# CEE 175G/275G China's Environmental and Climate Governance

Spring 2023

**Time**: Tuesdays and Thursdays, 3:00-4:20 pm
**Location**: Turing Auditorium, Room 111

**Professor**: Shiran Victoria Shen
**Email**: svshen@stanford.edu
**Office Hours**: By appointment

## Overview

Over three decades of extraordinary economic development in China came at the tremendous expense of the environment. Despite having one of the world's most comprehensive environmental laws and regulations, China was among the most polluted globally until recent years. The Eighteenth Party Congress in November 2012 was a watershed event in China's environmental and ecological landscape. However, strong central directives to clean the environment and curb carbon emissions have yielded mixed results. From the angle of environmental governance, this course examines how domestic actors and institutions affect policy-making and implementation in China from the late twentieth century until today. It draws upon analytical frameworks from the disciplines of the social sciences to explain policy outputs and outcomes.

## Course Prerequisites

There are no prerequisites, but some background or willingness to learn basic social science research methodology is desirable. This class will interest graduate and advanced undergraduate students curious about environmental politics and governance in China.

## Learning Goals

By the end of the course, students should be able to:
- Describe the central and local actors critical to environmental policymaking and implementation in China.
- Understand the organizational and institutional roots of China's environmental challenges.
- Think critically about environmental issues in China within different analytical frameworks.
- Relate and connect course materials with current events and knowledge from other courses in politics and environmental sciences.

## Course Requirements

*Preparation, Attendance, and Participation – 20%*

- Attendance is mandatory. Each student is allowed up to two unexcused absences. Excused absences can be granted for emergencies (e.g., illness or death in the family), in which case, you should seek permission from the professor **before** class time.
- All students are expected to have read the required readings before class and be ready to engage in discussions.
- At the beginning of each class, I will ask students to report one piece of news related to environmental and climate issues involving China. Please be prepared to apply learning from the lecture to explain or discuss the news.

*Analytical Papers x 2 – 50% (25% each)*
- An analytical paper should achieve the following goals:
  - <u>New knowledge and insights</u>: what things discussed in this class strike you the most? What new knowledge have you acquired that challenge your previous thinking?
  - <u>Appraisal</u>: Synthesize a select number (the exact number is up to you but should be three or more) of readings. Do they complement or contradict each other? What might explain their convergence or divergence?
  - <u>Connection</u>: how do current events connect with what has been discussed and taught in class so far? How do the materials in this class connect with what you have learned in other courses at Stanford and beyond?

  Avoid a Q&A-style paper. A good paper will weave all three pieces together seamlessly and organically.
- 4-6 pages. Double-spaced. Font size 12. 1-inch margin. Typed in WORD documents.
- Label your documents as "LastName_AnalyticalPaperNumber." For instance, "Shen_2" if it is Shen's second analytical paper.
- Email your papers to the professor by the following due dates:
  - The first analytical paper is **due 11:59 pm on Sunday, April 30**.
  - The second analytical paper is **due 11:59 pm on Sunday, May 28**.
- Obviously, you may submit your work before Sunday if that suits your schedule better.
- It is the student's responsibility to submit correct and uncorrupted files. Submitting wrong or corrupted files will result in automatic zeros in grades.

*Final Exam – 30%*
- The final exam will cover an entire semester's materials. As announced in the university schedule, **the final exam will be held on Tuesday, June 13, from 12:15 – 3:15 pm**. Other than documented emergencies (e.g., death in the family), **no exceptions will be made**.

*Meeting with the Professor*
- All students are expected to meet with the professor during office hours at least once during the semester.

**Course Materials**

**NO PURCHASE IS REQUIRED!** All readings can be downloaded from Canvas or accessed via the Stanford Library.

**Copyright Policy**

The syllabus, exams, essay materials, and presentation slides are the intellectual property of the instructor. By U.S. copyright law, the instructor is the exclusive owner of the copyright in those materials she creates. Other course materials, like the readings, are subject to fair use. Please do not post any course materials online (e.g., Course Hero). Of course, you may take notes and make copies of class materials for your own use. You may also share those materials with another student enrolled in this course in the same semester.

