profit organization is to partner with the U.S. EPA and other stakeholders to address common environmental challenges in the coastal watersheds of southeast New England, including implementing action plans, conducting outreach and education activities, providing technical assistance and training, and monitoring and evaluating the performance of watershed projects.\textsuperscript{963} Noted that the U.S. EPA provides funds to support selected public institutions and nonprofit organizations’ work in this pilot program.\textsuperscript{964}

\textbf{Comparison}

China and the U.S. tend to use pilot programs to explore new models for environmental protection. When comparing these two countries’ pilot programs, it is crucial to consider the following aspects: (1) Which level of government can develop pilot programs? (2) When to develop and implement a pilot program? (3) What topics do pilot programs focus on? (4) What is the next step after the pilot program period?

\textsuperscript{962} This Pilot program allows state, local, and tribal governments, institutions of higher education, nonprofit institutions and organizations, and interstate agencies to participate. Private businesses, federal agencies, and individuals are not eligible to apply; however, they may work in partnership with eligible applicants on these projects. See U.S. Env’t Protect. Agency, 2021 Request for Applications for the Southeast New England Program Pilot Watersheds Initiative, at 12, https://www.grants.gov/search-results-detail/332504


\textsuperscript{964} Id.
The main difference between the two countries’ pilot program practices is whether the provincial/state and local governments need to follow pilot programs developed by the national/federal government. The national government generally initiates Chinese pilot programs on specific subjects, and the provincial and local levels respond to the requirements or guidelines developed by the national government to establish pilot projects within their administrative territories. In the U.S., state and local governments may follow national pilot models. The primary reason for the difference is the relationship between governments at the national and local levels.

According to the Legislation Law of China, the National People's Congress and the National People's Congress Standing Committee exercise state legislative power in accordance with the provisions of the Constitution.965 “In light of the specific situations and actual needs of the administrative region, the People’s Congress of a province, autonomous region, municipality directly under the central government and the Standing Committee thereof may enact local decrees provided that they shall not contravene any provision of the Constitution, [national laws] and administrative regulations.”966 Chinese Constitution states that the central government (i.e., the State Council) is the executive


966 Id. Article 80.
organ of the highest state organ of power and the highest state administrative organ.967

The State Council’s responsibilities include “exercising unified leadership over the work of local state administrative organs at all levels nationwide,” “directing and managing...ecological conservation, changing or revoking inappropriate orders, directives and regulations issued by ministries or commissions, changing or revoking inappropriate decisions and orders issued by local state administrative organs at all levels.”968

It is clear that the legislative and executive power hierarchy in China is top-down, led by the national government. Under such a structure, national agencies naturally are the designers and the organizers of new policies or management models, and provincial and local governments follow and respond to national programs. Although pilot programs are voluntary for targeted groups to join, they are highly likely to be transitioned into mandatory laws in China.

The U.S. Constitution governs the authority of states and the federal government and their relationship. The federal government is delegated specific enumerated powers,
and all other powers not otherwise prohibited by the Constitution are reserved to the states.\footnote{See U.S. Const., Amendment X (1791).} These “enumerated powers” set forth in the Constitution include borrowing power, levying taxes, maintaining a military, declaring war, and making all laws necessary for executing these powers.\footnote{See U.S. Const., Art.1 §8.} Each state has its written Constitution, which usually states how to divide the power between the state and local government.\footnote{State and Local Government, U.S. WHITE HOUSE, https://www.whitehouse.gov/about-the-white-house/our-government/state-local-government/ (last visited Jan. 9, 2023).} In other words, governments at the federal and state levels can have similar paralleled powers to manage issues. By comparison, state and local governments in the U.S. have broader power than provincial and local governments in China. Therefore, different government levels in the U.S. can establish pilot programs independently and choose to follow federal pilot programs.

With the paralleled powers structured at the federal and state levels, federal pilot programs may not result in national legislation. Because some federal pilot programs are about allocating funds to participants, these programs may only operate for short terms once the funds are used up. For example, the U.S. EPA established the Climate Showcase Communities Grant Program under Public Law 111-8’s authorization to grant communities ten million US dollars to develop plans and demonstrate and implement projects that reduce greenhouse gas (GHG) emissions.\footnote{Omnibus Appropriations Act of 2009, Public Law 111-8, 111th Cong., at 123, STAT. 727 (2009).} To bring out the maximum

\footnotetext{969}{See U.S. Const., Amendment X (1791).}  
\footnotetext{970}{See U.S. Const., Art.1 §8.}  
\footnotetext{972}{Omnibus Appropriations Act of 2009, Public Law 111-8, 111th Cong., at 123, STAT. 727 (2009).}
benefits of the project grants, the U.S. EPA set up criteria to award selected applicants.\footnote{973} The Climate Showcase Communities Grant Program eventually provided a pool of case studies for all levels of government to replicate the success.\footnote{974} The temporary federal pilot program can be mandatory if a state adopts it.

In contrast, pilot programs established at the state and local levels are likely to become permanent. For example, the New Jersey Board of Public Utilities was authorized to establish the Community Solar Energy Pilot Program by law to accelerate the state’s renewable energy development and achieve its solar goal.\footnote{975} The same law also required the Board of Public Utilities to convert the Community Solar Energy Pilot Program to a permanent program within a specific timeframe.\footnote{976}

\footnote{973} Grant activities should aim to: 1) reduce emissions of greenhouse gases; 2) build capacity within local and tribal agencies to address greenhouse gas emissions within their communities; 3) create meaningful and sustainable programs and management systems to achieve ongoing reductions; 4) link climate change initiatives with broader environmental, economic, and social concerns; 5) build and leverage partnerships across multiple stakeholder groups that facilitate front-end participation by communities impacted by climate change; and 6) create models of success that can be replicated across the nation. \textit{See Climate Showcase Communities Grant Program, FEDERAL GRANTS WIRE}, originally published via the U.S. EPA website and deleted 01/15/2013 (Archived.), \url{https://www.federalgrantswire.com/climate-showcase-communities-grant-program.html} (last visited Jan.3, 2024).


\footnote{975} \textit{See A3723} (Establishes and modifies clean energy and energy efficiency programs; modifies State’s solar renewable energy portfolio standards), N.J., introduced March 22, 2018 and approved on May 23, 2018, at 25, \textit{available at} \url{https://pub.njleg.state.nj.us/Bills/2018/A4000/3723_I1.PDF}

\footnote{976} \textit{Id.} at 26.
Regardless of the administrative power arrangement, governments in China and the U.S. utilize pilot programs with great flexibility. Some pilot programs are designed and implemented to support new mandates’ implementation to explore ways to translate the laws into concrete practices, such as the New York City Climate Resiliency Design Guidelines pilot program and the second phase of the clean production pilot program in China. Other pilot programs are set up to help governments “try out different public education and outreach strategies,” 977 such as the U.S. Pay-As-You-Throw federal program and China’s Circular Economy pilot programs. Existing practices show that pilot programs can tackle various environmental issues, ranging from pollution management, climate change to sustainability.

4.3 Types of Voluntary Approaches Used in Government-Organized Voluntary Environmental Programs

Interested targeted groups typically participate in CSO- and government-organized VEPs (including pilot programs) by submitting application-based statements or signing voluntary agreements (which may be negotiated or non-negotiable) with the VEP organizers.

Although governmental guidance is not a typical procedural format used to confirm targeted groups’ joining a VEP, it is a crucial tool to engage various social actors in the U.S. and China and sometimes triggers government-organized VEPs’

establishment. This section deems governmental guidance as a type of voluntary approach.

4.3.1 Negotiated Agreements

This author defines “negotiated agreements” as a form of environmental protection commitment negotiated and developed through an agreement between a government authority and an industry group, individual company, civil society organization, or government agency at the same or higher level. In contrast to the OECD definition, this proposed one emphasizes the negotiable aspect of such voluntary agreements and encompasses agreements between government, CSOs, and governmental authorities at various levels.

China

As indicated in Part 4.1.1, voluntary agreements were introduced to China because of other countries’ successful applications and recognized in the Law of the People's Republic of China on Promoting Clean Production (2002). It says that: “The enterprises may, based on coming up to the national and local standards for emitting pollutants, enter into agreements with the competent administrative departments of economy and trade and the administrative departments of environmental protection for further saving resources and reducing the emission of pollutants. The administrative

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departments of economy and trade and the administrative departments of environmental protection concerned shall publish the names of the enterprises concerned and the achievements of saving resources and preventing and controlling pollution in the major mass media of the local places.” 980 The provision does not indicate whether such a voluntary agreement is negotiable.981

In 2007, a research team responsible for developing the Circular Economy legislative study suggested utilizing voluntary agreements for energy saving and pollution mitigation.982 The same legislative study further indicated that voluntary agreements require companies to take the initiative to improve their environmental performance consistently.983 However, companies in China, particularly small and medium-sized companies, still need energy conservation education and technology support on pollutant management; plus, it would require government to invest extra resources to implement

980 Id.
981 The Zhejiang Province issued a voluntary agreement template for emission reduction in 2023. This example may indicate such voluntary agreements can be non-neogitable. See Guanyu Yinfu Huanjing Wuran Fangzhi Xieyi (Wenben Shili) (关于印发《环境污染防治协议（文本示例）》的通知) [Notice on Issuing the Environmental Pollution Prevention and Control Agreement (Example Text)], issued by Department of Ecology and Environment of Zhejiang Province on February 20, 2023, No.73.
983 Id. at 211-216.
and monitor those voluntary agreements with a vast number of small and medium-sized businesses.\textsuperscript{984} Therefore, it is rare to see companies use such a mechanism to improve their manufacturing processes in practice.

As an alternative to implementing clean production, many companies follow Article 30 of the Law on Promoting Clean Production to submit applications to the institutions authorized by the authentication ratification and supervision authorities of the state for verifying and certifying their clean production performance under environmental management system standards.\textsuperscript{985} It indicates that, under the same conditions, companies tend to choose application-based voluntary verification over voluntary agreements to advance their environmental goals. The main reason is that negotiated agreements typically demand more time and effort from companies during negotiations with governmental agencies, in contrast to a streamlined verification process that allows companies to better estimate required inputs.\textsuperscript{986}

With the Chinese government deepening the understanding of voluntary agreements, another type of negotiated voluntary agreement, referred to as “agreements of strategic environmental partnerships (‘Zhànluò hézuò xièyi’ in Chinese),” has been widely used in China in recent years. Government and partnered organizations usually disclose the purpose and content of strategic environmental partnerships through press

\footnotesize{\textsuperscript{984} Id.}  
\footnotesize{\textsuperscript{985} See Law of the People’s Republic of China on Promoting Clean Production (2012 Revised, \textit{supra} note 962, Article 30.}  
\footnotesize{\textsuperscript{986} \textsc{The Environment Protection and Resources Conservation Committee of the National People’s Congress, see \textit{supra} note 1004, at 214.}}
Releases instead of publishing official agreements. Environmental strategic partnership agreements do not include dispute solutions or liabilities for breaching the agreement due to no legally binding force. However, it is becoming an important tool used by governments at different levels to collaborate with other social actors to strengthen or advance their behaviors. The content of these agreements resonates with existing laws and national environmental policies. Regarding format, collaborating parties engage in in-depth negotiations and discussions, which aligns with the concept of a negotiated agreement.

Strategic environmental partnerships can be developed between different governmental authorities. If two government authorities are at the same administrative level (mostly local environmental protection departments) and face similar environmental challenges, the authorities can improve capacity building together via such partnerships. If two jurisdictions are adjacent, it is common to see them develop a cooperation mechanism for joint prevention and management of pollution control and GHG reduction. If one authority is the superior government to the other, such as a city government developing a partnership with the provincial government to which it belongs, such partnerships usually highlight (1) the potential of the city in managing some environmental issues or achieving specific environmental goals; and (2) how the provincial government supports the city government on these referenced subjects towards the development of a green economy.
Besides, governmental agencies establish strategic environmental partnerships with research and educational institutions and environmental protection groups. The former works with the government to address regional environmental issues, build research platforms, retain talents for the area, and support industrial upgrading and reconstruction. The latter works with the government to accelerate local environmental service industry's development, build facilities to enhance environmental protection, and provide guidance on pollution management and ecological restoration.

Frequently, governments form partnerships with companies to address specific environmental issues that directly relate to these companies’ activities. Typically, the company’s size and characteristics align with the governmental level that is appropriate. For instance, if a company is state-owned by the national government, the partnering government authority would correspondingly be a national department.

The U.S.

Like China, the U.S. federal government and scholars showed interest in voluntary approaches in the 1990s and embraced negotiated agreements like the

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987 Environmental protection groups (refers as “Huánbào jítuán” in Chinese) is a new format of state-owned company in China. These groups are usually established at the provincial level funded by the national government to provide environmental consulting services to non-national governments. See 2022 Nian, 17 Jia Shengji Huanbao Jituan de Bing yu Huo (2022年，17家省级环保集团的冰与火) [In 2022, the ice and fire of 17 provincial environmental protection groups], Qingshan Yanjiuyuan (青山研究院) (Dec.22, 2022), available at https://ecep.ofweek.com/2022-12/ART-93012-8420-30582769.html (the article introduces this type of organization and the current status).
paralleled European generation. Compared to European voluntary agreements characterized as “macro-contracts,” Kerret and Tal pointed out that American negotiated agreements incorporated in environmental programs have emerged primarily based on a plant-specific “micro-contract” strategy instead of sector-wide environmental standards.

