FROM THE COAL MONSTER TO THE GREEN GIANT:
HOW LEADERS’ PERCEPTIONS CHANGED CHINA’S CLIMATE DIPLOMACY

by

Chang Pan

B.A., Renmin University of China, 2016

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

in
THE FACULTY OF GRADUATE AND POSTDOCTORAL STUDIES

(Political Science)

THE UNIVERSITY OF BRITISH COLUMBIA

(Vancouver)

July 2018

© Chang Pan, 2018
The following individuals certify that they have read, and recommend to the Faculty of Graduate and Postdoctoral Studies for acceptance, the dissertation entitled: *From the Coal Monster to the Green Giant: How Leaders’ Perceptions Changed China’s Climate Diplomacy*

submitted by Chang Pan

in partial fulfillment of the requirements for

the degree of Masters of Arts

in Political Science

Examiner Committee:

Peter Dauvergne

Supervisor

Yves Tiberghien

Supervisory Committee Member
Abstract

Compared to China’s tough position in 2009, China’s cooperative stance at the 2015 Paris Climate Conference has been celebrated by the international community as a radical shift in China’s climate diplomacy. In contrast, this paper argues that although China has become proactive in its climate diplomacy, its stance on climate mitigation has been consistently conservative. I argue that the change in elites’ perception of sustainable development has driven China to become more cooperative but the national interest still limits its ambition in its international climate commitment. I employ process tracing to reveal that the ideational source of this perception shift is the incorporation of the climate protection norm advocated by domestic political leaders. The disaggregation of China’s climate policy into a domestic and international dimension attempts to challenge the theoretical divide between the rationalist and social constructivist approach to China’s climate policy. The finding of this paper bridges the gap in understanding China’s climate politics, contributes to theory building in climate diplomacy, and advances the debate between the rational choice theory and social constructivism.
Lay Summary

China was a spoiler at the 2009 Copenhagen Climate Conference but became a key contributor at the 2015 Paris Climate Conference. Thus, is the Paris Climate Conference a radical shift in China’s climate diplomacy? If not, when was the turning point? What is the most important factor that has led to such shift? This paper takes a look at China’s domestic and international climate politics and argues that China’s climate diplomacy became more active because leaders began to integrate low-carbon economy and green economy into the definition of the concept “sustainable development”. This ideational shift resulted from the absorption of the climate protection principle into a new domestic ideology. However, China’s continuing prioritization of its national interests makes its international climate commitments more conservative compared to its rhetorical discourse and diplomatic posture.
Preface

This thesis is original, unpublished, independent work by the author, Chang Pan.
# Table of Contents

Abstract ............................................................................................................................................... ii

Lay Summary ...................................................................................................................................... iv

Preface ................................................................................................................................................ v

Table of Contents .............................................................................................................................. vi

List of Figures ..................................................................................................................................... viii

List of Abbreviations ....................................................................................................................... ix

Acknowledgements .......................................................................................................................... x

Dedication .......................................................................................................................................... xi

Section 1 Introduction ..................................................................................................................... 1
  1.1 Background ................................................................................................................................. 1
  1.2 Hypothesis ................................................................................................................................... 4

Section 2 Literature Review ........................................................................................................... 6

Section 3 Theoretical Framework .................................................................................................. 10
  3.1 Climate Politics as a Two-Level Game ....................................................................................... 10
  3.2 Interplay between Ideas and Interests in Climate Diplomacy .................................................. 11
  3.3 Ideational Source of Leaders’ Perception Shift ......................................................................... 13

Section 4 Methodology .................................................................................................................. 15
  4.1 Process-Tracing Method ............................................................................................................ 15
  4.2 Process-Tracing Test on Ideational Theories ............................................................................. 16
Section 5 Empirical Evidence ........................................................................................................ 21

5.1 China’s Climate Politics from 2002 to 2006 ........................................................................ 21
5.2 China’s Climate Politics from 2007 to 2012 ........................................................................ 24
  5.2.1 Incorporate the Climate Protection Norm ................................................................. 24
  5.2.2 Shift the Perception of Sustainable Development ..................................................... 24
  5.2.3 Accelerate the Interaction between Climate Mitigation and Economic Transformations
  ……………………………………………………………………………………………………………………. 26
  5.2.4 Expand the Bilateral Cooperation on Climate Change ................................................. 29
  5.2.5 Enhance but under Promise International Climate Commitments .............................. 30
5.3 China’s Climate Politics from 2012 to 2015 ...................................................................... 33
  5.3.1 Incorporate the Climate Protection Norm ................................................................. 33
  5.3.2 Shift the Perception of Sustainable Development ..................................................... 35
  5.3.3 Accelerate the Interaction between Climate Mitigation and Economic Transformations
  ……………………………………………………………………………………………………………………. 37
  5.3.4 Expand the Bilateral Cooperation on Climate Change ................................................. 41
  5.3.5 Enhance but under Promise International Climate Commitments .............................. 43

Section 6 Alternative Explanations ............................................................................................. 46

Section 7 Conclusion and Recommendations .......................................................................... 49

Bibliography ............................................................................................................................. 51

Appendix A: Summary of Within-Case Covariation Tests ...................................................... 58

Appendix B: Carbon Intensity Reduction Quota for Areas in the 12th FYP ........................... 59
List of Figures

Figure 1  Process-Tracing Chart with Causal Process Observations.................................20
**List of Abbreviations**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBDR</td>
<td>Common but Differentiated Responsibility</td>
</tr>
<tr>
<td>CO₂</td>
<td>Carbon Dioxide</td>
</tr>
<tr>
<td>COP</td>
<td>Conference of the Parties</td>
</tr>
<tr>
<td>CPC</td>
<td>Communist Party of China</td>
</tr>
<tr>
<td>CPPCC</td>
<td>Chinese People's Political Consultative Conference</td>
</tr>
<tr>
<td>FYP</td>
<td>Five-Year-Plan</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross domestic Product</td>
</tr>
<tr>
<td>GHG</td>
<td>Greenhouse Gas</td>
</tr>
<tr>
<td>HFCs</td>
<td>Hydrofluorocarbons</td>
</tr>
<tr>
<td>NDCs</td>
<td>National Determined Contributions</td>
</tr>
<tr>
<td>NDRC</td>
<td>National Development and Reform Commission</td>
</tr>
<tr>
<td>PSC</td>
<td>Politburo Standing Committee</td>
</tr>
<tr>
<td>SEIs</td>
<td>Strategic Emerging Industries</td>
</tr>
<tr>
<td>UNFCCC</td>
<td>United Nations Framework Convention on Climate Change</td>
</tr>
</tbody>
</table>
Acknowledgements

First and foremost, I would like to sincerely thank my supervisor, Prof. Peter Dauvergne, for his patient guidance, inspirations, and encouragement when I worked on my thesis.

Also, thank you to Prof. Yves Tiberghien for providing me with first-hand evidence in support of my argument and offering me new insights into China’s climate diplomacy. I also must express my gratitude to other faculty and staff in the Political Science Department at UBC.

Finally, I owe particular thanks to my fellow students in this program for their comments and advice on my draft.
Dedication

To Kayou
Section 1 Introduction

1.1 Background

In December 2015, the Paris Climate Conference (COP 21) witnessed a turning point in the international effort to combat climate change after decades of unsuccessful attempts. The result of two-week negotiations, the Paris Agreement, is the world’s first universal global climate deal after years of gridlock, which “charts a new course in the global climate effort.”¹ Such success can be partly attributed to China’s cooperative stance before and during the Paris Climate Conference.