**Late Submissions Policy**

Papers submitted late will be penalized by one entire letter grade (e.g., B+ → C+) for every 24 hours they are late unless prior permission is sought from the instructor.

**Regrade Policy**

If you have good reasons to believe a grade is unjustified, please email the professor a one-page memo explaining why. You must **wait at least 72 hours** upon receiving your graded assignment before doing so. Remember that regrading a paper or exam can result in a lower grade if further issues are identified during the reevaluation process.

**Honor Code**

The university takes the Honor Code seriously (consult here: https://communitystandards.stanford.edu/policies-guidance/honor-code). Violations of the honor code will be reported to the Office of Community Standards.

**Academic Accommodations**

Students who may need an academic accommodation based on the impact of a disability should initiate the request with the Office of Accessible Education (OAE). Professional staff will evaluate the request with required documentation, recommend reasonable accommodations, and prepare an Accommodation Letter for faculty dated in the current quarter in which the request is being made. Students should contact the OAE as soon as possible since timely notice is needed to coordinate accommodations. The OAE is at 563 Salvatierra Walk (phone: 723-1066, URL: http://oae.stanford.edu).

**Note on the Readings**

The amount of reading in this class varies from week to week. Some weeks you will only have to read a handful of newspaper articles; in others, we will ask you to read multiple articles from academic journals. With that in mind, you are encouraged to check the reading list further ahead of the night before class to ensure sufficient time to complete the material. Generally, journal articles will take the longest to read thoroughly, while newspaper articles can usually be read fairly quickly.

When it comes to quantitative journal articles, you are encouraged to read them in their entirety. However, it is understood that you will sometimes need to familiarize yourself with the empirical techniques the authors use. If that happens, do not worry—you are not expected to be experts in every statistical technique you encounter. Do not spend too much time spinning your wheels over complicated statistics. Instead, focus on answering the following questions: (1) what question are the authors trying to answer? (2) What do the authors hypothesize the answer to be? (3) What reasons do the authors have for proposing this hypothesis? (4) Do the analyses the authors perform support their hypotheses? (5) What are the implications of the outcome for our understanding of environmental politics and governance and how the Chinese political system works?

Since this is a social sciences-oriented course taught in an engineering department, I have included guiding questions to aid your reading.

**Course Structure and Important Dates**

| Date | Topic |
| --- | --- |
| Tuesday, 4/4 | Introduction, Course Overview, and Brief Background on Chinese Politics |
| Thursday, 4/6 | Actors, Interests, and Political Organization |
| Tuesday, 4/11 | Bargaining and Lobbying |
| Thursday, 4/13 | Experimentation |
| Tuesday, 4/18 | Pluralization in Policy Making and Implementation |
| Thursday, 4/20 | The Principal-Agent Framework and Central-Local Relations |
| Tuesday, 4/25 | Incentives |
| Thursday, 4/27 | Constraints |
| Sunday, 4/30 | First Analytical Paper DUE |
| Tuesday, 5/2 | Ambiguities and Distortions |
| Thursday, 5/4 | First Reflection and Discussion |
| Tuesday, 5/9 | Bureaucratic and Administrative Behavior |
| Thursday, 5/11 | Culture, Historical Legacy, and Style |
| Tuesday, 5/16 | Agent Control |
| Thursday, 5/18 | New Environmental Priorities and the Pivot to Climate Mitigation |
| Tuesday, 5/23 | New Challenges in Climate Mitigation and the Rise of Climate Adaptation |
| Thursday, 5/25 | Information Disclosure: Logic, Opportunities, and Challenges |
| Sunday, 5/28 | Second Analytical Paper DUE |
| Tuesday, 5/30 | Tradeoffs and Social Costs |
| Thursday, 6/1 | Second Reflection and Discussion |
| Tuesday, 6/6 | Final Review and Preparation for Final Exam |
| Tuesday, 6/13 | Final Exam |

**Lecture 1 (4/4) Introduction, Course Overview, and Brief Background on Chinese Politics**

No required readings.