One prominent example of negotiated agreements’ application in the U.S. is in the Project XL program. Project XL, meaning "eXcellence and Leadership," was established by the U.S. EPA in 1995 and stopped accepting new projects in 2002. The pilot program allowed state and local governments, businesses and federal facilities to develop innovative strategies with the U.S. EPA to achieve environmental and public health protection. Under the program model, if an eligible applicant’s proposal gets selected, the applicant, regulators, and direct participating stakeholders negotiate a non-legally binding Final Project Agreement that defines the innovation to be tested, the required level of environmental performance, the regulatory flexibility that will be granted, what conditions must be met, and how the results will be monitored. According to the U.S.

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988 See supra the introduction section of Chapter 1.
EPA’s web archive data, fifty projects reached a formal agreement with the federal agency under the Project XL program.\footnote{The number is the sum of “Active Projects,” “Completed and Closed Project” and “Terminated Projects.” \textit{Explore an XL Project}, U.S. ENV’T PROT. AGENCY WEB ARCHIVE, https://archive.epa.gov/projectxl/web/html/explorxl.html (last visited Jan. 9, 2023).}

The U.S. EPA identified a list of stakeholders of the Project XL program, including “communities near the project, federal, state, tribal or local governments, businesses, environmental and other public interest groups or other similar entities.”\footnote{See U.S. ENV’T PROT. AGENCY, PROJECT XL STAKEHOLDER INVOLVEMENT A GUIDE FOR PROJECT SPONSORS AND STAKEHOLDERS 6 (1999), available at https://nepis.epa.gov/Exe/ZyNET.exe/600000QF.TXT?ZyActionD=ZyDocument&Client=EPA&Index=1995+Thru+1999&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5Czyfiles%5Cindex%20Data%5C95thru99%5Ctxt%5C00000019%5C600000QF.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C- &MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=hpfr&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&Bac kDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL (last visited Jan. 9, 2023).} Furthermore, the agency developed three levels of participants based on these stakeholder groups and required each level to be given a chance to participate: \footnote{\textit{Id.}} (1) Direct participants. They are individuals or groups who choose to work intensively with project applicants. (2) Commenters. The U.S. EPA required project sponsors to provide opportunities for commenters to be heard while developing an XL project. These commenters can affect the design and implementation through submitting their comments; (3) Members of the General Public. The agency required project sponsors to
provide members of the public with easy access to the proposal development process and information about the project. These requirements resulted in participating in the Project XL program was costly for businesses. In other words, the Project XL program favored large firms equipped with financial and human resources and economies of scale and scope that can lower costs and increase participation benefits compared to smaller firms.

Brouhle et al. summarized the following reasons why negotiated agreements have not been used frequently in the U.S. compared to other government-organized voluntary approaches: (1) government-business relationships in the U.S. tend to be more adversarial than in Europe and therefore cannot create an environment conducive to environmental administrative agreements; (2) questionable legal authority of regulatory agencies to exempt firms from existing regulations has prevented the adoption of negotiated agreements; (3) the potentially high cost of negotiations has prevented the wide-scale adoption of negotiated agreements, as indicated by the Project XL program.

Meanwhile, memorandums of understanding (MOUs), as a type of negotiated agreement, have been used by the U.S. EPA since the 1990s. Although they are not in

996 Blackman & Mazurek, see supra note 992, at 16.
997 Id.
998 Brouhle et al., see supra note 46, at 14-15.
999 Based on the available MOU records from the U.S. EPA website. Noted that the U.S. EPA website does not have a category for the MOU records, so the author used the search function to locate available MOUs throughout the U.S. EPA website. See Search, U.S. ENV’T PROT. AGENCY, https://search.epa.gov/epasearch/?querytext=memorandum+of+understanding&areaname=&areacontacts=&areasearchurl=&typeofsearch=epa&result_template=#/
the spotlight like the negotiated agreements associated with government-organized VEPs discussed above, MOUs are commonly made between governmental authorities and organizations because they are flexible and non-legally binding. For example, the U.S. EPA has established various MOUs with different federal agencies (such as the Occupational Safety and Health Administration, Department of Defense, U.S. Army Corps of Engineers) and state departments to streamline coordination between these agencies.\textsuperscript{1000} The U.S. EPA has also established MOUs with educational institutions to leverage both parties’ resources to tackle specific environmental issues.\textsuperscript{1001} Lastly, the agency has engaged national associations of different industries and individual companies to advance their participation on environmental protection through MOUs.\textsuperscript{1002} Topics in these MOUs vary, and the parties can customize the content as needed.

Similar to China, governments at state and local levels in the U.S. also use MOUs to collaborate. The Western Climate Initiatives and the Regional Greenhouse Gas Initiative (known as the RGGI) are well-recognized examples.\textsuperscript{1003} Both initiatives were

\textsuperscript{1000} Id.
\textsuperscript{1001} Id.
\textsuperscript{1002} Id.
established based on collaborative and non-legally binding MOUs signed by participating state governments to form an alliance to reduce GHG emissions within their administrative territories. The idea and design of a regional carbon trading system discussed under the platform of the Western Climate Initiative helped inform the development of economy-wide emissions trading programs in California.1004 California’s cap-and-trade program has become deemed “a key element” of the state’s strategy to reduce GHG emissions.1005

Likewise, to join the RGGI, each participating state has to establish its own statutory or regulatory authority to adopt a set of regulations outlined in the MOU as the basis for implementing the statewide CO2 Budget Trading Programs.1006 The set of regulations would include sources of the CO2 budget, CO2 allowance allocation, monitoring and reporting, requirements of using offsets, and development of offset projects.1007 These participating states compose a regional cap and trade market for

trading allowances.\textsuperscript{1008} The examples of RGGI and the Western Climate Initiatives show that voluntary initiatives established by negotiated agreements have led to mandatory regulations in relevant states.

**Comparison**

The initial form of negotiated agreements adopted by the U.S. and China had limited application in government-organized VEPs. Both countries have adopted flexible ways to develop negotiated agreements, such as MOUs and strategic partnership agreements.

The goal of applying negotiated agreements may differ in China and the U.S.. In China, strategic partnerships do not create new goals beyond existing legal or policy requirements; instead, they primarily resonate with the relevant requirements of laws and national policies by enhancing parties' cooperation. Therefore, these partnerships are formed to implement existing laws and policies instead of developing potential future legislation. In the U.S., some MOUs share the similar feature of streamlining implementation like China, while some create new environmental goals or implementation plans for the collaborating partners, which could become future legislation.

Two conditions must be satisfied to ensure the practical application of negotiated agreements. First, both parties are willing to tackle particular environmental issue(s) and agree to advance the willingness into concrete implementation. Secondly, such

\textsuperscript{1008} Reg’l Greenhouse Gas Initiative, see supra note 1006 (State Statutes & Regulations).
implementation is not explicitly prohibited by laws or regulations for the collaborating parties to proceed.

4.3.2 Non-Negotiable Agreements

Non-negotiable agreements are environmental protection commitments made by participants through pre-developed agreements organized by the government authority that hosts a VEP. The government agency set up participants’ generic rights and obligations without a negotiation process.\textsuperscript{1009} A non-negotiable agreement’s terms and conditions reflect the government-organized VEP’s requirements, which enable targeted groups to understand their rights and obligations upon joining a program.

China

Non-negotiable agreements generally do not require a penalty or compensation if a party does not comply. Participants can leave the program without restriction. However, some non-negotiable agreements allow parties to submit unsolved disputes to the court where the program organizer is located.

One example is non-negotiable agreements used in trees and green space adoption programs. The City of Nanjing in Jiangsu Province and the Capital City of Beijing simultaneously developed VEPs in 1999 to encourage organizations and individuals to

\textsuperscript{1009} According to the U.S. Environmental Protection Agency, in certain cases, these standard agreements may be modified to address special legal requirements of participants or affiliates. However, such changes are not made based on negotiations. \textit{See Responsible Appliance Disposal (RAD)-Become a Partner}, U.S. ENV’T PROT. AGENCY, \url{https://www.epa.gov/rad/become-partner} (last visited Nov. 3, 2023).
adopt trees and urban green spaces. Since launching, the tree and green space adoption program has helped organizations and individuals understand the importance of urban green spaces and eventually translate individual awareness into action to protect the urban green environment. The program model was soon scaled up to the national level. In 2001, the State Council informed governments at different levels to develop tree and green space adoption programs. Later, the Cities of Nanjing and Beijing issued

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1010 See Hou Wenxue & Li Jun (侯文学, 栗军), Renyang Lvdi Hao Shishang (认养绿地好时尚) [Adopting green space is Trendy], Renmin Ribao (人民日报)[PEOPLE’S DAILY] (Apr. 17, 1999), at 1, available at https://rmrb.zhouenlai.info/%E4%BA%BA%E6%B0%91%E6%97%A5%E6%8A%A5%EF%BC%8881946-2003%EF%BC%89/1999/04/1999-04-17.htm; Sheng Zhengli (盛振利), Beijing Shoupi Renyang Lvdi de 12 jia Danwei Chuzi jin 650 wanyuan, Renyang le 37 wan Pingfangmi Lvdi; Zixun Renyang Qingkuang de Shimin Danwei Shuyiqianji (北京首批认养绿地的12家单位出资近650万元, 认养了37万平方米绿地; 咨询认养情况的市民、单位数以千计——绿地认养热京城)[The first 12 units in Beijing to adopt green space invested nearly 6.5 million yuan and adopted 370,000 square meters of green space; thousands of citizens and units inquired about the adoption situation - Green space adoption is heated in Beijing], Renmin Ribao (人民日报)[PEOPLE’S DAILY] (Apr. 12, 1999), at 11, available at https://rmrb.online/simple/?t1205208.html (last visited Oct 23, 2023).


These rules primarily list program procedures, caretaker’s rights and obligations.

A tree and green space adoption program usually requires participants to sign a non-negotiable agreement. An executed copy of the participation agreement must be submitted to the local department responsible for urban landscaping for the record. Tree and green space adoption participation agreements’ content may vary depending on local administrative rules where programs are hosted. A regular non-negotiable participation agreement includes the following rights and obligations between the participant and local government:

**The Scope of Adoption:** The agreement describes the subject for adoption, which is usually a number of trees or a designated lot of green space (i.e.: size and location). The adoption scope includes the adoption period and the costs involved.

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1014 The National Forestation Commission is established by the State Council to organize and lead the urban and rural landscaping work in all localities, and its office shall be located in the competent forestry administrative department under the State Council. At the municipality level, a competent urban landscaping administrative department of a municipal people's government shall be responsible for the work of urban landscaping in the urban planned area within its respective administrative region. *See Chengshi Lvhua Tiaoli* (城市绿化条例) [*Regulations on Urban Landscaping*], adopted by the 104th Executive Meeting of the State Council on May 20, 1992, revised on January 8, 2011. Article 7.
Participant’s Rights and Obligations: The participant’s primary responsibility is to properly maintain the adopted trees and(or) green space. Participants cannot engage in any for-profit activities on top of the adoption, change the ownership of the adopted subject, or build any construction on the site. Some participation agreements specify that participants follow certain standards to maintain the subject and submit a management plan to the program organizer.\textsuperscript{1015}

Program Organizer’s Rights and Obligations: Program organizers’ responsibility is to monitor and supervise participants’ activities. If the participant takes no corrective measures for his non-compliant behavior after warning, the program organizer has the right to terminate the participation agreement. Besides, some program organizers would provide knowledge support with the annual maintenance costs paid by participants.\textsuperscript{1016}

China also uses non-negotiable agreements to encourage energy conservation. Because of the first pilot program’s success in the Province of Shandong, voluntary agreements were listed as a new mechanism to be promoted in China for energy saving in the State's Medium- and Long-Term Energy Conservation Plan issued in 2004.\textsuperscript{1017} During the Eleventh Five-Year Plan (2006-2010), many cities set up pilot programs to

\textsuperscript{1015} See the green space adoption agreement, dated as of January 1, 2023, by and between the Government of Dongcheng District of the City of Beijing and Jinyu Property Management Limited Liability Company as an example, available at https://www.bjdch.gov.cn/zwgk/tzgg/202212/P020230410831458912284.pdf (Article 6 is about the maintenance standard)

\textsuperscript{1016} Id. Article 5.

explore using voluntary agreements to help achieve the energy conservation goals set in the Plan.\textsuperscript{1018} The Energy Conservation Law (2007 revised) explicitly discussed utilizing voluntary agreements to save energy.\textsuperscript{1019} Furthermore, promoting voluntary agreements to engage companies in energy conservation is one of the key tasks in the Industrial Energy Conservation Plan during the 12th Five-Year Plan (2011-2015) in 2012.\textsuperscript{1020} In this context, the Standardization Administration and General Administration of Quality Supervision, Inspection and Quarantine issued a template of voluntary agreement for energy conservation in 2011.\textsuperscript{1021}

The template shows a typical voluntary energy conservation scheme includes three parties: (1) the local authority that is responsible for managing energy conservation, (2) the participating company or industrial association that sets the energy-saving goal,

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\textsuperscript{1020} See Ministry of Industry and Information Technology (工业和信息化部), Gongye Jieneng Shi’erwu Guihua (工业节能“十二五”规划) [Industrial Energy Conservation Plan during the 12th Five-Year Plan], February 27, 2012.
\textsuperscript{1021} See Zhongguo Biaozhunhua Yanjiuyuan (中国标准化研究院) [China National Institute of Standardization], Jienneng Ziyuanxieyi Jishu Tongze (节能自愿协议技术通则) [General technical rules for voluntary agreement of energy conservation], GB / T26757—2011. Attachment A.
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and (3) a third-party organization that is to verify the participant’s performance.\footnote{1022}The energy-saving goal shall be stated clearly in the agreement as “to achieve (a mid-term goal) by X year and (a final goal) by Y year.”\footnote{1023}