Even when the United States announced its intention to withdraw from the Paris Agreement, China kept reiterating its commitment to combat climate change. On January 18, 2017, in his keynote speech at the United Nations Office in Geneva, President Xi, reaffirmed China’s commitment that “the Paris agreement is a milestone in the history of climate governance. We must ensure this endeavor is not derailed…. China will continue to take steps to tackle climate change and fully honor its obligations.”² Premier Li Keqiang also pointed out in his meeting with Prime Minister of Fiji, Josaia Voreqe Bainimarama, that China “holds a responsible attitude to participate in the international community’s efforts in jointly coping with climate change and actively implementing the Paris Agreement on Climate Change.”³

Moreover, China has demonstrated its ambition to take on the role of leadership in global climate governance since 2015. The year 2016 witnessed increasing signs of China taking more international responsibility. China announced it would add US$3 billion to its South-South Climate Cooperation Fund to help other developing countries address climate change.\(^4\) Besides, China has initiated a “10-100-1000 Programme” for the global South since 2016, which aims to “build up 10 low-carbon pilot zones, launch 100 climate change mitigation and adaptation projects, and offer training programs for 1,000 climate-related professionals.”\(^5\) In October 2017 at the 19th National Congress of the Communist Party of China, President Xi made a public statement about China’s future role in the global climate regime that “[t]aking a driving seat in international cooperation to respond to climate change, China has become an important participant, contributor, and torchbearer in the global endeavor for ecological civilization.”\(^6\) Besides, at this meeting, President Xi stated that “China has become an important participant, contributor, and torch-bearer in the global endeavor for ecological civilization.”\(^7\)

China’s stance on the Paris Agreement and its ambition to become a global climate leader form a stark contrast with its “rigid position in COP 15 at Copenhagen.”\(^8\) At the Copenhagen Climate Conference in 2009, China insisted on removing a target including “a 2020 peaking year

---


\(^7\) Ibid.

in global emissions” and an 80% GHG emissions cut by 2050 for industrialized countries, which led to the failure of the Copenhagen Deal.\(^9\) Also, in the same year, in his interview with the Financial Times, Premier Wen emphasized China’s unwillingness to accept “quantified emission reduction quotas to reduce emissions” due to its “early stage of development.”\(^10\) Yves Tiberghien summarizes China’s shifting images in international climate negotiations, arguing that “China went from being essentially a bystander strictly insisting on the ‘common but differentiated responsibility’ principle in the Kyoto Protocol and an apparent spoiler at the Copenhagen climate summit in 2009 to the critical player that made the Paris Agreement possible in 2015.”\(^11\) The contrast between China’s stance in 2009 and 2015 at the climate conference seems to suggest that China has made a radical shift in its climate diplomacy.

However, under President Hu’s leadership (2002-2012), in December 2009, before COP 15, China for the first time announced its voluntary commitment of cutting CO\(_2\) intensity by 40-45% compared to 2005 and of increasing the share of non-fossil energy in primary energy mix from 6.8% to 15% in 2020.\(^12\) Some scholars recognize that this voluntary commitment is not “business-as-usual” considering the challenges China would face to reach this target.\(^13\) Thus, if COP 21 is regarded as a shift in China’s climate diplomacy, this would obscure proactive changes in climate commitments under President Hu’s leadership. Also, China accepted a cap on

---


11 Tiberghien, 103.


its carbon emissions at the end of its 12th Five-Year-Plan period (2011-2015). We cannot rule out the possibility that the climate mitigation progress under the 12th Five-Year-Plan drafted under President Hu’s office offered Chinese leaders confidence to accept more proactive climate diplomacy in 2015.

With a close examination of China’s domestic and foreign climate policy under both President Hu and President Xi’s leadership, this paper argues that China’s climate diplomacy began to shift under President Hu’s office; China’s climate commitment at the Paris Climate Conference is not a radical departure from its previous stance despite its increasingly proactive diplomatic posture and rhetoric. To support this argument, it is imperative to find out the decisive factor that has determined the features of China’s climate diplomacy. Thus, the central question this paper attempts to answer is: what is the most important factor in shaping China’s climate diplomacy?

1.2 Hypothesis

Studying the factors behind China’s climate diplomacy requires investigating of the role of political elites given that China is a one-party authoritarian regime. The state acts as an independent actor and plays such a significant role in climate policy formulation compared to social groups in democracies that many scholars describe China’s environmentalism as “authoritarian environmentalism.”

Drawing on Chinese-language source official documents, such as the domestic talks and speeches of presidents and premiers from 2002 to 2015, the collective study session of the

---

Political Bureau of the CPC Central Committee, the Government Work Report, and policies on climate change, energy reforms, and industrial restructuring issued by the State Council and the National Development and Reform Commission of the People’s Republic of China (NDRC), this paper argues that Chinese political leaders’ changing perceptions of sustainable development has led to increasingly proactive climate diplomacy but the rationalist thinking still limits the ambition of China’s foreign climate policy; the ideational source of such conceptual shift is the incorporation of the climate protection norm into domestic norms advocated under different political elites.

To be clear, this paper aims to examine the deciding factor which has shaped the climate policy preference of political elites during the period from 2007 to 2015 by identifying leaders’ conceptual framework and its ideational origin. This paper does not intend to explain the final climate mitigation results in China since non-ideational factors and international factors also contribute to this outcome. Also, specifying how and why the localization of the climate protection norm happened is beyond the scope of this paper.

The remainder of the paper is divided into six sections. The first section reviews the literature on China’s climate diplomacy. The second section introduces the theoretical framework for the proposed hypothesis. The third section outlines the process-tracing method on ideational theories. The fourth section offers causal process observations in the case of China’s climate diplomacy under President Hu and Xi’s office. The fifth section examines alternative hypotheses. The sixth section summarizes the main argument and discusses the implications of the findings.
Section 2 Literature Review

Previous scholars have offered several explanations for China’s climate foreign policy, yet the dichotomy between the rational choice theory and social constructivism is prevalent. Existing literature tends to take either the rationalist or the social constructivist approach, which leaves gaps in understanding China’s climate policy.

Some scholars believe the rationalist model has dominated China’s climate diplomacy despite its support for the Paris Agreement. One rationalist interpretation is that China’s support for the Paris Agreement is still “business as usual” due to the institutional flexibility of the Paris Agreement. In the absence of the regulatory mechanism, National Determined Contributions (NDCs) under the Paris Agreement enables China to gain moral capital without actually cutting carbon emission.\(^{15}\) However, this stream of literature underestimates China’s climate change mitigation achievements before and after the Paris Agreement. From 2014 to 2016, the CO\(_2\) emissions in China has been in decline for three years in a row.\(^{16}\) Although in 2017 “China registered a 1.7% increase in CO\(_2\) emissions”, “it was just 1% above the 2014 level.”\(^{17}\)

Another rationalist interpretation acknowledges China’s effective climate mitigation but casts doubt on China’s genuine climate commitments, arguing mitigations are the co-benefits of its domestic energy and industrial reforms.\(^{18}\) Heggelund et al. argue that China’s economic interest fosters its ambition to promote energy efficiency and conservation and may lead to more


\(^{16}\) Tiberghien, 105.