Suggested readings:
- For brief information about the development of Chinese politics, read Rana Mitter's book, *Modern China: A Very Short Introduction* (Oxford University Press). URL: https://searchworks.stanford.edu/articles/nlebk__230971.
- For an outline of central structures, read Susan Lawrence, *China's Political Institutions in Charts,* Congressional Research Service R43303 (November 12, 2013). URL: https://fas.org/sgp/crs/row/R43303.pdf.
- For a good collection of brief current articles, read Sebastian Heilmann and Mattias Stepan, eds., *China's Core Executive: Leadership Styles, Structures and Processes Under Xi Jinping* (Mercator Institute of Chinese Studies (MERICS), no. 1, June 2016. URL: https://www.merics.org/sites/default/files/2017-09/MPOC_ChinasCoreExecutive.pdf.

**Lecture 2 (4/6) Actors, Interests, and Political Organization**
*Questions to think about while reading:*
- *Which factors were responsible for the environmental crisis in China?  How does the country's political organization play a role in causing that crisis?*
- *Who are the main central and local actors?  What are their respective interests?  What does "one agent, two/multiple principals" refer to?*
- *What is fragmented authoritarianism?  What are its characteristics and policy consequences?*
- *[Optional] What is authoritarian environmentalism?  What are its shortcomings in explaining environmental policies in China?*

Required readings:
- Ma, Xiaoying, and Leonardo Ortolano. *Environmental Regulation in China: Institutions, Enforcement, and Compliance* (Lanham, MD: Rowman & Littlefield, 2000), Chapter 2-4, 13-76. Canvas.
- Lieberthal. Kenneth G. "Introduction: The Fragmented Authoritarianism Model and Its Limitations," in Kenneth G. Lieberthal and David M. Lampton eds., *Bureaucracy, Politics, and Decision Making in Post-Mao China* (Berkeley, CA: University of California Press, 1992), Chapter 1, pp. 1-30. Canvas.

Optional reading:
- Gilley, Bruce. "Authoritarian Environmentalism and China's Response to Climate Change." *Environmental Politics* 21, no. 2 (2012): 287-307. Canvas.

**Lecture 3 (4/11) Bargaining and Lobbying**
*Questions to think about while reading:*
- *What is bargaining?  What is lobbying?  How do they happen in China's political system?*
- *Identify instances of bargaining or lobbying from the Lampton and Li & Zhan readings.*
  - *Who were the actors?*

- ▪ *What were their respective interests?*
- ▪ *What did they bargain or lobby over?*
- ▪ *What was the consensus or outcome?*
- ▪ *Who gained and who lost (if anyone lost)?*

Required readings:
- Lampton, David. "Chinese Politics: The Bargaining Treadmill," *Issues and Studies* 23, no. 1 (1987): 11-41. Canvas.
- Li, Jun, and Jing Vivian Zhan. "Environmental Clientelism: How Chinese Private Enterprises Lobby under Environmental Crackdowns." *The China Quarterly* First View (2023): 1-18. Canvas.

## Lecture 4 (4/13) Experimentation
*Questions to think about while reading:*
- *What is decentralized experimentation?  What assumptions does it make?*
- *What are the challenges of using experimentation to achieve policy goals and learning effectively?*

Required readings:
- Heilmann, Sebastian. "From Local Experiments to National Policy: The Origins of China's Distinctive Policy Process." *The China Journal*, no.59 (2008): 1-30. Canvas.
- Liu, Jianqiang. "Low-carbon claims by Chinese cities are misleading, says energy expert." *The Guardian*. November 4, 2010. URL: https://www.theguardian.com/environment/2010/nov/04/china-low-carbon-cities-misleading.
- Li, Jing. "Is China's 'city of the future' a replicable model?" *China Dialogue*. June 29, 2018. URL: https://chinadialogue.net/en/cities/10704-is-china-s-city-of-the-future-a-replicable-model/.