According to the template agreement, the participant is responsible for submitting a plan that states how to materialize the goal(s) and status reports; the government agency has the right to review the plan and verify the implementation status.\footnote{1024} Meanwhile, the government agency is responsible for supporting voluntary energy conservation and providing financial incentives to help participants achieve the set goal(s).\footnote{1025} Noted that the government agency can request a refund if the participant fails to meet the goal(s).\footnote{1026} If the participant met the voluntary goal(s), the government agency should give the participant proper recognition and promote the technology the participant used in energy conservation, under the premise of confidentiality.\footnote{1027}

An independent third-party organization is responsible for verifying the participant’s energy conservation performance within a certain period.\footnote{1028} Depending on the local governmental agency, the third-party organization can be designated by the participant alone or jointly by the agency and the participant.\footnote{1029} The government agency
and the participant are not allowed to terminate the agreement during the implementation period and only use informal discussions to resolve disagreements.\textsuperscript{1030}

\textbf{The U.S.}

Non-negotiable agreements are mostly used in partnership programs (sometimes called “outreach programs”) in the U.S.\textsuperscript{1031} The U.S. EPA defines “partnership” as “[v]oluntary and collaborative relationships between various parties, both public and non-public, in which all participants agree to work together to achieve a common purpose or undertake a specific task and, as mutually agreed, to share risks, responsibilities, resources and benefits”.\textsuperscript{1032} Participants of a partnership are called “partners.” As indicated, partnership is a collaboration between governments, non-profit organizations, civil society, and businesses to work together on specific environmental issues. The U.S. EPA positions voluntary partnership programs to “work in tandem with regulatory programs to protect public health and the environment.”\textsuperscript{1033}

Some U.S. EPA partnerships invite multiple social actors to participate, others target specific types of companies. For example, the Green Power Partnership program’s eligible partners include businesses of any size based in the U.S., governments at

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\textsuperscript{1030} \textit{Id.}
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\textsuperscript{1031} Some partnership programs are referred to as “outreach programs,” such as the Landfill Methane Outreach Program and the Coalbed Methane Outreach Program.
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different levels (local, state, tribe, and federal), NGOs, communities, colleges, and universities.\textsuperscript{1034} In contrast, the GreenChill Partnership program is designed to collaborate only with the food retail industry to improve its commercial refrigeration systems.\textsuperscript{1035} Because one partnership program may have different targeted groups, the program organizer may pre-develop multiple non-negotiable agreements for different types of participants. For example, the WaterSense partnership has different participation agreements for manufacturers, retailers and distributors, builders and professional certifying organizations to execute.\textsuperscript{1036}

State and local governments also develop partnership programs as an alternative to managing climate issues. For example, the City of Fort Collins in the State of Colorado operated the ClimateWise program from 2000 to 2020 to help local businesses use natural resources efficiently.\textsuperscript{1037} Similarly, the City of New York launched the NYC Carbon Challenge in 2007, aiming to help commercial properties reduce their GHG emissions by 30% or more over ten years.\textsuperscript{1038} These initiatives, together with other

\begin{footnotes}
\item See NYC Carbon Challenge, City of New York Office of Climate and Environmental Justice, https://www1.nyc.gov/site/sustainability/our-
governance alternatives such as financial incentives, serve as an attractive tool for local
governments to respond promptly to novel environmental issues like climate change.¹⁰³⁹

The typical process of joining a partnership program is summarized as follows:¹⁰⁴⁰ (1) the applicant contacts the program and requests a partner application package, including a non-negotiable participation agreement; (2) the applicant signs the agreement that outlines both parties’ rights and responsibilities. In some partnerships, applicants need to develop and submit goals to be achieved during the agreement term; (3) the governmental agency reviews the applicant’s eligibility for joining the initiative and countersigns the partnership agreement as approval.

This author uses partnership programs developed by the U.S. EPA as examples to demonstrate parties’ rights and responsibilities under non-negotiable participation agreements, as many researchers focus on them when discussing government-organized VEPs. A typical partnership agreement includes:

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¹⁰⁴⁰ The author summarized these steps after reviewing different partnerships organized by the U.S. EPA.
Reporting and Monitoring: Most partnership agreements ask partners to submit required information and report progress to the U.S. EPA annually. For example, the SmartWay Partnership asks participating companies to use tools provided by the U.S. EPA to measure and generate reports on their supply chains’ carbon footprint. In return, companies receive free sustainability accounting, detailed reports and statistics about their efficiency and performance compared to peers, and documentation of their performance to share with customers and stakeholders.

The U.S. EPA’s monitoring duty is to update the partners’ records and track if partners fulfill their responsibilities. The U.S. EPA handles participants’ confidential information by regulations. The agency can use non-confidential information and data...

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1042 Id.
1043 For example, partners of the Green Power Partnership are required to send the information of their green power use to the U.S. EPA annually. See Green Power Partnership Requirements, U.S. Env’t Prot. Agency, https://www.epa.gov/greenpower/green-power-partnership-requirements (last visited Jan. 16, 2024).
1044 “In matters relating to this DfE partnership and Agreement, EPA agrees to handle all information claimed by [Company Name] as confidential business information in accordance with EPA confidentiality procedures (see 40 CFR part 2, subpart B). EPA and [Company Name] agree that information supplied to EPA by [Company Name] regarding the formulas of any [Company Name] products or in connection with any audits required pursuant to Section 12 of this Agreement is covered by the foregoing sentence. EPA/DfE agrees to only use the information provided by [Company Name] for purposes related to the [Company Name]-EPA/DfE partnership and disclose the information only to EPA employees and EPA contractors cleared for confidential information with a specific need to know. See U.S. Env’t Prot. Agency, Design for the Environment Partnership Agreement Letter, template, available at https://www.epa.gov/system/files/documents/2022-
from partners to “help the U.S. EPA determine the required data points and expected number of reporters for each industry sector [related to the partnership program].”

Meet Certain Technical Standards: Some partnership agreements (including Energy Star, Natural Gas Star, and WaterSense) require applicants to meet strict standards developed by the U.S. EPA to improve resource efficiency. For example, the Energy Star label means certified products or facilities (buildings and industrial plants) use less energy—certified refrigerators are at least 15% more efficient than the minimum federal efficiency standard; and certified buildings use 35% less energy than typical buildings nationwide. These partnerships have motivated businesses to meet voluntary standards beyond legal requirements and educate consumers the relationship between

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1045 This is a comment from the representative of one of the voluntary partnership programs F-Gas Partnership Programs. One example that she provided to verify this comment is the GHGRP Subpart T: Magnesium Production. According to the initial Technical Support Documentation, the partnership’s data is used. See U.S. ENV’T PROT. AGENCY, SUBPART T TECHNICAL SUPPORT DOCUMENT- MAGNESIUM PRODUCTION (2009), available at https://www.epa.gov/ghgreporting/subpart-t-technical-support-document (last visited Jan. 9, 2023).


energy efficiency and cost-savings. In 2000, only 40% of Americans recognized the Energy Star label, while awareness has grown to over 90% after three decades of implementation.1048

**Usage of Partnership’s Exclusive Logo or Label:** Many partnerships often have exclusive logos or labels that partners can use upon joining or if their products meet certain standards. For example, the WasteWise program allows partners who have registered and submitted their waste-producing baseline data to use the program logo to promote their waste reduction efforts internally and externally.1049 Partnership logos can be a helpful marketing tool; thus, program organizers usually mark it as a benefit to attract partners.1050 Partners need to follow specific requirements to display the logo or label under the agreement. The U.S. EPA has the right to actively resolve noncompliant logo usage.

**Technical Support/Knowledge-Sharing:** The U.S. EPA generally lists this aspect as a benefit to motivate qualified companies and organizations to join a partnership. However, providing knowledge support can be participants' responsibility in some programs. For example, the Landfill Methane Outreach Program requires partners to designate at least one expert to answer questions about his area(s) of landfill gas


1050 Most partnerships list “using the logo” as one of the perks on the webpages.
Noted that these partnership agreements usually do not specify the means and frequency of providing technical and knowledge resources.

**Award to the Outstanding Partners:** Most participation agreements also allow the program organizer to award certain participants publicly annually. The selection principle is to choose those who help advance the program’s overall mission and increase a partnership’s brand awareness in a measurable way. Awarding outstanding program participants is used as a benefit to attract targeted groups as well.

Noted that partnership agreements are not legally binding. Program organizers and participants use informal discussions to resolve disputes derived from the agreement. Either party may terminate the agreement at any time and for any reason without penalty or compensation.

**Comparison**

Regardless of the U.S. and China, the successful implementation of government-organized VEPs that incorporate non-negotiable agreements does not directly lead to the development of mandatory law. Although Chinese local governments may turn rules of government-organized VEPs adopted non-negotiable agreements into administrative rules to manage the programs continuously, these programs stay voluntary.

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1052 One example is the WaterSense Partnership program. See *WaterSense Partnership*, U.S. ENV’T PROTECTIVE AGENCY, [https://www.epa.gov/watersense/watersense-partnerships](https://www.epa.gov/watersense/watersense-partnerships) (last visited Aug. 4, 2023).
In the U.S., partnership programs are generally voluntary, except for those that have been terminated. Reasons for terminating a partnership program include achieving program goals, merging one program into another or expanding the existing program to form a new VEP. For example, the programs of Green Lights and Energy Star merged to form the Energy Star Program for Commercial Buildings in 1995, expanding to focus on whole-building energy efficiency.\textsuperscript{1053} Another example is the Climate Leader program, launched by the U.S. EPA in 2002.\textsuperscript{1054} It aimed to work with businesses to reduce their GHG emissions and offered “an early standard for tracking and reducing [their] greenhouse gas emissions.”\textsuperscript{1055} The program was eventually expanded and led to the establishment of the Center for Corporate Climate Leadership in 2012.\textsuperscript{1056} Such program and resource expansion enables to help more companies to tackle climate change.\textsuperscript{1057} As of today, the Center has served as a knowledge base for organizations ranging from small businesses to Fortune 500 companies.\textsuperscript{1058}

The binding force of non-negotiable agreements used in government-organized VEPs could be different. In the U.S., all partnership agreements do not have legally

\textsuperscript{1053} 30\textsuperscript{th} Anniversary-History of EPA's Climate Partnership Programs, see supra note 1070.
\textsuperscript{1055} Id.
\textsuperscript{1057} Id.
\textsuperscript{1058} 30th Anniversary-History of EPA’s Climate Partnership Programs, see supra note 1053.
binding force and parties use informal discussions to resolve disputes. Similarly, in China, non-negotiable agreements for energy conservation are like mutual understanding statements, while some cities’ tree and green space adoption programs are legally binding, and parties can seek judicial remedies to resolve the dispute.

The U.S. government-organized VEPs (mostly partnership programs) use non-negotiable agreements more frequently than China. VEPs organized by the U.S. EPA alone have covered various topics, including agriculture, air quality, energy efficiency and climate change, pollution prevention, product labeling, transportation, technology verification, waste management, and water efficiency. Over one-third of U.S. voluntary partnership programs are designed to address GHG reduction and promote clean energy. In China, non-negotiable agreements are primarily used in energy conservation and local urban green space and tree adoption programs.

4.3.3 Application-based Statements

Program organizers can verify participants’ involvement in government-organized VEPs through application-based statements. Applicants provide information in response to questions posed by program organizers during their application process for joining specific government-organized VEPs, which may include environmental protection commitments. Application-based statements are frequently employed in government-


Brouhle et al., see supra note 46, at 9.}
organized environmental recognition programs. This section showcases the features of this voluntary approach by examining VEPs that integrate application-based statements.

**China**

Environmental recognition programs organized by national and provincial governments are designed to motivate local governments (such as villages, towns and cities), public institutions, and companies to achieve better results for environmental protection than legal requirements.

Recognition programs’ names can reveal the program’s target groups. For example, it is easy to tell that the recognition of "Green School" is for schools to apply only;\(^{1061}\) the recognition of “model company of industry product green design” ("Lǜsè shèjì shìfàn qǐyè"),\(^{1062}\) “energy-efficient and environmentally friendly automobile certification” (Jiénéng huánbǎo xíng qíchē rènzhèng)\(^{1063}\) and “energy-saving home appliance” (Jiénéng jiādiàn)\(^{1064}\) are open for any qualified companies to apply.

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\(^{1061}\) Governments at the provincial and city levels have established green school recognition programs, respectively.

\(^{1062}\) Guanyu Zuzhi Kaizhan Di’erpi Gongye Chanpin Shengai Lvse Sheji Shifan Qiye Chuangjian Gongzu de Tongzhi (关于组织开展第二批工业产品生态（绿色）设计示范企业创建工作的通知), [Notice on Selecting the Second Batch of Industrial Product Ecological (green) Design Demonstration Enterprises], issued by the Ministry of Industry and Information Technology on August 24, 2015, No.428.