\(^{17}\) Ibid.

effective greenhouse gas emission reductions.\(^{19}\) Bain asserts that developing green technology would offer China tremendous economic advantages.\(^{20}\) Similarly, Tiberghien argues that the Chinese climate strategy together with its domestic Five-Year-Plan is “a key driver” for China’s industrial, energy, and technology reforms.\(^{21}\) However, this branch of literature tends to focus on the analysis of the climate mitigation outcomes by revealing China’s ulterior motive. However, the causal mechanism between material motivations and the climate policy choice remains murky; what this leaves unexplained is factors that have shaped China’s climate domestic and foreign policy preferences.

Within the social constructivism camp, different understandings of China’s shift in climate diplomacy lead to support for different factors. Belis argues that China’s shift in climate diplomacy occurred before the Copenhagen Climate Conference due to the socialization via the Clean Development Mechanism.\(^{22}\) However, this interpretation fails to explain why China vetoed the Copenhagen Deal when faced with tremendous criticism from the Small Island Countries and industrialized countries.

Another branch within social constructivist analysis recognizes that COP 21 is a turning point in China’s climate diplomacy after China’s embarrassing experience at COP 15 in Copenhagen, pointing out the connection between climate change with soft power and the new


\(^{21}\) Tiberghien, 106.

international image,23 and leadership in global governance promoted by President Xi.24 Departing from the traditional diplomatic strategy “hiding brightness, nourishing obscurity” which focused on domestic economic development rather than international reputations, Xi has proposed “great-power diplomacy with Chinese characteristics” aimed to enhance the country’s soft power. Previously, China’s attempt to enhance soft power was considered unsuccessful, despite US$10 billion in investments per year on soft power.25 However, climate change offers China a valuable opportunity to pursue its soft power. Li summarizes such non-materials gains as “social rewards” and describes these as one of the micro-processes of socialization, which can drive China to replace “instrumental calculations” and ultimately lead to its participation in international institutions.26 This stream of literature assumes that China’s acceptance of international environmental norms does not derive from its identity change but from the non-material effects of its participation in the international environmental regime. Checkel names this as Type 1 socialization when an agent acquires “the knowledge that enables them to act in accordance with expectations – irrespective of whether they like the role or agree with it.”27 This theory can explain China’s motive to take the lead and fill the climate leadership void created by the U.S. since it can achieve status maximization as social rewards and gain “recognition and

23 Bain, 32.
24 Tiberghien, 106.
reverence” from its image of “responsible power.”28 However, this theory fails to explain why China had long introduced very active domestic climate policies under President Hu’s leadership despite their seemingly reluctant attitude and obstructive role in climate negotiations.

This paper agrees that all the extant theories can partially explain China’s climate foreign policy, but I recognize that the theoretical divide between the rational choice and social constructivism approaches, the neglect of the connection in China’s climate diplomacy under different political leaders, together with the failure to distinguish China’s domestic and international climate policy have prevented a more comprehensive understanding of China’s climate foreign policy preferences.

---

28 Li, 354.
Section 3 Theoretical Framework

3. 1 Climate Politics as a Two-Level Game

Robert Putnam’s widely quoted “two-level game” theory sheds light on the understanding of China’s climate politics. According to Putnam:

The politics of many international negotiations can usefully be conceived as a two-level game. At the national level, domestic groups pursue their interests by pressuring the government to adopt favorable policies, and politicians seek power by constructing coalitions among those groups. At the international level, national governments seek to maximize their own ability to satisfy domestic pressures, while minimizing the adverse consequences of foreign developments. Neither of the two games can be ignored by central decision-makers, so long as their countries remain interdependent, yet sovereign.29

China’s domestic climate politics is entangled with international climate politics, as a result of a two-level game in international climate negotiations. However, since China is a one-party authoritarian regime, its climate politics is slightly different from what Putnam described. Compared to democracies, at the national level, social groups play a less significant role in China’s domestic climate politics compared to political elites.30 The authoritarian government enfeebles the civil society and thus weakens the power of social forces. By contrast, political elites serve as an independent actor and exert great influence on China’s climate policies to maximize their power. At the international level, since the Chinese government faces fewer domestic pressures, elites’ calculations of national interests play a bigger role. Based on this framework, this paper will disaggregate China’s climate politics into the domestic and international dimension and reveal how different factors play out in both arenas.


30 Heggelund, 229.
3.2 Interplay between Ideas and Interests in Climate Diplomacy

The reference to Putnam’s “two-level” game suggests that climate foreign policies are never the outcome of a single variable. The role of national interests has long been emphasized in the analysis of China’s climate diplomacy. It is common to acknowledge the role of national interests in China’s foreign policy. Some scholars compare China to “the high church of realpolitik in the post-Cold War world,”\(^{31}\) and emphasize how the post-Mao period China adopts “a more comprehensive and synthetic approach…[focusing on] how to make China rich and strong.”\(^ {32}\) Past studies agree that previously, national interests have profoundly shaped its climate diplomacy given China’s insistence on its sovereignty and economic growth.\(^ {33}\) However, since China’s national interest serves as a constant rather than a variable in its foreign policy, the national interest alone should not be regarded as a single factor in the explanation of China’s climate diplomacy.

This paper hypothesizes that the shift in China’s climate diplomacy is a result of interaction between leaders’ shifting perception of sustainable development and a constant national interest calculation in international climate negotiations.

Many scholars have studied the role of perception in foreign policy. Goldstein and Keohane recognize the influence of ideas in other foreign policies. Their work suggests that

---


“worldviews, principle beliefs, and causal beliefs held by policy-makers”\textsuperscript{34} serve as roadmaps for decision makings. Other scholars focus on “perception and misperception, group think, parochialism in the agencies and the like”\textsuperscript{35} to analyze foreign policy preferences. However, Barkdull and Harris synthesize all the theoretical frameworks in environmental foreign policy and stress that the impact of elites’ ideas on environmental foreign policy has been an under-explored area in environmental politics.\textsuperscript{36}

Attempting to contribute to theory-building in climate diplomacy, this paper uses China’s climate diplomacy as the case to explore the role “the psychology of leadership and small decision-making groups”\textsuperscript{37} on environmental foreign policy. China is a prominent example given its authoritarian regime. First of all, China’s decision-making structure is designed to guarantee the CPC leaders’ ideas will be translated into policies because “the majority of members within the decision-making bodies, especially those who are in control of policy implementation, have to be the members of the CPC.”\textsuperscript{38} Also, the foreign policy decision-making structure in China reveals that its foreign policy is the result of the collective consensus among CPC leaders. The Politburo Standing Committee (PSC), as the executive committee of the Central Committee, is the final decision-making body on foreign policy in China. This body follows the principle of “collective leadership” granting veto powers to each political leader inside the group.\textsuperscript{39}

\textsuperscript{34} John Barkdull and Paul G. Harris, “Environmental Change and Foreign Policy: A Survey of Theory,” \textit{Global Environmental Politics} 2, no. 2 (2002): 82.

\textsuperscript{35} Ibid., 83.

\textsuperscript{36} Ibid.

\textsuperscript{37} Ibid., 83.


\textsuperscript{39} Ibid.
3.3 Ideational Source of Leaders’ Perception Shift

The study of causal pathways between leaders’ perception and policy preferences requires the exogeneity of the ideational factor. Alan Jacobs offers a conceptualization of an ideational theory. According to him, an ideational theory is “a causal theory or (explanation) in which the content of a cognitive structure influences actors’ responses to a choice situation, and in which that cognitive structure is not wholly endogenous to objective, material features of the choice situation being explained.”40 Thus, to parse out the causal effect of an ideational factor from materialist factors, we need to figure out the cognitive prior isolated from material sources. In doing so, we rule out the endogeneity of the ideational factor.