## Lecture 5 (4/18) Pluralization in Policy Making and Implementation
*Questions to think about while reading:*
- *What is the "political pluralization" that Mertha refers to?  Is it equivalent to democratization?  Why or why not?*
- *What is the role of the public in policy-making and implementation?  How has that evolved over time?*

Required readings:
- Mertha, Andrew. *China's Water Warriors: Citizen Action and Policy Change.* 2nd ed. (Ithaca, NY: Cornell University Press, 2010), Chapters 1, 2, & 6, pp. 1-64 and pp. 150-162. Canvas.
- Buntaine, Mark, Michael Greenstone, Guojun He, Mengdi Liu, Shaoda Wang, and Bing Zhang. "Does the Squeaky Wheel Get More Grease? The Direct and Indirect Effects of Citizen Participation on Environmental Governance in China." 2022. NBER working paper. Canvas.

Suggested reading:

- ▪ *China's Water Warriors: Citizen Action and Policy Change*. 2nd ed. (Ithaca, NY: Cornell University Press, 2010). The entire book. URL: https://searchworks.stanford.edu/view/13073289.

## Lecture 6 (4/20) The Principal-Agent Framework and Central-Local Relations
*Questions to think about while reading:*
- *What is the principal-agent problem (i.e., agency dilemma)? What are its assumptions? What are the two major solutions to the agency dilemma?*
- *How is environmental policy implementation in China a classic principal-agent problem? Do you think that is the case elsewhere, too?*

Required readings:
- Shepsle, Kenneth A. "Bureaucracy and Intergovernmental Relations," *in Analyzing Politics: Rationality, Behavior, and Institutions* (New York: W.W. Norton 2010), Chapter 13, pp. 345-379. Canvas.
- Jahiel, Abigail R. "The Contradictory Impact of Reform on Environmental Protection in China." *The China Quarterly*, no.149 (1997): 81-103. Canvas.
- Van Rooij, Benjamin. "Organization and Procedure in Environmental Law Enforcement: Sichuan in Comparative Perspective." *China Information* 17, no.2 (2003): 36-64. Canvas.

## Lecture 7 (4/25) Incentives
*Questions to think about while reading:*
- *How do political incentives shape political behavior in the environmental realm in China?*
- *What is the difference between a developmental state and an image-building state?*
- *Why are certain policies prioritized over others? Think in terms of how their timeability, attributability, measurability, and policy importance align with the incentive structure of the local leaders.*

Required readings:
- Shen, Shiran Victoria. *The Political Regulation Wave: A Case of How Local Incentives Systematically Shape Air Quality in China* (Cambridge and New York: Cambridge University Press, 2022), Chapters 1-3, pp. 1-48. URL: https://www.cambridge.org/core/books/political-regulation-wave/33807471BE265E8D5C3108AA3B3E2881.
- Cai, Yongshun. "Irresponsible State: Local Cadres and Image-Building in China." *Journal of Communist Studies and Transition Politics* 20, no.4 (2004): 20-41. Canvas.

## Lecture 8 (4/27) Constraints
*Questions to think about while reading:*
- *What are the different types of constraints in policy implementation?*

Required readings:
- Wang, Alex L. "The Search for Sustainable Legitimacy: Environmental Law and Bureaucracy in China." *Harvard Environmental Law Review* 37 (2013): 365-440.*
  * Read pp. 416-429 closely. Can skim the rest. Canvas.

- Schwartz, Jonathan. "The Impact of State Capacity on Enforcement of Environmental Policies: The Case of China." *Journal of Environment & Development* 12, no.1 (2003): 50-81. Canvas.