\(^{1064}\) Zhongguo Zhiliang Renzheng Zhongxin (中国质量认证中心) [China Quality Certification Center], Ziyuan Jieyue Jieneng Jieshui Renzheng (资源节约(节能、节水)
Recognition programs that do not indicate targeted groups in the program names usually include a broad spectrum of applicants, such as the “pace-setters in energy efficiency” (Néngxiào lǐngpǎo zhĕ) program encourage companies that produce the end-use energy products, energy-intensive industries, medical centers and schools to apply if they can show they have greatly improved energy efficiency.\footnote{See Guanyu Yinfa Nengxiao Lingpaozhe Zhidu Shishi Fang’an de Tongzhi (关于印发能效“领跑者”制度实施方案的通知) [Implementation Plan on the Program of Pace-Setters in Energy Efficiency], issued by multiple national departments on December 31, 2014, No.3001.}

Each applicant needs to submit an application package to the program organizer. The organizer verifies the application by paying on-site visits to confirm all presented facts. If all requirements are met and no objections arise during the public notice period, the program organizer will award the recognition title.

For example, the National Environmental Protection Model City (Guójiā huánjing bāohù mófān chéngshì) program used this process to select and grant 84 cities/districts the recognition.\footnote{This program was proposed during the 9th Five-Year Plan (1996-2000), and the first batch of environmental protection model cities was awarded in 1997. See Zhenhua Xie, China’s historical evolution of environmental protection along with the forty years’ reform and opening-up, ENV’T SCI. & ECOTECH., Volume 1, Jan. 2020, available at https://www.sciencedirect.com/science/article/pii/S2666498419300018; The program figure is based on a list of participants compiled by the website of China City Low Carbon Economy in 2013. The webpage was archive by Baidu after the page is expired. See Baidu (百度), cankaoziliao (参考资料) [Reference], available at https://baike.baidu.com/reference/771503/d372Wwe8k4frVWoxEzlh-}
aspects in their applications: (1) the applicant city’s background information, including the analyses of the local ecology and environment, pollution management and local economy; (2) the applicant city’s challenges and opportunities regarding becoming a National Environmental Protection Model City; (3) discussion of the environmental indicators that the applicant city has achieved and analyses of those the city has not achieved; (4) discussion of how to incorporate the concept of building a National Environmental Protection Model City into the city’s development and planning ranging from short to long term; (5) discussion of how to upgrade the local economy to protect the environment; (6) discussion of how the applicant city has and will continuously improve environmental quality. (7) discussion of how the applicant city has and will continuously refine the infrastructure related to environmental protection; (8) discussion of how the applicant city has and will continuously enhance environmental safety; (9) discussion of how the applicant city has and will continuously improve its environmental management capacity and schemes; (10) discussion of the city’s major projects and sources of funding; (11) the analyses of feasibility and achievability of becoming a National Environmental Protection Model City; and (12) discussion of how the local government will implement the goals and tasks discussed in the application.

TTX1XF06WVFyckVx5FBKGQ4MQpipKOvDBZe1gvIGU5B3oXNhINk-DL2OYLPF-pIaAStq7t5YFNy404OZALj (last visited Dec.21, 2023).

1067 Chuangjian Guojia Huanjing Baohu Mofan Chengshi Guihua Bianzhi Dagang (创建国家环境保护模范城市规划编制大纲) [Planning Outline of Creating a National Environmental Protection Model City], issued by the former Ministry of Environmental Protection on August 15, 2011, No.965.
The awarded cities need to renew the “National Environmental Protection Model City” recognition every five years by resubmitting an updated application package. This program design can pressure the cities/districts that received the title to maintain and even progress their performance on environmental protection. Research has shown that the model city program raised the bar in terms of environmental standards, and these model cities have had a positive impact on regional economic development. Besides, China further implemented programs of ecological recognition in provinces, cities and counties.

Similar program procedures also apply to environmental recognition programs that target companies. For example, “National Environmentally Friendly Enterprise” (Guójiā huánjìng yǒuhǎo qǐyè) is the highest award recognizing corporate environmental protection efforts in China. The national government “established strict requirements” to evaluate a company’s efforts to reduce products’ negative environmental impacts,

1068 See Guojia Huanjing Baohu Mofan Chengshi Chuangjian yu Guanli Gongzuo Banfa (国家环境保护模范城市创建与管理工作办法) [Measures for the establishment and management of national environmental protection model cities], issued by the Ministry of Environmental Protection on January 27, 2011, Article 39 and 40.
1070 Xie, see supra note 1066.
1071 Yuan Guojia Huanbao Zongju (原国家环保总局) [The Former State Environmental Protection Administration], Woguo Xinzheng 21 ge Guojiahuanganjing Youhaoxing Qiye (我国新增 21 个国家环境友好企业) [China has added 21 new national environmentally friendly enterprises], press release (Oct. 20, 2005), https://www.mee.gov.cn/gkml/sthjbgw/qt/200910/t20091023_179945.htm (last visited Feb. 16, 2024).
including raw material sourcing, production technology, manufacturing process, various environmental indexes and its performance on corporate social responsibility. Corporate applicants should demonstrate these qualities in their applications. Awarded companies are expected to be model enterprises to show other companies that “[a] coordinated relationship between economic development and environmental protection” is achievable. It is worth mentioning that the program organizer required companies that received this recognition to sign voluntary agreements with the provincial government where the company is located to reduce its pollutant emissions continuously.


1074 Xie Zhenhua pointed out at the awarding ceremony of the first batch of "National Environmentally Friendly Enterprises" that, environmentally friendly enterprises can help develop a new path to industrialization. Xie, see supra note 1072.

1075 Notice on Further Improving the Work of Establishing National Environmentally Friendly Enterprises, see supra note 1073.
Meanwhile, to cultivate qualified candidates for the “National Environmentally Friendly Enterprise” recognition, many provinces and cities developed incentives to motivate companies to adopt clean and green production processes.¹⁰⁷⁶ Common incentives included supporting companies’ innovative high-tech projects and their needs for technology upgrades, prioritizing their products when developing policies related to governmental procurement, import and export quota, and industrial restructuring.¹⁰⁷⁷

The U.S.

Although many partnership programs contain the environmental recognition aspect as discussed in Part 4.3.2,¹⁰⁷⁸ some non-partnership environmental recognition programs use application-based statements to confirm applicants’ participation.

For example, the SolSmart program, created by the U.S. Department of Energy in 2016, is a national recognition and technical assistance program for local

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¹⁰⁷⁸ See supra Part 4.3.2.
Solar projects may bring many environmental and social benefits to the communities; however, related administrative processes and costs (known as “soft costs”) can increase the solar project developer’s time and money to install a solar energy system and thus prevent more businesses and individuals from adopting renewable energy.\textsuperscript{1080} According to the U.S. Department of Energy’s statistics, soft costs represent about 64% of the total cost of a solar energy system.\textsuperscript{1081}

To ease solar soft costs at the local level, the SolSmart program develops a list of objectives based on established solar development best practices to measure local government progress toward creating a solar-friendly community.\textsuperscript{1082} Local governments meeting measurable objectives can reduce solar project development’s soft costs, such as smoothing permitting and inspection, making exemptions for solar projects in planning and zoning, increasing coordination between different departments within government operations, developing measures to promote solar energy within the community, financing programs and other innovative measures.\textsuperscript{1083}

\textsuperscript{1082} SolSmart Program Guide, \textit{see supra} note 1080, at 1-2.
\textsuperscript{1083} See \textit{id.} at 5-9.
The program organizer will award local governments that complete requirements of SolSmart Bronze, Silver, or Gold Designation. The program organizer will list the awarded local governments on the SolSmart program’s website, social media and newsletter. The component of national recognition under the SolSmart program has effectively spurred the adoption of solar power at the local level. As a marketing tool, the recognition differentiates the awarded local government from others and helps attract people and businesses to live and engage with these communities.

To get involved with the SolSmart program, local governments must complete and submit a Solar Statement to demonstrate the government’s commitment to work with the SolSmart team and achieve certain designation. The SolSmart program requires applicant governments to include the following content in their Solar Statements:

1. A commitment to participate in the SolSmart designation process;
2. A statement of solar goals, areas of focus or community priorities (e.g. streamlining the permitting process or supporting a non-profit led solar initiative);
3. A commitment of support for

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1084 See id. at 2-3.
1087 Id.
1089 SOLSMART PROGRAM GUIDE, see supra note 1080, at 11.
solar development to be inclusive and equitable for all residents; (4) Past achievements or programs related to solar PV and/or renewable energy; (5) A commitment to tracking metrics related to solar PV and/or provide a benchmark of available solar metrics (e.g. the number of installed systems, capacity, growth in residential installations, etc.); and (6) A commitment of staff time and resources to improve the local market for solar photovoltaic project development. These commitments cover key aspects that can influence goal development and implementation. The Solar Statement should be signed by the local government’s representative.1090

Upon joining the program, the organizer assigns a technical assistance provider to each local government to conduct a baseline assessment of the community’s processes on solar energy system installations.1091 This analysis helps both parties determine how close the community is to designation (their commitments) and any additional technical assistance to achieve designation.1092 After the baseline assessment, with guidance from the SolSmart team, local governments should complete any credits needed to achieve designation.1093 Such customized technical support not only saves participating local governments’ time and efforts to locate existing best practices, but also allows the local government to balance the best practices recommendations from the SolSmart team and the feasibility of the local government to adopt these suggestions.1094 The SolSmart

1090 Id.
1091 SOLSMART PROGRAM GUIDE, see supra note 1080, at 10.
1092 Id.
1093 Id.
1094 Gao et al., see supra note 1086.
program delicately combined free technical assistance and national recognition as benefits to attract local governments to join the program. Especially, the former enables participating local governments to reach their goals and makes the subsequent recognition possible.

**Comparison**

For government-organized environmental recognition programs that incorporate application-based statements, program organizers in the U.S. and China rely on the following ways to determine if an applicant meets the criteria: (1) asking an authorized third-party to verify the applicant's submission, particularly when such information is technically related, such as the Energy Star program in the U.S.\textsuperscript{1095} and the program of “pace-setters in energy efficiency” in China;\textsuperscript{1096} or (2) establishing a group within the program to review submitted materials and(or) visit the applicant on site, such as the SolSmart program in the U.S. and the program of “National Environmental Protection Model” in China. In China, a review group includes representatives from those national or provincial departments that have jointly developed the recognition program. Furthermore, both countries require participants to renew the awarded recognitions regularly, ensuring program participants maintain high performance.


\textsuperscript{1096} See Gaonenghao Hangye Nengxiao Lingpaozhe Zhidu Shishixize (高耗能行业能效“领跑者”制度实施细则) [Implementation Rules for Energy Efficiency "Top Runner" System in High Energy Consumption Industries], issued by multiple national departments on November 25, 2015.
Government-organized VEPs incorporated application-based statements as the participating format tend to remain voluntary in China and the U.S. However, these programs can scale their impacts significantly through replication. In China, some national environmental recognition programs were promoted to the provincial and local levels, meaning similar departments at the provincial and local levels are required to organize a similar program to target participants within its administrative territory. For example, the “National Environmentally Friendly Enterprises” program was established by the former State Environmental Protection Administration in 2003. Since then, governments at the provincial and local levels have followed the program as a model and established their “provincial/local environmentally friendly enterprises” programs.

4.3.4 Guidance

Guidance (or guidelines) is developed and issued by government to provide advice on tackling specific environmental problems and advocating a particular practice or stricter standard compared to legal requirements.


China

There has yet to be an official definition of guidance in Chinese law. Guidance document’s name usually ends with “Zhǐnán,” “Zhǐyǐn” or “Zhǐdǎo yìjiàn.” The preface section usually specifies the document’s legal nature (mandatory or voluntary) and applied circumstances and sectors.

The national government usually initiates and develops national guidance on a specific topic. By following the national guidance, governments at the provincial and local levels can further develop guidance documents to specify certain practices within their administrative areas. For example, the national government issued Guidelines for the Development of Electric Vehicle Charging Infrastructure (2015-2020) in 2015 and required all provincial and local governments to “implement [the Guidelines] conscientiously.” 1099 Accordingly, the Guangdong Province issued Electric Vehicle

Charging Infrastructure Planning (2016-2020)\textsuperscript{1100} and the City of Shenzhen developed a New Energy Vehicle Promotion and Application Work Plan for 2016-2020 to accelerate the construction of electric vehicle charging infrastructure within the respective administrative areas.\textsuperscript{1101} In this case, the relevant national guidelines serve as an administrative directive to push provincial and local governments to detail the national guidelines for implementation. The national guidelines are legally binding to provincial and local governments.

Besides, guidance issued by government at any level under a mandatory law to specify the law’s implementation is usually mandatory. For example, the City of Shenzhen issued Shenzhen Special Economic Zone Green Finance Regulations in 2020 and it includes multiple provisions that require certain companies to disclose environmental information.\textsuperscript{1102} In 2022, the government of Shenzhen developed


\textsuperscript{1101} Shenzhen Sheng 2016-2020 Nian Xinnengyuan Qiche Tuiguang Yingyong Gongzuofang’an (深圳市 2016-2020 年新能源汽车推广应用工作方案) [Shenzhen new energy vehicle promotion and application work plan 2016–2020], issued by Shenzhen Development and Reform Commission in 2016.

Guidelines for Financial Institutions Environmental Information Disclosure to “standardize the environmental information disclosure work of financial institutions in Shenzhen and improve the quality of environmental information disclosure.”\textsuperscript{1103} The Guidelines have legal binding force.\textsuperscript{1104}

In contrast, guidelines developed by the national government but not requiring provincial or local governments to detail further implementation are often voluntary and such guidelines usually target the business sector. Companies of interest can adopt the guidelines for daily practice without the application process involved. Naturally, no monitoring from the government is required. For example, the Guideline of Environmental Protection for Overseas Investment and Cooperation aims to “guide Chinese companies to standardize further its environmental protection behavior in the activities of overseas investment, to identify and prevent environmental risks in time, and guide companies to actively fulfill the social responsibility of environmental protection.”\textsuperscript{1105} The guideline has no legally binding effect and only relies on Chinese

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\textsuperscript{1104} All financial institutions in Shenzhen shall comply with the requirements listed in the issuance notice. See id.