Norm localization theory offers a possible source of leaders’ shifting perception of sustainable development, although I do not argue that the incorporation of the climate protection norm into the domestic norm can be regarded as the evidence of norm localization. Constructivist scholars stress the importance of domestic factors in norm diffusion, arguing that “the successful diffusion of a particular international norm requires a reasonable degree of congruence between the norm and the domestic conditions of states.”41 In China’s authoritarian regime, to maximize their powers in domestic politics, every generation of Chinese political leaders promotes new domestic norms to establish their own ideology. The common ground between their new domestic norms and the climate protection norm makes it possible for them to

---


incorporate the climate protection norm into their own paradigm to enhance their theoretical legitimacy and innovation.

To some extent, political leaders act as a “norm entrepreneur” because of their determination to “break away from the established”\(^42\) and propose a new political paradigm, which builds congruence with the climate protection norm and leads to the incorporation of such a norm. However, political leaders have a constraining and enabling effect on norm localization in that the climate protection norm is open to interpretation. Acharya, a widely-quoted scholar on norm localization, stresses the impact of “how local ‘norm-takers’ interpret those norms, adapt them to local normative structures, and thereby rephrase their original meaning.”\(^43\) The climate protection norm in China is not regarded as a mere environmental protection norm. Instead, Chinese leaders have interpreted this norm as development guidance and incorporated the climate protection norm into the conceptualization of sustainable development which has been China’s domestic economic reform focus since 1990s. The absorption of the climate protection norm into domestic norms “reveals an intimate relationship between norms and rationality,”\(^44\) which may help to bridge the divide between the rational choice theory and social constructivism in the study of China’s climate diplomacy.


Section 4 Methodology

4.1 Process-Tracing Method

This paper employs process tracing as an analytical method to evaluate the proposed hypothesis. The difficulty of testing my hypothesis lies in the fact that we cannot directly observe causality in the production of climate foreign policy, especially when the issue involves leaders’ cognitive perception. However, the process tracing method can help to make causal inference based on the temporal sequence of “observable and testable implications” derived from my hypothesis. Jeffrey T. Checkel and Andrew Bennett define process tracing as the method to “identify the intervening causal process – the causal chain and causal mechanism – between an independent variable (or variables) and the outcome of the dependent variable” based on “histories archival documents, interview transcripts, and other sources.” They argue that process-tracing is “particularly well suited for measuring and testing hypothesized causal mechanisms.”

However, it should be noted that despite the diversity of evidence which would be presented in this paper, the probative value in the evidence varies. Checkel and Bennett link the probative value of evidence to “the degree to which a hypothesis uniquely predicts that evidence.” They further mention four different tests in process tracing, including hoop tests,

46 Ibid., 6.
48 Ibid., 3.
49 Ibid., 16.
smoking gun tests, doubly decisive tests and straw-in-the-wind tests, which determine the probative value of evidence.\textsuperscript{50} Passing a hoop test requires “certain but not unique” evidence, which will not increase greatly a probative value of evidence but failing a hoop test will help to exclude an explanation.\textsuperscript{51} A smoking-gun test needs “unique but not certain” evidence.\textsuperscript{52} Passing a smoking-gun test will enhance the leverage of an explanation but failing a smoking-gun test will not greatly impugn a hypothesis. Doubly decisive tests require both “unique and certain evidence,”\textsuperscript{53} which greatly boosts confidence in a hypothesis. By contrast, a straw-in-the-wind test only has “weak or circumstantial evidence,”\textsuperscript{54} which cannot offer a decisive evaluation of a hypothesis. Thus, the leverage of the testing hypothesis depends on the type of tests it passes.

\textbf{4.2 Process-Tracing Tests on Ideational Theories}

This paper will employ three tests on the ideational theory laid out in the article “Process Tracing the Effects of Ideas” by Allan Jacobs. First of all, Jacobs highlights the importance of analyzing “mostly private communications.”\textsuperscript{55} He acknowledges what decision-makers say and write offers “intuitive observable implications” due to the expectation that “we should observe communication, during the process of decision-making, that is congruent with the idea.”\textsuperscript{56} However, he points out that the context affects the probative value of the communicative evidence; strategic motives may lead to measurement errors of the verbal expressions. Thus, he

\begin{itemize}
\item\textsuperscript{50} Ibid.
\item\textsuperscript{51} Ibid., 16.
\item\textsuperscript{52} Ibid.
\item\textsuperscript{53} Ibid., 17.
\item\textsuperscript{54} Ibid.
\item\textsuperscript{55} Ibid.
\item\textsuperscript{56} Ibid., 49.
\end{itemize}
emphasizes the need to employ private communications. In the case of China’s climate diplomacy, leaders’ verbal expression during the international conferences and the release of diplomatic documents would be a biased indicator. At the international level, given the fact that China is the largest GHG emission emitter, chances are high that the release of diplomatic documents and the discourse on climate mitigation at the international conferences would be a strategic communication rather than evidence of a sincere stance due to the international pressure. In contrast to previous studies, this paper employs the verbal evidence in China’s domestic conferences and reports, which are not initially targeted at the international community. Although this paper does recognize that the memos of private meetings between top CPC leaders have more probative value, due to China’s regime type, it is quite hard for the author to obtain such private evidence. Thus, this paper considers the talks at the CPC National Congress, lectures at the collective study session of the Political Bureau of the CPC, the Government Work Report, and domestic policies issued by the State Council and the National Development and Reform Commission of the PRC (NDRC) as private communications at “close-door settings,” which has relatively more probative value compared to Chinese leaders’ international discourse.

The second test is to examine within-case covariation. Employing Mill’s (1868) Method of Difference, I look at whether the outcome varies with the shifting ideational factor while keeping the material factor constant. First of all, this paper disaggregates climate diplomacy under President Hu’s leadership into two units – from 2002 to 2006 and from 2007 to 2009. The underlying assumption is that that over a span a decade, there is no radical shift in China’s national interests in climate negotiations, thus guaranteeing the stability of material factors under

57 Jacobs, 53.

58 See Appendix A for A Summary of Within-Case Covariation Tests.
the same government. Additionally, this paper compares climate diplomacy from 2010 to 2012 and that from the end of 2012 to 2015. Since the 12th Five-Year-Plan (2011-2015) was drafted under President Hu’s office, which has defined China’s core national interests from 2011 to 2015, we assume a constant national interest despite a transition of political power from President Hu to President Xi. The advantage of a within-unit covariation case is that this can overcome the degree of freedom issue prevalent in the small-N analysis, as Jacobs argues that such a test “multiplies the number of cases available for analysis within a single unit.”59 More importantly, this method can help to exclude the causal effect of material factors and thus reduce multicollinearity.

The third test is to trace ideational diffusion. Jacobs stresses that this test helps to establish exogeneity of ideas and “validate communication as an unbiased measure of sincere ideas.”60 In each case, I identify whether there is evidence of ideational origins. Put differently, I test whether the climate protection norm has been incorporated into the domestic norm. Therefore, in the process-tracing chart with causal process observations, the causal mechanism begins with the cognitive prior rather than a shift in leaders’ perception of sustainable development (see Figure 1).