## Lecture 9 (5/2) Ambiguities and Distortions
*Questions to think about while reading:*
- *What is the difference between the ambiguity of goal and the ambiguity of means?  Give examples of environmental policy in China that fall under the two categories.*
- *What is the relationship between ambiguity and information distortion?*

Required readings:
- Shen, Shiran Victoria. *The Political Regulation Wave: A Case of How Local Incentives Systematically Shape Air Quality in China* (Cambridge and New York: Cambridge University Press, 2022), Chapters 4-5, pp. 49-79. URL: https://www.cambridge.org/core/books/political-regulation-wave/33807471BE265E8D5C3108AA3B3E2881.
- Andrews, Steven. 2008. "Inconsistencies in air quality metrics: 'Blue Sky' days and $PM_{10}$ concentrations in Beijing." *Environmental Research Letters* 3 (3): 034009. Canvas.
- Zhou, Tailai and Rongde Li. Court Papers Reveal How Officials Faked Xi'an Air Pollution Readings. *Caixin Global*. January 29, 2018. Canvas.

## Lecture 10 (5/4) First Reflection and Discussion

## Lecture 11 (5/9) Bureaucratic and Administrative Behavior
*Questions to think about while reading:*
- *What are the attributes of the bureaucratic behavior "muddling through"?*
- *Is incentive design alone enough when other bureaucratic logics (e.g., meeting targets, maintaining coalitions) compete for attention?*
- *Relating to previous readings, how do politics shape bureaucratic and administrative behaviors?*

Required readings:
- Lindblom, Charles E. 1959. "The Science of "Muddling Through"." *Public Administration Review* 19 (2): 79-88. Canvas.
- Zhou, Xueguang, Hong Lian, Leonard Ortolano, and Yinyu Ye. 2013. "A Behavioral Model of "Muddling Through" in the Chinese Bureaucracy: The Case of Environmental Protection." *The China Journal* 70: 120–147. Canvas.

## Lecture 12 (5/11) Culture, Historical Legacy, and Style

Required readings:
- Ma, Xiaoying, and Leonard Ortolano. 2000. *Environmental Regulation in China: Institutions, Enforcement, and Compliance* (Lanham, MD: Rowman & Littlefield), Chapter 5, pp. 77-95. Canvas.

- Liu, Nicole Ning, Carlos Wing-Hung Lo, Xueyong Zhan, and Wei Wang. 2014. "Campaign-Style Enforcement and Regulatory Compliance." *Public Administration Review* 75 (1): 85-95. Canvas.

## Lecture 13 (5/16) Agent Control
*Questions to think about while reading:*
- *What are the two major theoretical ways to solve the agency dilemma?*
- *Has police patrol in the form of top-down campaigns worked well in improving environmental outcomes in China?*

Required readings:
- McCubbins, Mathew D., and Thomas Schwartz. 1984. "Congressional Oversight Overlooked: Police Patrols versus Fire Alarms." *American Journal of Political Science* 28 (1): 165–79. Canvas.
- Shen, Shiran Victoria, Qi Wang, and Bing Zhang. "When Institutions Need Campaigns for Effective Governance." Working paper. Canvas.

## Lecture 14 (5/18) New Environmental Priorities and the Pivot to Climate Mitigation
*Questions to think about while reading:*
- *How do the guidelines for the construction of ecological civilization map to essential themes in political science and economics?*
- *Why did China start caring about combatting climate change when that seemed to be pitted against its strong interest in economic development?*
- *How are climate policies made and implemented in China?*
- *Why did (some) localities in China become interested in taking action on climate mitigation?*

Required readings:
- "The Decision on Major Issues Concerning Comprehensively Deepening Reforms." Read the portion on "Ecological Civilization." http://dowbor.org/blog/wp-content/uploads/2014/04/The-Decision-on-Major-Issues-Concerning-Comprehensively-Deepening-Reforms-in-brief-China.org_.pdf.
- Qi, Ye, and Wu, Tong. "The politics of climate change in China." *WIREs Climate Change* 4 (2013): 301-313. Canvas.