\textsuperscript{1105} See Duiwai Touzi Hezuo Huanjing Baohu Zhinan (对外投资合作环境保护指南) [The Guideline of Environmental Protection for Overseas Investment and Cooperation], issued by Ministry of Commerce and the former Ministry of Environmental Protection of People’s Republic of China on February 18, 2013, No.74,
enterprises to “consciously” follow it.\(^\text{1106}\) Another example is the Guideline of Enterprise Green Procurement, which lists general procurement principles that help companies green their internal supply chains, including raw material sourcing, supplier selection, and product or service design.\(^\text{1107}\)

Voluntary guidance documents can indicate key areas of concern for legislators and provide direction for companies and the CSO sector to explore real-life practice, including establishing new VEPs. Noted that voluntary guidance could become mandatory when a law explicitly uses the guidance as the standard.\(^\text{1108}\)

The U.S.

Guidance is a term in the U.S. administrative law used to describe a variety of documents created by government agencies to explain, interpret, or advise interested


\(^{1106}\) Id.

\(^{1107}\) See Qiye Lvse Caigou Zhinan Shixing (企业绿色采购指南（试行）) [The Guideline of Enterprise Green Procurement], jointly issued by Ministry of Commerce, the former Ministry of Environmental Protection and Ministry of Industry and Information Technology of China on December 29, 2014.

parties about rules, laws, and procedures. Guidance comes in many forms, including memoranda, notices, bulletins, directives, news releases, letters, and blog posts.

Guidance comprises two categories of documents: interpretative (or interpretive) rules and general statements of policy. Interpretive rules are statements of general applicability and future effect that set forth an agency’s interpretation of a statute or regulation, and general statements of policy set forth an agency’s policy on a statutory, regulatory, or technical issue. The Administrative Conference of the United States, an independent federal agency that develops recommendations to improve administrative processes, deems documents that governmental agencies provide about the meaning and purpose of their rules at the time those rules are issued (known as “contemporaneous guidance”) as the third type of guidance.

See id.
The nature of guidance is voluntary. Examples developed by the U.S. EPA include the Sensible Steps to Healthier School Environments 2012, aiming to “[provide] guidance for effective policy development and implementation” of building a green school environment. Another example is the Voluntary National Guidelines for Management of Onsite and Clustered (Decentralized) Wastewater Treatment Systems, whose primary audience includes state, tribal and local regulators and community officials responsible for regulating onsite and clustered systems. The U.S. EPA “strongly encourages [state, tribal, and local authorities] to consider [this guideline] as a template in strengthening existing management programs and implementing new ones.” Governments at the lower levels can adopt the guidance partially or as a whole in their daily practice. If any state, tribal or local authorities adopted the guidelines,

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1114 Bowers, see supra note 1111.
partially or entirely, the voluntary guidelines could become mandatory law at the state or local level.\textsuperscript{1118}

Although guidance documents are not legally binding, they affect compliance practices by providing greater clarity to the regulatory community on how the U.S. EPA and other federal agencies are likely to interpret and enforce their rules in practice.\textsuperscript{1119} Noted that guidance documents are generally not “judicially reviewable” in the U.S. because of the voluntary nature.\textsuperscript{1120} Based on that, challenges to agency guidance have routinely been dismissed by the courts.\textsuperscript{1121}

**Comparison**

\textsuperscript{1118} This conclusion is also clearly reflected in the example of newly released toxic Per- and Polyfluoroalkyl Substances (PFAS) Rules by the U.S. EPA. The U.S. EPA recommended four types of PFAS that poison ground and drinking water be no higher than 0.004 parts per trillion in drinking water in new health advisories released in late August 2022. The New York State officials are waiting on the federal agency to release additional guidance about PFAS before it expands regulating the chemical at the state level. See Kate Lisa, *State awaits federal guidance before expanding PFAS rules*, Spectrum News, (Oct. 13, 2022, 9:14 PM EST), https://spectrumlocalnews.com/nys/central-ny/politics/2022/10/13/state-awaits-federal-guidance-before-expanding-pfas-rules (last visited Dec. 27, 2022).


\textsuperscript{1120} While there is widespread agreement that policy statements are non-binding, there is less uniformity as to whether interpretive rules may be binding or must preserve an agency’s discretion to act on a case-by-case basis. Bowers, see supra note 1133, at 1.

\textsuperscript{1121} For agency action to be reviewable by a court, the U.S. Supreme Court has established that the action must constitute “final agency action” under the federal Administrative Procedure Act, which means that the action (1) must represent the “consummation” of the agency’s decision-making process; and (2) must determine legal rights and obligations or give rise to direct and appreciable legal consequences. See Bennett v. Spear, 520 U.S. 154 (1997).
guidance documents in the U.S. and China are closely linked to laws and policies. Each guidance document has a background section that explains the relationship between the guidance and specific laws and policies, the purpose of the guidance (to fulfill certain mandatory requirements or support legal compliance) and the application of the guidance. Voluntary guidance can become mandatory in China if a specific law designates it as the standard. In the U.S., state and local governments adopting federal guidance through their legislative process can also make it mandatory.

4.4 How Existing Laws Support and Monitor the Effectiveness of Government-Organized Voluntary Environmental Programs

Government-organized VEPs function as platforms for learning and information sharing to enhance environmental performance, including promoting best practices. These VEPs also create “spillover effects”, extending benefits beyond program participants. In other words, a government-organized VEP’s effectiveness lies in whether it has improved shared understanding on certain environmental subjects. If spillover effects are failed to consider when evaluating government-organized VEPs’

1122 Spillover Effects mean that public voluntary environmental programs helped improve the environmental performance not only of businesses that participate in these programs but also of businesses that do not. See Borck & Coglianese, supra note 57.
1123 Supra Part 2.5 (it states that a shared understanding among different social actors helps future legislation get passed and implemented with less resistance).
effectiveness, it would not be fully understand their impact and thus perceive them as ineffective.\footnote{Ian Lange, \textit{Evaluating Voluntary Programs with Spillovers: The Case of Coal Combustion Products Partnership}, B.E. J. ECON. ANALYSIS & POL’Y, 9(1), Article 36. 2009, at 16-17.}

This section applies the indicators proposed and illustrated in Chapters 2 and 3, to examine whether and how existing laws ensure government-organized VEPs’ authenticity and effectiveness.

\subsection*{4.4.1 The Willingness of the VEP Organizer}

As discussed in Part 4.1.1, governmental VEP organizers’ willingness to develop, implement, monitor and evaluate these programs is regulated by law as government's administrative function, regardless of whether in the U.S. or China.

However, a government’s willingness to develop VEPs could be influenced by other factors. For example, the State of Texas in the U.S. prohibits the state government from doing business with financial institutions that boycott fossil-fuel companies with their corporate environmental, social, and governance (ESG) policies.\footnote{Known as the Texas Senate Bill 13 (SB 13) (2021-2022). \textit{See} Tex. Gov’t Code Ann. § 809 (2021). Also \textit{see supra} Part 2.4.2.} Since the oil and natural gas sector plays a vital role in Texas,\footnote{In 2022, the oil and natural gas industry employed more than 347,800 Texans, representing about 37 percent of all industry employment in the U.S.. \textit{See} Spencer Grubbs, \textit{Fighting a Fossil Fuels Boycott}, COMPTROLLER OF THE STATE OF TEXAS (May 2023), https://comptroller.texas.gov/economy/fiscal-notes/2023/may/fossil-fuels/ (last visited Feb. 12, 2024).} the law aims to safeguard the state’s energy diversity and fiscal well-being by ensuring continued support for both fossil fuels...
and alternative energy sources. This example suggests that governments might prioritize the local economy over environmental concerns, potentially affecting their willingness to create relevant VEPs.

### 4.4.2 The Substantial Content of VEP Design

The U.S. and China take different approaches to regulating how government agencies should organize VEPs. The former adopted unified project management standards to ensure the quality of VEP design, and the latter relied on administrative mandates.

Project management involves planning, organizing, and managing a project to ensure timely, budget-friendly, and successful completion. According to a global survey conducted by the Project Management Institute in 2018, only 64 percent of government strategic initiatives ever meet their goals and business intent, which means government entities waste $101 million for every $1 billion spent on projects and programs. Existing well-recognized and long-lasting government-organized VEPs demonstrate that effective project management plays a crucial role in their success.

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Program organizers utilize project management skills to efficiently design, implement, and monitor these VEPs.

In the U.S., the Program Management Improvement Accountability Act (the PMIAA) of 2016 requires federal agencies to adopt government-wide standards and policies for program management and establish a new interagency council to improve program and project management practices. The PMIAA also sets up the Program Management Improvement Officer, who is responsible for implementing program management policies established by their respective agency and developing strategies to enhance the role of program management and managers within their departments. Under the PMIAA’s requirements, federal agencies can continue utilizing existing agency and program-specific policies, procedures, and standards for managing agency programs, but they must generally align with the government-wide management principles. Finally, the PMIAA requires federal agencies to conduct annual portfolio reviews of programs in coordination with the Office of Management and Budget to ensure most programs are being managed effectively.

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1132 Id. at 8-9.
1133 Id. at 2.
Management and Budget should examine "high-risk" areas identified during the Government Accountability Office's annual review.1134

Program management professionals applaud the passage of PMIAA and expect the legislation to improve governmental programs’ outcomes, accountability and efficiency by incorporating program management knowledge.1135

Prior to the passage and issuance of PMIAA, the U.S. EPA, as a frequent VEP organizer, had developed a set of guidelines for its managers, staff and contractors to use when they develop, market and evaluate partnership programs.1136 These guidelines are not rules or regulations and do not impose any legally enforceable requirements on the U.S. EPA or its partners.1137 Instead, the U.S. EPA intended to use these guidelines to provide advice, guidance, and best practices for developing and implementing VEPs,1138

1134 Id.
1137 Id.
1138 Id.
and help its staff align the VEPs with the agency's strategic goals and performance measures.\textsuperscript{1139}

In China, governmental agencies need to fulfill respective environmental responsibilities designated by the State Council when designing their VEPs.\textsuperscript{1140} To resonate the country’s environmental protection priority,\textsuperscript{1141} the State Council issued the List of Ecological and Environmental Protection Responsibilities of Central and State Organs and Relevant Departments in 2020, which outlines forty-eight national departments' respective responsibilities on environmental protection.\textsuperscript{1142} In 2022, eighteen national departments jointly released the Opinions on Promoting Functional

\textsuperscript{1139} \textit{Id.}

\textsuperscript{1140} The State Council is the highest state administrative organ, managing administrative agencies in China. See Constitution of the People's Republic of China (2018 Amended), see supra note 967, Article 85, Article 89 (3) and (4).

\textsuperscript{1141} Liu, see supra note 413; China aims to “establish an environmental governance system in which government takes the lead, enterprises assume main responsibility, and social organizations and the public also participate.” See Juesheng Quanmian Jiancheng Xiaokang Shehui, Duoqu Xinshidai Zhongguo Tese Shehuizhuyi Weida Shengli (决胜全面建成小康社会 夺取新时代中国特色社会主义伟大胜利)[The 18th Central Committee of the Communist Party of China Secure a Decisive Victory in Building a Moderately Prosperous Society in All Respects and Strive for the Great Success of Socialism with Chinese Characteristics for a New Era], President Xi Jinping delivered at the 19th National Congress of the Communist Party of China, Zhongguo Ribao (中国日报 )[CHINA DAILY] (Oct. 18, 2017), English version is available at http://www.chinadaily.com.cn/interface/flipboard/1142846/2017-11-06/cd_34188086.html (last visited Jan.8, 2024).

\textsuperscript{1142} Zhongyang he Guojia Jiguan Youguan Bumen Shengtai Huanjing Baohu Zeren Qingdan (中央和国家机关有关部门生态环境保护责任清单) [The List of Responsibilities for the Relevant Departments of the Central and State Organs in the Protection of Ecological Environment, issued by the General Offices of the CPC Central Committee and the State Council on March 4, 2020.]
Departments to Do a Good Job in Ecological and Environmental Protection,\textsuperscript{1143} which reaffirmed that all departments must play their part in working with the Ministry of Ecology and Environment to fulfill related national goals.\textsuperscript{1144}

The above documents provide an administrative basis for governmental departments to conduct their work in environmental protection. In other words, a VEP developed by a governmental agency should be consistent with the agency’s overall responsibility listed in these documents. The leading national department may develop administrative measures to standardize and manage the VEP implementation.\textsuperscript{1145} These administrative measures are departmental regulations that are legally binding.\textsuperscript{1146} Accordingly, relevant governmental departments at provincial and local levels should follow administrative measures when developing their VEPs within respective

\begin{flushright}
\textsuperscript{1144} Id.
\textsuperscript{1145} For example, the Ministry of Environmental Protection issued Measures for the Establishment and Management of National Environmental Protection Model Cities for implementing and managing the “National Environmental Protection Model City” recognition program. \textit{See} Measures for the Establishment and Management of National Environmental Protection Model Cities, \textit{supra} note 1090.
\textsuperscript{1146} According to Article 90 of the Constitution, ministries and commissions shall, in accordance with the law and the administrative regulations, decisions and orders of the State Council, issue orders and directives and promulgate regulations within the scope of their authority. \textit{See} Constitution of the People's Republic of China (2018 Amended), \textit{supra} note 967, Article 90.
\end{flushright}
administrative areas, including targeted participants, VEP organizing agency and participants’ responsibilities, and program’s key focuses.\textsuperscript{1147}

4.4.3 Stakeholder Participation

Stakeholder participation is a crucial indicator to measure a VEP’s spillover effects, because it helps disseminate VEP knowledge to participants and non-participants. Government should involve stakeholders in developing and monitoring VEPs.