In doing so, this paper attempts to trace the temporal sequence of events underlying the proposed causality between the ruling elites’ perception shift and China’s climate diplomacy. To be clear, this paper regards China’s commitment voiced at the 2009 Copenhagen and 2015 Paris Climate Conference as a proxy of its international climate commitment under different leaders’ office. In the last section, I will investigate other rival explanations in the literature and specify

59 Ibid., 57.
60 Ibid., 51.
which tests alternative hypotheses have failed, which would enhance the validity of the proposed hypothesis.
(1) **Leaders incorporates the climate protection norm into a new domestic norm.**
CPO 1: Leaders propose a new domestic norm and establish this as a new ideology.
CPO 2: Political leaders will begin to connect climate change with their new belief at the domestic meetings or conferences.

(2) **There is a shift in elites’ perception of sustainable development.**
CPO 1: Leaders will propose new alternatives of economic development model.
CPO 2: There will be an increase in the research on the new alternative economic model.

(3) **Government accelerates the interaction between economic transformations and climate mitigation.**
CPO 1: The government accelerates economic transformations as a way to address climate change.
CPO 2: The government utilizes climate mitigation to drive economic transformations.

(4) **There is an expansion in bilateral cooperation between China and industrialized countries in climate mitigation.**
CPO 1: China establishes cooperative platforms specifically targeted at climate cooperation with industrialized nations
CPO 2: The bilateral climate cooperation will drive China to make more ambitious climate commitments.

(5) **China’s climate commitment is increasingly proactive but still lacks ambition.**
CPO 1: China increases its voluntary climate commitments.
CPO 2: China’s climate commitments are still insufficient to reach the common goal in global climate governance.
Section 5 Empirical Evidence

In this section, I will present three cases, including China’s climate diplomacy from 2002 to 2006, from the 17th CPC National Congress (2007) to 2012, from the 18th CPC National Congress (2012) to 2015. Empirical evidence derived from the talks at the CPC National Congress, President and Primer speeches at domestic settings, lectures at the collective study session of the Political Bureau of the CPC, the Government Work Report and other policies issued by the NDRC, attempts to lay out the temporal sequence between elites’ perception shift and the change in climate diplomacy. It should be noted that China’s climate politics from 2002 to 2006 serves as a counterfactual case, where leaders did not incorporate the climate protection norm despite the presence of a new domestic norm.

5.1 China’s Climate Politics from 2002 to 2006

Faced with the environmental and social issues caused by the previous single-minded economic development model, President Hu first proposed a new norm on the relationship between environment and economic growth. On July 28th, 2003, in his speech at the National Work Conference on SARS Prevention and Control, President Hu for the first time introduced the “Scientific Development Concept,” which refers to “comprehensive, coordinated, and sustainable development.” Later the same year, at the Third Plenary Session of the 16th Central Committee of the CPC, President Hu further reiterated that we should “adhere to a people-

---

oriented approach and establish a comprehensive, coordinated and sustainable scientific development concept, promote all-round economic, social and human developments.”

The Second Session of the Tenth National People’s Congress in 2004 symbolized that the Scientific Development Concept has been established as an official ideology in China since this notion was incorporated into the Constitution at this session and adopted as brand-new guidance for future socio-economic development in March 2004.63

With a focus on energy conservation and resource saving, the Scientific Development Concept reflects Chinese leaders’ new understanding of the relationship between environment and economic growth. In December 2004, at the Central Economic Work Conference, political leaders pointed out that to fully implement the “Scientific Development Concept”, we should address the tension between economic development and resource and environmental protection, thus setting the goal of energy and resources saving.64

However, before 2007, in speeches at the CPC National Congress, we cannot find any keywords on climate change, such as “greenhouse gases,” “climate change,” or “global warming.” On the other hand, considering China’s insistence of the “common but differentiated responsibility” (CBDR) principle in international climate negotiations, political leaders had no incentives to hide their sincere commitment on climate mitigation at the national level. Thus, if


they had incorporated the climate protection norm into the domestic norm, we could have found such evidence readily. According to Bennett and Checkel, “if we expect evidence to be readily accessible and doubly decisive – as when we feel around for change in our pocket – failure to find something constitutes strong evidence it does not exist.” Hence, we can interpret this absence of evidence as evidence of absence. We can infer from here that previously leaders did not incorporate the climate protection norm into the Scientific Development Concept.

During this period, leaders’ perception of sustainable development was still confined to the circular economy promoted since 1990s, as evidenced by the 11th Five-Year-Plan (2005). There is an entire section on “the circular economy” which emphasizes energy conservation.

Strengthen the policy orientation for energy conservation and high efficiency utilization and increase energy saving strength. Realize structural energy conservation by optimizing the industrial structure and especially reducing the weight of high energy consumption industry; realize technical energy conservation by developing and popularizing energy conservation technology; and realize management energy conservation by strengthening the system construction in the industries such as energy production, transport, and consumption... Accelerate the elimination of old transport equipment. Formulate substitute liquid fuel standards and actively develop petroleum substitute products. Encourage the production and use of highly efficient energy saving products.

China’s international climate commitment remained business as usual before 2007. At Ad-hoc Working Group leading up to the Copenhagen in 2006, China made a statement that there would be “no new commitment, other than those provided for in Article 4 of the Convention and Article 10 of the Kyoto Protocol, shall be introduced for Parties not included in Annex I to the Convention.”

---

65 Jeffrey Checkel, and Andrew Bennett, “Process Tracing,” 19.


67 Williams, "Why commit?" 22.
5.2 China’s Climate Politics from 2007 to 2012

5.2.1 Incorporate the Climate Protection Norm

Since 2007, President Hu began to integrate the climate protection norm into the Scientific Development Concept. An important finding is his speech at the 17th CPC National Congress in 2007 when the Scientific Development Concept was incorporated into the CPC Charter. In his speech named “Hold High the Great Banner of Socialism with Chinese Characteristics and Strive for New Victories in Building a Moderately Prosperous Society in All Respects”, he mentioned that “[w]e will enhance our capacity to respond to climate change and make new contributions to protecting the global climate.”68 It is the first time that climate change was mentioned at the National Congress of the Communist Party. We can infer that the CPC leaders officially incorporated the climate protection norm into the domestic belief.

5.2.2 Shift the Perception of Sustainable Development

Since 2008, sustainable development has no longer been perceived as simply energy conservation but as the low-carbon economy. In 2008 January, Professor He Jiankun established the Low Carbon Economy Institute at Tsinghua University, which is the first institution to study the low-carbon economy, policy, and strategies in China.

Also, in 2008 March, during the National People’s Congress and Chinese People’s Political Consultative Conference (CPPCC), Wu Xiaoqing, a CPPCC National Committee

---

member, proposed that whether China can take the lead in the world in the future decades depends on China’s ability to develop a low-carbon economy.\(^6^9\)

On June 28\(^{th}\) 2008, the 17th Communist Party of China Central Committee invited Professor He Jiankun from Tsinghua Low-Carbon Economy Institute, and Luo Yong, a researcher from National Climate Center of China Meteorological Administration to hold a lecture on “Global Climate Change and China’s Capacity Building to Strengthen Climate Change” at the 6th collective study session of the Political Bureau of the Communist Party of China Central Committee.\(^7^0\)

It should be noted that He Jiankun is the top expert on climate change and the low-carbon economy in China. He was one of the first experts to study climate change policies in China and the director of the "Eighth Five-Year Plan" scientific and technological breakthroughs "Research on Countermeasures for Mitigating Greenhouse Gas Emissions", "Ninth Five-Year Plan" Scientific and Technological Research "Study on Important Strategies and Policies for Global Climate Change,” and “Eleventh Five-Year Plan” Scientific and Technological Research Reducing the Impact of Climate Change “Social Economic Assessment” and other national key projects on climate change.\(^7^1\) Thus, inviting him to give lectures for the top CPC leaders reveals

---


that they began to consider the low-carbon economy as a viable alternative to the circular economy after they incorporated the climate protection norm into the Scientific Development Concept.