Optional reading:
- Liu, Jianqiang (2021). "Analysis: Nine key moments that changed China's mind about climate change." *Carbon Brief*. URL: https://www.carbonbrief.org/analysis-nine-key-moments-that-changed-chinas-mind-about-climate-change/.

## Lecture 15 (5/23) New Challenges in Climate Mitigation and the Rise of Climate Adaptation
*Questions to think about while reading:*
- *What are the opportunities and challenges for China to further decarbonize its economy? What are the political and institutional constraints?*

- *What has been done in China to adapt to the consequences of climate change?*
- *Why did (some) localities in China become interested in taking action on climate adaptation?*
- *What are the political and institutional constraints for climate adaptation?*

Required readings:
- Shen, Shiran Victoria. "Local Actions Central to Achieving Carbon-Neutrality Goal in China." *FifteenEightyFour*. October 8, 2021.
  URL: https://www.cambridgeblog.org/2021/10/local-actions-central-to-achieving-carbon-neutrality-goal-in-china/.
- Shen, Shiran Victoria. *Accelerating Decarbonization in China and the United States and Promoting Bilateral Collaboration on Climate Change*. Stanford, CA (2021): Precourt Institute for Energy. https://energy.stanford.edu/sites/g/files/sbiybj9971/f/us-china_roundtable_report.pdf. Read the executive summary (pg. 1-2).
- Ministry of Ecology and Environment of the People's Republic of China (2022). *National Strategy on Climate Adaptation 2035*. Skim. Canvas.

Recommended reading:
- The rest of the report.
- Shen, Shiran Victoria, Bruce Cain, and Iris Hui. "Public Receptivity in China towards Wind Energy Generators: A Survey Experimental Approach." *Energy Policy*, no. 129 (2019): 619–27. Canvas.

## Lecture 16 (5/25) Information Disclosure: Logic, Opportunities, and Challenges
*Questions to think about while reading:*
- *Why disclose environmental information?  What is strategic disclosure?*
- *What are some challenges to environmental information disclosure?*

Required readings:
- Lorentzen, Peter, Pierre Landry, and John Yasuda. "Undermining Authoritarian Innovation: The Power of China's Industrial Giants." *The Journal of Politics* 76, no. 1 (2014): 182-194. Canvas.
- Anderson, Sarah, Mark Buntaine, Mengdi Liu, and Bing Zhang. "Non-Governmental Monitoring of Local Governments Increases Compliance with Central Mandates: A National-Scale Field Experiment in China." *American Journal of Political Science* 63, no. 3 (2019): 626-643. Canvas.

## Lecture 17 (5/30) Tradeoffs and Social Costs
*Questions to think about while reading:*
- *Why is the consideration of social costs important for public policy?  Along what dimensions can we conceptualize social costs?*
- *Can well-intended public policies have unintended negative consequences?*
- *Economist and social theorist Thomas Sowell once said, "There are no solutions.  There are only trade-offs."  Do you agree or disagree?  Why?*

Required readings:
- Coase, Ronald, H. 1960. "The Problem of Social Cost," *Journal of Law and Economics* 3: 41-44. Canvas.
- Shen, Shiran Victoria. *The Political Regulation Wave: A Case of How Local Incentives Systematically Shape Air Quality in China* (Cambridge and New York: Cambridge University Press, 2022), Chapters 6-7, pp. 80-112. URL: https://www.cambridge.org/core/books/political-regulation-wave/33807471BE265E8D5C3108AA3B3E2881.

**Lecture 18 (6/1) Second Reflection and Discussion**

**Lecture 19 (6/6) Final Review and Preparation for Final Exam**