According to the guidelines developed by the U.S. EPA for voluntary partnership development and evaluation, “stakeholders include individuals and groups who have an interest in the program,” regardless of their participation.\textsuperscript{1148} Noted that public participation in government-organized VEPs is optional because they encourage actors to produce environmental public goods beyond legal requirements.\textsuperscript{1149}

Under the U.S. EPA guidelines, stakeholder participation should be throughout the lifecycle of government-organized VEPs.\textsuperscript{1150} At the designing phase, program organizers should assess potential stakeholder challenges and gathering feedback from

\textsuperscript{1147} One example is the Pilot Program of Hazardous Waste Collection by Small and Micro Enterprises. See Guanyu Kaizhan Xiaowei Qiye Weixian Feiwu Shouji Shidian de Tongzhli Zhengqiu Yijian Gao (关于开展小微企业危险废物收集试点的通知（征求意见稿)) [Notice on Launching a Pilot Program of Hazardous Waste Collection by Small and Micro Enterprises (Draft for Comments)], issued by the General Office of the Ministry of Ecology and Environment on November 29, 2021. The final Notice was issued on February 19, 2022 (No.66).

\textsuperscript{1148} See GUIDELINES FOR EVALUATING AN EPA PARTNERSHIP PROGRAM (INTERIM), supra note 1136, at ii.

\textsuperscript{1149} Steelman & Rivera, supra note 48, at 512.

\textsuperscript{1150} U.S. ENV’T PROT. AGENCY PARTNERSHIP GUIDELINES, see supra note 1136.
key groups. Program organizers should involve key stakeholders in developing branding materials and gaining their support during implementation. At the program evaluation phase, the guidelines ask program organizers to include stakeholder groups’ representatives in the performance measurement team and incorporate their inputs in the performance measurement plan.

Program organizers invite stakeholders to monitor government-organized VEP programs in China during development and implementation. National government departments must publicly disclose pilot program design plans and participant lists for public comment. Participants in pilot programs must submit reports that include measures taken, and independent third parties evaluate and summarize innovative experiences worth promoting and replicating nationwide. Besides, VEP organizers

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1151 GUIDELINES FOR DESIGNING EPA PARTNERSHIP PROGRAMS, see supra note 1136, at iv and 35.
1152 GUIDELINES FOR MARKETING EPA PARTNERSHIP PROGRAMS, see supra note 1136, at 44-46.
1153 GUIDELINES FOR MEASURING THE PERFORMANCE OF EPA PARTNERSHIP PROGRAMS, see supra note 1136, at 5-6.
1154 See Jia Zhen, Ge Chazhong & Li Xiaoliang (贾真, 葛察忠, 李晓亮), Huanbao Lingpaozhe Zhidujinzhan ji Jianyi (环保 “领跑者” 制度进展及建议) [Progress of and recommendations on environmental protection "pacemaker"], Shijie Huanjing (世界环境) [WORLD ENV’T], 2017, Issue 4, No.167, at 24-27.
1155 In the example of the Pilot Program of Hazardous Waste Collection by Small and Micro Enterprises, the public comment period for the pilot program requirements was twelve days (the Notice published on November 29, 2021 and the due date to submit comments was on December 10, 2021). See supra note 1147.
host meetings and discussion forums to collect feedback from key stakeholders, refining management models for future policy-making, such as the zero waste city pilot program.  

1157

In government-organized voluntary recognition programs, stakeholders can monitor participants’ performance thanks to information disclosure. For example, qualified institutions authorized by the government to verify participants’ performance must disclose energy-saving and low-carbon product certification standards and relevant information, and regularly report relevant certification statistics and program status to the National Certification and Accreditation Administration.  

1158 Any organizations and individuals have the right to report violation of certification requirements to the National Certification and Accreditation Administration.  


1157 See id; Shengtai Huanjingbu Huanjing Guihuayuan (生态环境部环境规划院) [Chinese Academy of Environmental Planning], Woyuan wei Guojia “Wufeichengshi” Shidian jianshegongzuo Tigong Youlizhicheng (我院为国家“无废城市”试点建设工作提供有力支撑) [The Environmental Planning Institute provides strong support for the national "zero waste city" pilot program evaluation], press release (Feb. 20, 2021), http://www.caep.org.cn/sy/hjjjzcyzl/zxdt_21694/202102/t20210220_821748.shtml. (the press release stated that the process of evaluating the results of the pilot program and involved organizations as advisors).  

Certification and Accreditation Administration or local quality inspection departments.\textsuperscript{1159}

Overall, existing laws in the U.S. do not necessarily require stakeholder participation in government-organized VEPs since governmental agencies are not creating laws directly through these programs. However, the U.S. EPA incorporated stakeholder participation in its guidelines for VEP development, implementation and evaluation. By comparison, China requires stakeholder participation under specific VEP’s relevant mandatory administrative measures, and the participation level may vary depending on the program.

4.4.4 The Quality of Information Disclosure

Transparency goes hand in hand with accountability. As implied in the last section, information disclosure throughout a VEP’s lifecycle empowers stakeholders to monitor VEPs and thus enables them to contribute to program design and evaluation. Laws in the U.S. and China protect the public’s right to access information about government-organized VEPs.

In the U.S., the Freedom of Information Act (FOIA) allows the public to request access to records from any federal agency since its enactment in 1966.\textsuperscript{1160} Federal agencies, including the U.S. EPA, must disclose any information requested under the FOIA unless it falls under one of nine exemptions that protect interests such as personal

\textsuperscript{1159} Id. Article 33.
privacy, national security, and law enforcement.\textsuperscript{1161} In other words, governments must disseminate proactively the non-exempt information that their citizens need or want to know.\textsuperscript{1162} Government-organized VEPs typically exclude exempted information, except for participants’ confidential data. Consequently, non-exempted information regarding these VEPs should be publicly accessible.

The FOIA officers in the federal agencies are generally responsible for implementing and overseeing their respective agencies' FOIA policies and procedures. Depending on the agency structure and functions, the FOIA officers may have different titles and roles. They are designated by the head of the agency or a senior official as the

\textsuperscript{1161} The nine FOIA exemptions are as follows: 1. Classified national defense and foreign relations information; 2. the internal personnel rules and practices of an agency; 3. Information that is prohibited from disclosure by another federal law; 4. Trade secrets and other confidential business information; 5. Inter-agency or intra-agency communications that are protected by legal privileges; 6. Information involving matters of personal privacy (protected under the Privacy Act or containing sensitive personally identifiable information); 7. Information compiled for law enforcement purposes, to the extent that the production of those records: a. Could reasonably be expected to interfere with enforcement proceedings; b. Would deprive a person of a right to a fair trial or an impartial adjudication; c. Could reasonably be expected to constitute an unwarranted invasion of personal privacy; d. Could reasonably be expected to disclose the identity of a confidential source. e. Would disclose techniques and procedures for law enforcement, investigations or prosecutions, or would disclose guidelines for law enforcement investigations or prosecutions; and f. Could reasonably be expected to endanger the life or physical safety of any individual; 8. Information relating to the supervision of financial institutions; and 9. Geological information on wells. See Freedom of Information Act (FOIA) 2016, 5 U.S.C. § 552(b), available at https://www.foia.gov/foia-statute.html

Chief FOIA Officer, who is responsible for ensuring the agency’s compliance with the FOIA, providing guidance and training to agency staff, and reporting on FOIA performance and improvement.\textsuperscript{1163} For example, the U.S. EPA’s General Counsel is the Chief FOIA Officer.\textsuperscript{1164} The Chief FOIA Officer designates the office that performs the duties of the National FOIA Office, which reports to the Chief FOIA Officer.\textsuperscript{1165} The National FOIA Office centralizes FOIA request submission and processing, and provides monthly FOIA backlog reports to EPA’s senior leadership.\textsuperscript{1166} The Regional Counsel Offices in each of the ten regional offices of the U.S. EPA are responsible for FOIA processing within their respective regions and have clear authority and reporting lines through the Regional Counsels up to the General Counsel of the agency.\textsuperscript{1167}

The U.S. EPA office assigned to process a FOIA request will initiate the search, collection, and review process, and respond to a request within twenty working days of


\textsuperscript{1165} \textit{Id.}

\textsuperscript{1166} \textit{Id.}

\textsuperscript{1167} \textit{Id.}
receiving the request.\textsuperscript{1168} The Chief FOIA Officer or their delegates will decide whether to grant the request for expedited processing within ten calendar days and notify the requester of the decision.\textsuperscript{1169} If the requester is dissatisfied with any adverse determination of their request, the requester may appeal to the National FOIA Office within the EPA and seek judicial review if necessary.\textsuperscript{1170}

In China, government at all levels and the departments of the people’s governments at the county level and above are required to establish and refine systems for open government information work respectively.\textsuperscript{1171} Additionally, they are required to designate an office responsible for the daily management of open government information within their respective administrative agencies.\textsuperscript{1172} Under the Regulations on Open Government Information, administrative organs shall be responsible for disclosing the government information they make.\textsuperscript{1173} Government information is information made or obtained by administrative organs in the course of performing their administrative management functions and recorded and retained in a given form.\textsuperscript{1174} Therefore, program organizers must follow regulations to disclose government-organized VEPs’ information.

\begin{footnotesize}
\begin{enumerate}
\item \textsuperscript{1168} 40 CFR §2.104(a).
\item \textsuperscript{1169} 40 CFR §2.104(f)(4).
\item \textsuperscript{1170} 40 CFR §2.104(j)-(i).
\item \textsuperscript{1171} Zhengfu Xinxi Gongkai Tiaoli (政府信息公开条例) [Regulations of the People’s Republic of China on Open Government Information], adopted at the 165th executive meeting of the State Council on January 17, 2007 and entered into effect on May 1, 2008. Revised on April 3, 2019, and entered into effect on May 19, 2019. Article 4.
\item \textsuperscript{1172} \textit{Id}.
\item \textsuperscript{1173} \textit{Id}. Article 10.
\item \textsuperscript{1174} \textit{Id}. Article 2.
\end{enumerate}
\end{footnotesize}
When disclosing government information, administrative organs should uphold disclosure as the norm and non-disclosure as the exception and abide by the principles of justice, fairness, and convenience to the people.\textsuperscript{1175} Especially, to enable the public to access government information conveniently, administrative organs are required to establish and refine government information disclosure mechanisms and use various means to publish information.\textsuperscript{1176} Meanwhile, administrative organs should disclose government information proactively within twenty business days of the information being formed or modified.\textsuperscript{1177} These requirements prompt governmental agencies that organize VEPs to disclose and update their VEPs’ information timely.

Departments in charge of open government information should supervise and inspect administrative organs’ implementation of open government information, urge rectification or circulate criticism if necessary, and submit handling suggestions to the organs with authority by the law if leaders and directly responsible persons need to be held accountable.\textsuperscript{1178} Besides, citizens, legal persons and other CSOs have the right to supervise administrative organs’ work on open government information and submit criticisms and suggestions.\textsuperscript{1179}

From the above, existing laws in the two countries focus on how to prompt administrative agencies to disclose government information timely and respond to

\textsuperscript{1175} Id. Article 5.
\textsuperscript{1176} Id. Articles 23-25.
\textsuperscript{1177} Id. Article 26.
\textsuperscript{1178} Id. Article 47.
\textsuperscript{1179} Id. Article 9.
disclosure requests efficiently. Noted that transparency not only lies in getting opportunities to be part of program development but also in understanding the information sufficiently to provide constructive feedback. One example is the U.S. EPA’s Voluntary Children’s Chemical Evaluation Program. Upon reviewing the program, the Office of Inspector General found that the U.S. EPA published information submitted by participating companies as it was and “did not translate or synthesize any of the information obtained in the pilot [program] to make it understandable for the public, particularly parents.”\textsuperscript{1180} The public’s lack of understanding of the information hindered their involvement in the Voluntary Children’s Chemical Evaluation Program, despite having the opportunity to participate. Besides, the U.S. EPA did not fully employ its responsibility as the program organizer to include vital chemical substances in the initial program or design specific implementation details for participating companies.\textsuperscript{1181} These reasons resulted in the failure of the Voluntary Children’s Chemical Evaluation Program as an effective children-specific chemical management program.

Currently, neither the U.S. nor China requires the government to ensure that the public understands the government information disclosed. Accordingly, the government generally discloses the information as it is.


\textsuperscript{1181} See \textit{id.} at 6-14.
4.5 What is Needed: From Government-Organized Voluntary Environmental Programs to Future Legislation

Through analyzing the government-organized VEPs in the U.S. and China, the author identifies factors that indicate the likelihood of turning them into legislation in these two countries.

Firstly, the VEP organizer should have the authority to make the program become law. This factor is affected by a jurisdiction's power structure. In China, the national government manages provincial and local governments. If the national government mandates its organized VEP to become law, it is likely for governments at the lower levels to make similar VEPs mandatory within their administrative territories. Due to the power parallel structure in the U.S., VEPs organized by state and local governments are likely to become mandatory compared to those developed by federal agencies. Even if a federal VEP became law, that is only because state or local governments wholly or partially adopted the initiative.