5.2.3 Accelerate the Interaction between Climate Mitigation and Economic Transformations.

Since 2008, the perception shift in sustainable development from the circular economy to the low-carbon economy has driven Chinese leaders to accelerate the interaction between climate mitigation and domestic economic transformations. The government utilizes climate mitigation to drive the transition to a low-carbon economy. In return, the government relies on low-carbon industries to reduce GHG emissions.

At the end of 2008, in China’s 4 trillion RMB stimulus package in response to the global financial crisis, 210 billion RMB was invested in energy conservation, carbon emissions reduction, and pollution reduction. Another 370 billion RMB was invested for technological transformations and energy-intensive industrial structure adjustments.72

The NDRC under the order of the State Council issued “Long-Range Plan for Adjustment and Rejuvenation” for ten key industries, covering a three-year period, from 2009 through 2011.”73 These top ten industries include automobiles, steel, shipbuilding, petrochemicals, light industries, textiles, non-ferrous metals, equipment manufacturing, electronic information, and logistics. Across these ten industries, the long-range plan focused on

---


73 Ibid.
energy conservation, environmental protection, and emission reductions as guidance of reforms.  

In 2009 August, Premier Wen hosted the State Council Executive Meeting to deploy climate change response work. This meeting reiterated that climate change is both an environmental issue and a development issue; in essence, climate change is a development issue. Also, Premier Wen stressed that developing the low-carbon economy is one of the important areas to address climate change:

We should integrate the decision-making and deployment of expanding domestic demand and promoting economic growth, cultivate new economic growth points characterized by low-carbon emissions, and accelerate the establishment of industrial, construction, and transportation systems characterized by low-carbon emissions.

Despite the pressure from the global financial crisis, in November 2009, in another State Council Executive Meeting held by Premier Wen, political elites reached a consensus on plans to address climate change. According to their plan, first, China should establish a target of a 40 to 45 percent reduction in CO₂ emissions per unit of GDP by 2020 from the 2005 level and demanded that governments at all levels should integrate controlling greenhouse gas emissions and adapting to climate change into their long-term development strategies and plans. Second, concrete climate change mitigation targets should be implemented under the 11th FYP and be further
developed in the 12th FYP. Thirdly, based on the task of addressing climate change, this meeting stressed the need to “accelerate the construction of industrial, construction, and transportation systems characterized by low-carbon emissions”, “carry out pilot low-carbon economy programs, and promote resource-saving, environment-friendly production methods, lifestyles, and consumption patterns”, and “accelerate the introduction of capital, technology, and talents, and effectively absorb advanced low-carbon technologies and climate change technologies.”

In 2009 November, Premier Wen Jiabao gave a speech titled “Let Technology Lead China’s Sustainable Development.” In the speech, Premier Wen (2009) identified seven Strategic Emerging Industries, which would contribute to the low-carbon economy, including energy efficient and environmental technologies, next generation Information Technology (IT), Biotechnology, High-end Equipment Manufacturing, New Energy, New Materials, New-Energy Vehicles (NEVs). He pointed out that

The global financial crisis is hastening the birth of a new technological and industrial revolution...It is of decisive importance for the future of our country that we develop strategic emerging industries (SEIs) and capture the economic, scientific and technological high ground... We should highly value new energy industry, innovate renewable energy technology, energy conservation technology, clean coal technology and nuclear technology, and promote energy conservation, environmental protection, and recycling of resources, and accelerate the industry, construction, and transportation system with the characteristic of low-carbon emissions.

From a series of documents issued by the government, we can infer the government has increased the interaction between climate mitigation and economic transformations. Since 2008,

---

78 Ibid.

79 Ibid.

China has been affected by the financial crisis and faced with the pressure of stimulating economic growth. However, dealing with climate change provided Chinese leaders with a solution to addressing the global financial crisis and optimizing domestic industrial structures. Also, the transition to the low-carbon economy is one of the essential ways for China to address climate change.

5.2.4 Expand the Bilateral Cooperation on Climate Change

The interaction between climate mitigation and economic transformations has spread to the international level. China not only deepened its cooperation with the U.S. on the low-carbon economy but also launched cooperative platforms on climate change.

In the second half of 2009, there was an expansion of China and the U.S. cooperation on the low-carbon development. For instance, in 2009 October, the U.S.-China Joint Commission on Commerce and Trade met in Hangzhou and strengthened the cooperation on the clean energy sector.\(^{81}\) In 2009 November, the U.S.-China Clean Energy Research Centre was finalized, which aimed to focus on “building energy efficiency, clean coal including carbon capture and storage, and clean vehicles.”\(^{82}\) In the same month, both countries announced the U.S.-China Energy Efficiency Action Plan, the U.S-China Renewable Energy Partnership, 21st Century Coal, Shale Gas Initiative, and the U.S-China Energy Cooperation Program (ECP).\(^{83}\)

What differentiated these projects from their previous collaborative areas is the scope. In the past, the projects on clean energy rested on the official intergovernmental cooperation.

---


\(^{82}\) Ibid.

\(^{83}\) Ibid.
However, those projects starting from 2009 have involved the government, academia, and the civil society. All of these initiatives in November required the participation of social actors such as industry leaders, academia, and the civil society to work together with regulators and policymakers.\(^{84}\)

Before 2009, China and the U.S. worked together in environmental areas such as clean energy and environmental protection. There was no specific cooperation on climate change. However, since the second half of 2009, China has begun to launch collaborative platforms specifically on climate change with the U.S. For example, in 2009, both sides reached a five-year agreement called Memorandum of Cooperation to Build Capacity to Address Climate Change; also, China and the U.S. established Memorandum of Understanding to Enhance Cooperation on Climate Change, Energy, and the Environment and started Climate Change Policy Dialogue.\(^{85}\)

### 5.2.5 Enhance but under Promise International Climate Commitments

Two weeks before the Copenhagen Climate Change Summit in 2009, China for the first time became confident to declare its voluntary commitment to reduce carbon emissions. In December 2009, prior to the Copenhagen Conference, China proposed its voluntary emission reduction target of cutting CO\(_2\) intensity by 40-45\% compared to 2005 and of increasing the share of non-fossil energy in primary energy mix from 6.8\% to 15\% in 2020.\(^{86}\) It should be noted that during the period between 2010 and 2012 after the Copenhagen Climate Conference, China made no further concrete commitment on carbon emission reductions at COP, despite the fact

---

\(^{84}\) Ibid., 213-215.

\(^{85}\) Ibid., 214-215.

that China’s diplomatic posture has become more active. To be more specific, in 2010, at COP 16 in Cancun, China reaffirmed its target for climate change mitigation that it would be expected to meet 40 percent–45 percent per unit of GDP reduction during year 2010–2020 compared with 2005 level.⁸⁷ Although China claimed to be willing to accept a binding platform for the post-2020 emission reductions at COP 17,⁸⁸ it still wanted to incorporate the principle of “common but differentiated responsibilities” into the Durban Platform framing and emphasized that developed countries should shoulder more responsibilities than developing nations.⁸⁹

Some scholars may consider China’s voluntary commitment before the Copenhagen as “business as usual” because of its strong opposition at the Copenhagen Conference. Indeed, under this carbon intensity reduction target, China’s absolute GHG emissions can still grow rapidly given its rising energy use. However, we cannot deny China’s shift from its previous climate diplomacy since “this was the first time China publicized a quantifiable target directly referring to carbon emissions.”⁹⁰ A comparison with China’s stance in 2006 reveals the shift in China’s stance resulting from the impact of leaders’ perception change of sustainable development in 2008. Also, this voluntary commitment is not a strategic climate commitment under the international pressure in that this target has been made as a domestic goal of climate mitigation at the State Council Executive Meeting hosted by Premier Wen in 2009 November,

---


⁸⁹ Ibid.

which was before the Copenhagen Conference. Secondly, in the 12th FYP drafted in 2010, Chinese leaders for the first time established a legally binding target for the reduction of carbon intensity. It is expected to reduce the carbon emission per unit of GDP by 17% by 2015.91 Thirdly, the Chinese government has issued the first policy directing the work on GHG emissions reductions, called "Twelfth Five-Year Work Plan to Control Greenhouse Gas Emissions."92 In this document, the central government assigned the specific emission reduction quota to every province.93

However, the calculations of national interests have still prevented China from taking any ambitious obligations. In 2009, China experienced the global financial crisis. In the 2009 Government Work Reported presented by Premier Wen, for the first time under the leadership of President Hu, the government pointed out the tremendous difficulty in economic development. Premier Wen stated that,

While acknowledging our achievements, we must also soberly realize that we are facing unprecedented difficulties and challenges…due to the impact of the international financial crisis, the continued slowdown in economic growth has become a major conflict that affects the overall situation. Some industries have overcapacity, some of them are in difficulties, and the employment situation is very serious…this year is the crucial year for the implementation of the “Eleventh Five-Year Plan”, and it is also the most difficult year for China's economic development since the beginning of the new century. The task of reform, development, and stability is very onerous.94


93 See Appendix B for Carbon Intensity Reduction Quota for Areas in the 12th FYP.

From 2003 to 2008, Premier Wen never talked about the difficulty faced by the Chinese government in the Government Work Report. We can conclude that China encountered unprecedented challenges in its domestic economic transformation in 2009.

Therefore, at the Copenhagen Climate Conference in December 2009, China took a tough position to reject the proposal on 50 percent reductions in global emissions by 2050 or on 80 percent reductions by developed countries. Zhang explains why China vetoed the proposal for developed nations. He argues that although this proposal seems to be targeted at industrialized nations, “[n]eeding to cut both global greenhouse gas emissions by 50 percent and that of industrialized countries by 80 percent by 2050 means that emissions in developing countries are only allowed to increase by 15 percent by 2050 relative to their 1990 levels. Given their very low levels in 1990, China considers this unacceptable.”95 This quota would limit China’s rapid urbanization and industrialization.96

5.3 China’s Climate Politics from 2012 to 2015

5.3.1 Incorporate the Climate Protection Norm

In 2012 November at the Third Plenary Session of the 18th Central Committee of the Communist Party of China (CPC), President Hu presented the 18th CPC National Congress report which President Xi was responsible for drafting. In this report, ecological civilization was highlighted as a new domestic norm. There is a single section on ecological civilization where he emphasizes the importance of addressing climate change with the international community.97

95 Zhang, 2010.

96 Ibid.

Contrary to the Scientific Development Concept which aims to balance economic development and environmental protection, ecological civilization regards environmental protection as a foundation for economic prosperity, as can be seen in President Xi’s talks. In President Xi’s keynote speech during the sixth collective study session of the 18th Central Political Bureau, he pointed out that

We must properly handle the relationship between economic development and ecological environment protection, and firmly establish the notion that protecting the ecological environment is to protect productivity and improving the ecological environment is to develop the productivity.98

President Xi frequently employs an analogy to explain “ecological civilization”. He states that “lucid waters and lush mountains are invaluable assets per se.”99 He summarizes three stages of understanding the relationship between environment and economic development:

In the first phase, we sacrifice lucid waters and lush mountains in exchange for gold and silver mountains; in the second phase, we want gold and silver mountains without sacrificing lucid waters and lush mountains; in the third phase, we realize that lucid waters and lush mountains can bring us gold and silver mountains.100


100 Ibid.
He critiques the first and second phase in the previous economic development model by connecting ecological civilization to the third phase.

In 2013 December, Zhang Gaoli, the member of Standing Committee of the Political Bureau of the CPC Central Committee, Vice Premier of the State Council, Deputy Secretary of the Party Group, published a paper on “ecological civilization” in Qiushi, the publishing agency of the Central Committee of the Chinese Communist Party. In this paper, he reiterates that Fifth, advancing the construction of ecological civilization is the only way to cope with global climate change. Current climate change has become a major global challenge. Maintaining ecological security has become a common task for all humanity. China has been closely linked with the world. We must work together with the international community to actively respond to climate change, do our utmost to fulfill our responsibilities and obligations, vigorously promote the construction of ecological civilization, and effectively control greenhouse gas emissions.¹⁰¹

All of these findings strongly support that the climate protection norm has been incorporated into the “ecological civilization” since the 18th National Congress of the Communist Party of China.

5.3.2 Shift the Perception of Sustainable Development

Integration of the climate protection norm into the domestic norm of ecological civilization has shifted leaders’ conceptualization of sustainable development. Since the 18th National Congress of the Communist Party of China, leaders’ perception of sustainable development shifted from the low-carbon economy to the green development, which captures environmental protection, emission reductions, and industrial restructuring.

In an interview with Yves Tiberghien, Xie Zhenhua, China’s chief climate negotiator,

stresses that

the 18th Party Congress in November 2012 marks the key turning point toward rapid action on climate change. It is at the 18th National Congress of the Communist Party of China that China formed the green, low-carbon, circular development strategy... The 18th Congress is a milestone as it was elevated to a strategic level.102

In 2013 September, President Xi (2013) said to Hebei Provincial Party Committee that

[w]e can remove the limit on you. Even if GDP declines to the 7th or 8th position, but there is a great improvement in the green development, and you contribute to tackling air pollution and the alleviation of smog, we still reward you as a hero.103

Also, this new conceptualization of sustainable development has already been absorbed by local officials. Many mayors shared their understanding of green development in the discussion at the first session of the National Congress in 2013.

The mayor of Changsha in Hunan Province spoke at the Conference that,

the government should continue to increase investment in environmental protection, apply scientific methods, vigorously carry out research on environmental protection, promote environmental protection technologies, and support the development of environmental protection industries. In the path of economic development, we must be determined not to destroy the environment, minimize the impact, and repair it with maximum strength.104

The head of Dali in Yunnan Province also pointed out that

Eco-environmental protection plays a leading and effective role in economic development... It is necessary to optimize the industrial structure, promote energy conservation and emission reductions, promote enterprise efficiency and environmental protection, expand domestic demand, develop environmentally friendly eco-industries, and meet ecological environmental requirements, and constantly innovate technologies to

102 Tiberghien, 111.


eliminate backward production capacity and achieve circular development, green development.\textsuperscript{105}

5.3.3 Accelerate the Interaction between Climate Mitigation and Economic Transformations

Since leaders’ perceptions of sustainable development integrated green development, the government utilized the green economy to drive GHG emissions reduction and also enhance domestic climate commitments as a stimulus of economic transitions.