The author finds that some voluntary approaches cater to easing the limitations derived from the U.S. government’s power structure, as summarized in author’s Table 4.1. VEPs developed by state governments using negotiated agreements to collaborate are more likely to become law. Nevertheless, it is not guaranteed that VEPs will evolve to become law by adopting a particular voluntary approach. The format that the program organizer selected to engage with participants can only imply the level of their willingness to participate. Among the three voluntary approaches to engaging program participants, negotiated agreements would require participants to have a strong
willingness and invest significant time to discuss and develop the agreement with the government. It also indicates that the participants are more likely to materialize their commitments listed in the negotiated agreements. By comparison, non-negotiable agreements and application-based statements generally do not require participants to invest significant efforts. VEPs incorporating these two voluntary approaches are often more attractive to targeted groups to join.

<table>
<thead>
<tr>
<th>Type of Voluntary Approach</th>
<th>Type of Government-Organized VEP</th>
<th>Legally Binding?</th>
<th>Related Government-Organized Became Law?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negotiated Agreements</td>
<td>Any</td>
<td>No</td>
<td>China: No.</td>
</tr>
<tr>
<td>(including MoU and Strategic Partnership Agreements)</td>
<td></td>
<td></td>
<td>The U.S.: VEPs established between governments at the same level may become mandatory requirements.</td>
</tr>
<tr>
<td>Non-Negotiable Agreements</td>
<td>Any</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Application-based Statements</td>
<td>Environment Recognition/Standard Programs</td>
<td>N/A</td>
<td>China: Some voluntary standards can be transitioned into mandatory requirements.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The U.S.: No</td>
</tr>
<tr>
<td>Guidance Documents</td>
<td>N/A</td>
<td>N/A</td>
<td>China: Most remain voluntary unless mandatory rules adopt the voluntary guidance. The establishment of pilot programs may follow the issuance of guidance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The U.S.: Voluntary and non-judicial reviewable. State and local governments may adopt all or partial of the federal guidance and thus transition to laws.</td>
</tr>
</tbody>
</table>

Table 4.1: Voluntary Approaches’ Features in the U.S. and China

Second, pilot programs are likely to become legal requirements as a stage of VEP development. In China, if pilot programs are designed to target governments at the provincial level and pollution-intensive companies, such initiatives are likely to turn into
mandatory requirements. In the U.S., pilot programs developed by governments at the state and local levels to explore how to fulfill goals stated in the existing laws are likely to become permanent programs regulated by the government.

Third, the type of program activity may predict the likelihood of a VEP transitioning into law. As analyzed in Chapter 3, VEPs focusing on introducing new standards are more likely to become law. Similar examples are also observed in government-organized VEPs in China. Governmental environmental recognition programs adhere to strict standards, which organizers utilize to amplify positive environmental impact. Program organizers expect awarded organizations to “[play] sound roles of models, leading and speeding up the construction of a resource-saving and environmentally friendly society.”1182 For example, many existing energy standards have been gradually renewed since 2015, including adopting the voluntary “Pace-Setters in Energy Efficiency” standards as mandatory requirements.1183

1182 See Guanyu Shouyu Chongqingshi Bei peiqu Guojia Huanjing Baohu Mofan Chengqu Chenghao de Jueding (关于授予重庆市北碚区国家环境保护模范城区称号的决定) [Decision on conferring the Recognition of National Environmental Protection Model City in Beibei District, Chongqing], issued by the former State Environmental Protection Administration on April 5, 2006, No.51, available at https://www.mee.gov.cn/gkml/zj/wj/200910/t20091022_172389.htm (last visited Jan. 12, 2023).

Fourth, the government-organized VEP has effective performance. Program organizers will likely turn effective VEPs into legal requirements or develop regulations to manage the VEPs specifically. The “effectiveness” is reflected in the spillover effects and direct environmental results if applicable. Based on the discussions in previous sections, the author proposes a checklist that allows internal and external stakeholders to evaluate a government-organized VEP (see Table 4.2). The more listed questions answered “yes,” the more effective the VEP could be.

<table>
<thead>
<tr>
<th>The Government’s Willingness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Department Type</strong></td>
</tr>
<tr>
<td>1. Is the program organized by an environmental protection department?</td>
</tr>
<tr>
<td>2. Does the program organizer hold any specific responsibility in environmental protection?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Department’s Organizational Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The Substantial Content of the Program Design</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Program Goal</strong></td>
</tr>
<tr>
<td>3. Does the program target more than two aspects of an environmental topic?</td>
</tr>
<tr>
<td>4. Does the program target more than two targeted subjects under each aspect?</td>
</tr>
<tr>
<td>5. Does the program have a quantifiable goal?</td>
</tr>
<tr>
<td>6. Does the department advance the goal regularly?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Is the program a voluntary standard (including voluntary recognition)? (if Yes)</td>
</tr>
<tr>
<td>a. Does the department upgrade the standard requirements regularly?</td>
</tr>
<tr>
<td>8. Is the program a donation-based?</td>
</tr>
<tr>
<td>N/A</td>
</tr>
<tr>
<td>9. Is the program a data-compiling and reporting initiative? (if Yes)</td>
</tr>
<tr>
<td>a. Does the program update questions for data collection and reporting?</td>
</tr>
<tr>
<td>b. Does the department develop new topics for data collection and reporting</td>
</tr>
</tbody>
</table>
regularly?

10. Is the program a research and educational initiative? (if Yes)
   a. Are the results generated from the research program free to access and use?
   b. Does the department apply the research results to practice, regardless of working with other organizations or implementing it alone?

_Specific Metrics for Checking in Progress_
11. Does the department monitor the number of participants?
12. Does the program have a mechanism to track participants’ progress regularly?
13. Does the department conduct surveys to track participants’ understanding of the topic regularly?

**Stakeholder Engagement**

_Opportunities for Stakeholders to Participate_
14. Did the department provide opportunities for external stakeholders to design the program?
15. Does the department disclose adequate information about the program for external stakeholders to understand and monitor the program?
16. Does the department systematically collect and review external stakeholders’ feedback during program implementation?
17. Does the department provide opportunities to include external stakeholders during program evaluation?

**The Quality of Information Disclosure**

.Reporting Standard_
18. Has the department used a consistent format to disclose program performance?

.Reporting Frequency_
19. Has the department disclosed the program’s status regularly?

_Verification_
N/A

Note: questions can be added to this framework to collect and confirm more information.
The author further identifies two conditions that could accelerate the transition of government-organized VEPs into future legislation.

1. Facilitating the transition of Pilot Programs into Law

Regulations should be in place to design, implement, and manage pilot programs to ensure effectiveness, as they are more likely to be transitioned into future legislation. Existing laws in the U.S. and China need a clearer position of pilot programs.

Although pilot programs play a significant role in environmental protection in China, they have insufficient legal basis–governmental agencies develop most pilot programs based on political documents instead of law.\textsuperscript{1184} There are no explicit and unified regulations on managing pilot programs–not all pilot programs include key mechanisms such as participant admission, when and how to adjust and terminate a program, and implementable fault tolerance mechanisms.\textsuperscript{1185} This dilemma indicates that existing law lacks a forward-looking pilot system arrangement.\textsuperscript{1186} Furthermore, the central government needs to consider effectively merging pilot programs into the existing

\textsuperscript{1184} See Liu Xiaobing & Ding Bin (刘小冰, 丁宾), Shengtaihuanjing Falvzhidu Shidian de Zuoyongjili, Wentishibie yu Wanshanlujing (生态环境法律制度试点的作用机理、问题识别与完善路径) [On Mechanism, Problem Identification and Improvement Path of Eco-environmental Legal System Pilot], Nanjing Gongye Daxue Xuebao (Shehui Kexueban (南京工业大学学报 (社会科学版))) [J. NANJING TECH U. (SOC. SCI. EDITION)], Vol.6, 2021, 15-24.
\textsuperscript{1185} Id.
\textsuperscript{1186} Id.
legal system and coordinating reviewing and evaluating relevant policies and processes.\textsuperscript{1187}

In the U.S., governmental agencies have commonly used pilot programs at all levels. Some federal agencies regulate pilot programs within their department regulations, such as the Department of Defense\textsuperscript{1188} and the Department of Transportation.\textsuperscript{1189} However, the definition and scope of a pilot program may vary by federal agency. It is difficult to compare pilot programs developed by different government agencies with the same baseline.

Although pilot programs “have been underused tools for informing the development of law and policy,” many pilots are uncontroversial because they do not require the mandatory, selective application of law or policy to the public.\textsuperscript{1190} Courts in the U.S. generally accept pilot programs as a rational way of learning about a policy and value randomization as an adequate, potentially superior way of distributing a benefit or a burden to a population.\textsuperscript{1191} Some scholars think rigorous pilot evaluation is necessary and thus propose a framework for federal agencies to determine in what situations experimentation will be practically feasible and desirable.\textsuperscript{1192} Other scholars and practitioners suggest evaluating pilot programs’ outcomes should be evidence-based so

\textsuperscript{1187} Id.

\textsuperscript{1188} 62 FR 17549, Pilot Program Policy, 1997.


\textsuperscript{1191} Id. at 2334-2335.

\textsuperscript{1192} Id. at 2335-2347.
that (1) a “pilot, test, scale” model can be applied to determine which interventions and strategies work most effectively and scale them up to meet relevant national goals; and (2) the federal budget allocated to each federal agency will be better spent with properly usage of pilot programs. As shown by examples discussed in the previous sections, some pilot programs were terminated once the relevant funding was depleted. Therefore, it is important for governments at all levels to develop and consolidate pilot programs strategically.

The author supports that the national/federal governments in the U.S. and China should establish a set of legal rules and procedures to guide departments to develop and evaluate pilot programs. These rules and procedures can streamline pilot programs’ development and management rather than setting up obstacles for administrative agencies. Meanwhile, the author agrees that a centralized platform for pilot programs is necessary for governments in the U.S. and China. The platform should compile and categorize all the pilot projects developed by different governmental agencies at all levels. The

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platform would help governmental agencies understand each other’s past and present pilot programs, including program design, management, and lessons learned, to improve coordination of resources. The platform would also enable the U.S. and China governments to fulfill their information disclosure obligations and serve as a research data hub for public access.

2. Maximize the Spillover Effect of Government-Organized VEPs

If a government-organized VEP does not become law after a pilot program, it would likely remain voluntary in the long term, as seen in the U.S. and China. The author summarizes key features that government-organized VEP organizers should consider during the design phase to maximize spillover effects.

**Program Goals** Most government-organized VEPs in China and the U.S. focus on one topic (such as GHG reduction, energy efficiency) and concentrate on one targeted subject under the topic. For example, a number of U.S. government-organized VEPs focus on the theme of GHG reduction, and each GHG reduction VEP focuses on one GHG source, including coal mines (the Coalbed Methane Outreach Program), store refrigeration systems (the GreenChill Partnership), dispose of old refrigerated appliances (the Responsible Appliance Disposal Program), facility operations (Natural

1197 U.S. GreenChill Partnership, *see supra* note 1035.
1198 U.S. Responsible Appliance Disposal Program, *see supra* note 1009.
Gas STAR, livestock waste (AgSTAR), and landfills (the Landfill Methane Outreach Program).

It is crucial to set clear goals for government-organized VEPs to allow participants to track progress over time and serve as first-hand data sources for further research, even though knowledge sharing should be the primary evaluation metric instead of direct environmental results. Limiting the number of topics and targeted subjects in a VEP can help establish clear and measurable goals. If the VEP asks participants to develop their own goals (such as some partnership programs in the U.S. and pilot programs in China), the program organizer should ensure these goals are specific and concrete. For programs that cannot establish concrete goals, organizers can monitor the number of participants and survey their understanding of knowledge gaps related to targeted subjects regularly.

**Targeted Groups & Participants** Companies and local governments are the primary targeted groups in most government-organized VEPs in China and the U.S. Program organizers can filter applicants by developing eligible criteria. For example, the U.S. Green Power Partnership requires participants to have a minimum annual electricity

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use of 100,000 kWh to be eligible for the partnership.¹²⁰² This requirement indicates the partnership may target organizations in medium to large size.¹²⁰³

Chinese government-organized VEPs targeted the private sector (especially state-owned companies, pollutant-intensive companies, public companies, and large private entities) generally became mandatory, such as the Clean Production program in China.

Regarding participant selection, China’s national government tends to select cities with relatively more resources to join most pilot programs for VEPs targeted at local governments. Cities with more resources can explore new environmental protection mechanisms, maximize the pilot program’s impact, and increase its success rate, as seen in the low-carbon city pilot program.¹²⁰⁴ Another common selection criterion is the

¹²⁰³ In 2019, the average monthly energy consumption for commercial properties in the United States was 6,066 kilowatt-hours (kWh). That includes a range of business sizes, so the average kWh usage for small businesses will be less. See How Much Energy Do Small Businesses Use? Constellation Energy Resources, LLC (Feb. 22, 2022), https://blog.constellation.com/2020/12/14/small-business-energy-consumption/ (last visited Jan. 9, 2023); Generally speaking, businesses with annual electricity consumption of 100,000 kWh can be classed as a large business. See Jennifer Millet, What is average business energy consumption? Bionic Utility Company (Oct. 25, 2023), https://bionic.co.uk/business-energy/guides/average-energy-usage-for-businesses/ (last visited Jan. 9, 2024).
¹²⁰⁴ See Zhongguo Qihou Bianhua Xinxi Wang Ditan Fazhan (中国气候变化信息网低碳发展) [China Climate Change Info Net-Low Carbon Development], Disanpi Ditanchengshi Shidian 11 yue Gongbu (第三批低碳城市试点 11 月公布) [The third batch of low-carbon city pilot projects will be announced in November] (Oct. 27, 2016), available at http://dtfz.ccchina.org.cn/Detail.aspx?newsId=64271&TId=170%22%20title=%22%E7%
government tends to select applicants with a good environmental protection record, which shows their strong willingness to fulfill program goals and thus can contribute to a VEP's success. Applicants can demonstrate their good record by joining various environmental recognition programs and adopting voluntary standards organized by government and CSOs. For example, China’s clean production and no-waste city pilot programs used this criterion to select their initial program participants.

The U.S. government-organized VEPs target pollutant-intensive sectors as well.1205 Meanwhile, these VEPs aim to attract stakeholders ranging from upstream to downstream within a sector as participants. For example, eligible participants (partners) of the Combined Heat and Power Partnership include attorneys, consultants, end-users, energy service companies, engineering/construction companies, financiers, government agencies, manufacturers/distributors, non-governmental organizations, project developers and utilities.1206 This range of eligible applicants is much broader than similar VEPs in China, covering the sector’s companies, CSOs and individual professionals. Targeting a wide range of targeted groups can fulfill the purpose of education and capacity building, but such programs that have been active for decades generally remain voluntary.

<sup>1205</sup> Brouhle et al., see supra note 46, 16-20.
**Incentives** Government-organized VEPs incorporate incentives to attract targeted groups’ participation. Common incentives include financial and non-financial support. Besides, setting a low threshold for participants to join is deemed a procedural incentive. Many government-organized VEPs require only an application package for approval. Noted VEPs with low thresholds have operated for a long time (many started in the 1990s and are still active) and usually stay voluntary.

Incentive timing is equally important. Scholars found that long-term VEPs focused on rewarding participants upon joining to boost participation rates but should have granted incentives to participants who achieved program goals.\(^{1207}\) Meanwhile, some U.S. partnership programs with more benefits and rewards have lower participation due to demanding membership screening and review.\(^{1208}\) Program organizers should balance standard stringency with incentives for joining and achieving program goals.

**Program Requirements** Government-organized VEPs’ requirements should be transparent and easy to follow. Program requirements should cover all the design elements discussed above and explain the rights and responsibilities of the program organizer and participants.

\(^{1207}\) See Luis Inaraja Vera, *Assessing the Performance of Voluntary Environmental Programs*, Utah L. Rev., Volume 2020, Number 3, Article 5, 795-866.

The program organizer’s typical responsibilities include managing the program, providing guidance and support to participants, and monitoring their performance. To ensure participants fulfill program requirements and track progress, the program organizer may introduce a qualified third party to review and verify participants' performance. Meanwhile, participants are responsible for regularly submitting required information and data, using program materials properly, and following program rules. Some programs may require participants to contribute their expertise to improve the program.
CHAPTER 5

Comparison and Conclusions

No action or voice is too small to make a difference.

— Vanessa Nakate

In the information-based and collaborative era, the convenience of generating and exchanging information has decreased information asymmetry and enabled collaborations between different sectors. In this context, the command-and-control approach is no longer the only answer to environmental governance. Government started making mandatory and voluntary rules. The former sets bottom lines for environmental governance, and the latter aims to encourage targeted audiences to achieve better performance beyond legal requirements. Furthermore, with the development and application of voluntary environmental programs (VEPs), businesses and civil society organizations (CSOs) have established more advanced environmental standards and comprehensive initiatives to tackle various environmental issues.

This thesis filled the absence of systematically reviewing VEPs organized by businesses, CSOs and governments in different societal settings. Based on the discussions in previous chapters, the author finds that VEPs serve as a crucial tool that allows rules to

1209 Vanessa Nakate (1996-) is a Ugandan climate activist.
appear where needed and cultivates consensus among different social actors rather than being imposed. As concluded in Chapters 2, 3 and 4, VEPs have the potential to be transitioned into mandatory law regardless of whether the organizer is from the business, CSO, or government sectors. VEPs often bridge future legislation and enable rule-originators to spread across different social sectors, as shown in the author’s Table 5.1. In some cases, such as the RGGI, adopting voluntary approaches is a solution (if not only) to bring different jurisdictions together to tackle climate mitigation.

Table 5.1 The Relationship between VEPs and Future Legislation

This thesis examines the factors influencing the transition of voluntary actions to legislation for VEPs organized by businesses, CSOs, and governments. The effectiveness of the VEP plays a crucial role. The author proposes a universal framework consisting of four indicators (the willingness of the VEP organizer, the substantial content of VEP design, stakeholder participation and the quality of information disclosure) with each having a few sub-indicators to measure VEPs’ authenticity and effectiveness. The checklist-like framework is flexible to modify and add questions associated with each
aspect. The more questions answered “yes,” the more effective the relevant VEP could be. Also, it enables stakeholders to evaluate the VEP without heavy-lifting data collection, which is often an obstacle in practice. Furthermore, the framework allows VEPs organized by businesses, CSOs and governments from different societal settings to be compared with the same baseline.

Although the U.S. and China represent different political power structures, cultural backgrounds, and ideologies, with applying the proposed framework to examine existing laws in the two countries, both countries share lots of similarities on regulating the indicators and sub-indicators for organizers from different sectors accordingly.

The willingness of the VEP organizer indicator can be reflected in two sub-indicators: the organization’s nature/culture and its organizational structure. Both countries regulate government’s responsibilities and organizational structure in developing VEPs, as well as businesses and CSOs’ organizational structure. It is sometimes challenging to prove that businesses incorporate environmental protection into their corporate nature. The U.S. developed the business category of benefit corporation to filter companies with positive social and environmental impact, even if such results could be driven by moral values, economic performance and(or) stakeholders. Besides, using the environmental right/obligation approach to require all persons and organizations to undertake environmental responsibility is another way to confirm

1210 Some practitioners claim that attracting capital is the primary motivation for businesses to register to become benefit corporations. See Benefit Corporations: What You Need to Know, CULTIVATING CAPITAL, Blog, https://www.cultivatingcapital.com/benefit-corporations/ (last visited Nov. 27, 2023).
organization’s pro-environmental nature in China and some U.S. states. However, this approach would require detail rules accompanied for implementation.

The substantial content of a VEP design indicator includes program design and monitoring. The U.S. and China developed requirements and limits through laws and administrative directives on program design and monitoring for VEPs organized by government and CSOs, respectively. However, existing law posed no specific limitation on CSR initiatives in these regards. It leaves flexibility for businesses to develop their CSR initiatives but also implies each initiative’s accountability could vary. Businesses can use cross-sector partnerships to introduce an external party for program monitoring to increase their initiatives’ effectiveness.

The stakeholder participation indicator is not always required under existing laws in the U.S. and China. Both countries demand internal stakeholder participation in the CSO sector when developing VEPs. CSO organizers introduce external parties’ supervision under the legal requirements of information disclosure. Although government-organized VEPs do not create law that requires stakeholder participation, both countries include external stakeholders’ involvement to various degrees. By comparison, businesses are not obligated to provide opportunities for stakeholder participation regarding their CSR initiatives.

The quality of information disclosure indicator includes three sub-indicators: reporting standard, reporting frequency, and verification requirements. Both CSO- and government-organized VEPs are required to disclose information by following certain
standards and periods under existing law in the U.S. and China. However, similar reporting obligation only applies to the listed companies of the business sector. Accordingly, information transparency increased the credibility of CSO- and government-organized VEPs. Noted that only CSOs’ disclosed information is required to be verified by government, but there is no third-party verification requirement for businesses and government’s disclosed information.

By comparison, CSO-organized VEPs are the most regulated among the three types of VEPs using the same set of indicators as the baseline. Although environmental CSOs’ advocacy activities are more likely to be effective in a more supportive policy context, government intervention and restrictive policy context motivate, rather than suppress environmental NGOs’ advocacy engagement. Theoretically, corporate commitments made through VEPs organized by CSOs would be more credible than those made through the other two types of VEPs.

Meanwhile, the thesis observes and discusses the conversions from CSR initiatives to CSO-organized VEPs. One common pattern noticed by the author regarding converting CSR initiatives to CSO-organized VEPs is that the company may promote its environmental practices and values by establishing a CSO to advocate, such as the relationship between Patagonia and the 1% for the Planet organization explained in Part 3.5.

Noted that VEPs organized by businesses and CSOs reflect the bottom-up approach to influence legislation and government-organized VEPs show the top-down approach to change the society’s behaviours. VEPs developed with the bottom-up approach offer greater flexibility to respond and tackle new challenges, yet corporate initiatives’ scopes could be limited and CSOs may have inadequate resources to scale up the VEPs. Government-organized VEPs may not be as timely established or comprehensive as the other sectors, but their nature and structural processes can be more beneficial to promote relevant concepts and advocate certain practices to a larger crowd and may be more likely to transition the VEPs to laws. However, the government’s negative stance on specific environmental issues may discourage companies’ initiatives to take bottom-up measures.

VEPs’ essence—cooperation—is an important impetus that helps achieve multi-sectoral participation in environmental governance. Because of the flexible conversions between VEPs organized by different social actors and the potential to be transitioned into legislation, the author proposes the following suggestions to avoid some hurdles that could block further collaboration between businesses, CSOs and government. These suggestions should be applicable in all types of societal settings.

First, social actors, particularly governments need to adjust the stereotype of VEPs by repositioning VEPs as a bridge to future legislation instead of a parallel approach to existing law. Government needs to develop bottom-line management principles that unify the process of VEP design, implementation and evaluation that currently vary by department. Meanwhile, to maximize resource efficiency, government
needs to establish a public-access platform that allows governments at all levels to share their previous, existing and pilot programs to be launched and lessons learned from these programs.

Second, governments need to pay attention to value-driven companies’ positive influence. The number of value-driven companies is small, but their innovative and genuine corporate environmental initiatives lay in a firm foundation for the possibility of VEP conversions. Governments should establish an official channel to track the total number and identity of green companies and these companies' influence. In the U.S., many states adopted the benefit corporation status but the statistics of the total number of these entities at the federal level is absent. Also, the federal government stopped compiling and should revive annual statistics of green jobs in the private sector.\textsuperscript{1212} Current Chinese legislation has not recognized benefit corporations.\textsuperscript{1213} Therefore, the

\textsuperscript{1212} At the federal level, the U.S. Department of Labor’s Green Goods and Services used to provide annual statistics of green jobs in the private sector. The program was eliminated due to tight federal budgets. \textit{See Green Goods and Services (GGS)}, U.S. BUREAU OF LABOR STATISTICS OF THE U.S. DEPARTMENT OF LABOR, \url{https://www.bls.gov/ggs/}

\textsuperscript{1213} According to the Company Law in China, the term "company" used in this law refers to a limited liability company or a joint stock company limited set up within the territory of the People's Republic of China. \textit{See supra} note 376, Article 2, Company Law of the People's Republic of China (rev.2023). When registering a company, “market entities” means the following natural persons, legal persons and unincorporated organizations that engage in business activities for profit within the territory of the People's Republic of China, including (1) Companies, non-corporate enterprise legal persons (such as the state-owned companies and collective enterprises) and their branch offices. (2) Sole proprietorship enterprises, partnership enterprises and their branch offices. (3) Specialized farmers' cooperatives (unions) and their branch offices. (4) Individual industrial and commercial households. (5) Branch offices of foreign companies, and (6) Other market entities provided for by laws and administrative regulations. \textit{See Zhonghua
author urges both countries to recognize the uniqueness of companies whose missions and products/services are environmentally friendly and develop ways to track and channel these companies’ impacts.

Third, CSOs can collaborate more to improve environmental awareness, capacity building, and the transition of CSO-organized VEPs to government initiatives. CSOs specializing in environmental issues can educate fellow CSOs and ignite their efforts to create targeted VEPs for broader audiences. For example, the number of Chinese ecological and environmental social groups has been hovering around 6,000, with no significant growth in the past ten years. The number of ecological and environmental private non-enterprise units has declined instead of rising. Existing environmental social organizations have low participation rates in important fields such as environmental policy initiatives, environmental mass incidents and environmental public interest litigations, and even sometimes choose to be "collectively invisible," which is caused by low professionalism—a common problem of social organizations in China.


Ye Tuo (叶托), Huanbao Shehuiuzhi Canyu Huanjingzhili de Zhidu Kongjian yu Xingdong Celue (环保社会组织参与环境治理的制度空间与行动策略) [The institutional space and action strategies for environmental social organizations to participate in environmental governance], Zhongguo Dizhi Daxue Xuebao (Shehui Kexue Ban) (《中国地质大学学报 (社会科学版)》[J. CHINA U. GEOSCIENCES (SOC. SCI. EDITION)]), 18(06), 2018, 50-57.

Id.

Id.
In this circumstance, government certainly has the responsibility to help the CSO sector grow, and certain CSOs that have relevant knowledge and resources, such as bar associations’ environmental law committees, should also step up to offer training and knowledge support to their CSO peers.

Forth, government should create an open platform for matchmaking, allowing businesses, CSOs, and various government levels to find partners for developing cross-sector collaborations in environmental management. The platform should facilitate sharing of past partnership experiences among social actors. Additionally, it should encourage newly formed cross-sector partnerships to regularly update their status. This way, the public can use the platform to track the development and implementation of these collaborations. Government can incentivize participating organizations and exceptional cross-sector partnerships by offering tax credits, rebates and other incentives.

These recommendations enable the business, CSO, and government sectors to efficiently exchange information and resources for cross-sector environmental governance. Ultimately, this will accelerate VEP development and nudge society to embrace eco-friendly behaviours.
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