In August 2013, the NDRC published Opinions on Accelerating Development of Energy-Saving and Environmental Protection Industry. One of the important areas highlighted in this document is new energy vehicles, which can curb one major source of GHG emissions. This document suggests that

Accelerate the research and promotion of new energy vehicles. Accelerate the implementation of projects on energy-saving and new energy vehicle technology, vigorously strengthen power battery technology innovation, focus on solving the safety, reliability and weight issue of power battery systems... Accelerate the improvement of supporting industries and charging facilities, and demonstrate and promote of pure electric vehicles and plug-in hybrid vehicles and aerodynamic vehicles.\textsuperscript{106}

Moreover, proposals on industrial reforms in the Action Plan for Air Pollution Prevention and Control issued in September 2013 are closely linked to carbon emissions. For example, it suggests an establishment of the emissions trading system, improvement on GHG emissions measurements, and a cap on coal consumption. It states that

\textsuperscript{105} Ibid.

Establish an energy savings and emissions trading system. Promote the pilot of carbon emission trading and establish a national carbon emissions trading market.107

Further improve the measurement, statistics, monitoring and verification systems for energy conservation, emissions reduction and carbon reduction to ensure accurate and consistent data.108

The total coal consumption in the Beijing-Tianjin-Hebei region is expected to be achieved negative growth in 2015 compared to that in 2012.109

Besides, the target of increasing the share of clean energy in Energy Development Strategic Action Plan (2014-2020) would also lead to the decline in GHG emissions. For instance, it expects that by 2020, the total primary energy consumption is limited at around 4.8 billion tons of standard coal, and the total coal consumption is controlled at around 4.2 billion tons...by 2020, non-fossil energy will account for 15% of primary energy consumption, natural gas will account for more than 10%, and coal consumption will be controlled within 62%...accelerate the supply of clean energy, control the total coal consumption in key areas and key areas, promote the reduction of substitution, and reduce coal consumption. By 2020, the proportion of coal consumption in the country will fall below 62%.110

Correspondingly, the Chinese government has increased their domestic climate commitment compared to that under President Hu’s office. Before 2012, China’s domestic climate mitigation focused on technical areas, including adjusting industrial structure, improving energy efficiency, optimizing energy structure, and increasing carbon sinks.111 However, under


108 Ibid.

109 Ibid.


111 State Council of China, China’s Policies and Actions for Addressing Climate Change (Beijing, 2011).
the leadership of President Xi, China has worked on the institutional design and further enhanced the management system and working mechanism for addressing climate change. In 2013, the State Council adjusted the structure and staff in National Addressing Climate Change Work Leading Group and added more functional departments.\textsuperscript{112} In 2013, the National Development and Reform Commission and related departments formulated assessment measures to evaluate the provincial government’s goal completion status, implementation of tasks and measures, basic work and capacity building in controlling GHG emissions in 2012.\textsuperscript{113}

In addition, China began to control emissions from non-energy activities. In 2013, China first shut down of 5 HCFC production lines. According to the World Bank, “China’s HCFC production in 2013 was reduced by 8.38 percent over the baseline year (2009-2010 average), and consumption reduced by 9.14 percent over the baseline year.”\textsuperscript{114} Tina Birmpill, the Executive Secretary of the Ozone Secretariat of UNEP, commented on China’s effort that “[u]nder its HCFC strategy, China will phase out its HCFC production, contributing not only to protect the ozone layer but also to mitigate climate change because HCFCs are also powerful greenhouse gases.”\textsuperscript{115}

The increasing commitment to climate mitigation is a driver to promote a comprehensive transition to the green economy. In 2013, carbon trading pilots were launched in Beijing, Tianjin,


\textsuperscript{113} Ibid.


\textsuperscript{115} Ibid.
Shanghai, Chongqing, and Guangdong, Hubei, and Shenzhen, which symbolized the advances in the green economy. In 2013 August, the NDRC issued A Notice on Enlarging the Work to Ensure the Implementation of the 2013 Energy Saving and Emission Reduction Targets and Tasks. In this document, it is pointed out that “energy conservation and emission reduction can help to accelerate the industrial transformation and development mode... promotes the formation of the industrial structure which saves resources and protects environment.” Thus, to realize the specific goal on the reduction of energy intensity, emissions of sulfur dioxide, chemical oxygen demand, ammonia nitrogen and nitrogen oxides, this plan lays out specific measures on optimizing energy structure, developing strategic emerging industries, and removing industries that will soon become obsolete, together with the related economic policy, technological innovation, and monitoring mechanisms. Many proposals in this document serve to accelerate the transition to green economy. For example, it suggests that

we will increase the subsidy standards for energy-saving products which will benefit the general public... Adjust Consumption Tax (CT) by including more high-pollution, high-energy consumption products in the taxable scope and levying additional CT on those products. Continue to implement the system of environmental pollution liability insurance for companies with high environmental risks such as heavy metals. Establish a key evaluation index system for green credit, a Green Credit Statistics System, strengthen the construction of a green credit information platform, and improve the financing capabilities of energy conservation and environmental protection enterprises and projects.


117 Ibid.

118 Ibid.

119 Ibid.
Most importantly, the NDRC issued China’s first long-term plan on addressing climate change named the National Plan on Climate Change (2014-2020). Proposals in this plan outline the goal and directions for green economic reforms across a broad range of areas including energy, industry, and environmental protection, as Tiberghien argues that China’s climate policy after 2012 “encompasses a broader development vision, an energy policy, an industrial policy, and an environmental policy.”\textsuperscript{120} This long-term plan would drive coordinated reforms in specific areas, including adjusting the industrial structure, optimizing the energy structure, strengthening energy conservation, controlling emissions in the industrial sector, urban and rural construction, transportation, agriculture, commerce, and waste treatment.\textsuperscript{121}

5.3.4 Expand the Bilateral Cooperation on Climate Change

Realizing the interplay between climate mitigation and economic transformations has driven Chinese leaders to take on more ambitious climate obligations, which paved the way for deepening bilateral climate cooperation. In 2014 fall, the Central Party Committee and State Council made a decision that “China will reach its peak of CO\(_2\) emission in 2030 and strive to achieve it as soon as possible, reduce CO\(_2\) per unit of GDP by 60-65\% over the 2005 level, raise the share of non-fossil fuels in primary energy consumption to about 20\% and increase forest stock by around 4.5 billion cubic meters over 2005.”\textsuperscript{122} It should be noted that several key economic ministries opposed such an increase in climate commitments.\textsuperscript{123} However, President

\textsuperscript{120} Tiberghien, 111.


\textsuperscript{122} Tiberghien, 118.

\textsuperscript{123} Ibid.
Xi pushed this decision despite some objections. This commitment contributed to the China-U.S. Joint Statement on Climate Change in 2014 November when China publicly announced its first commitment to peak its carbon emissions.

Also, China expanded the cooperation with the EU. In 2015 June, China and the EU issued the EU-China Joint Statement on Climate Change. Both sides hope to “step up the EU-China Partnership on Climate Change,” launch the EU-China Low-Carbon Cities Partnership, and work on “a multilateral solution to phase down the production and consumption of HFCs.”

Moreover, China reached agreement with France and issued China and France Joint Presidential Statement on Climate Change in October 2015 before the Paris Climate Conference where both countries “agree to enhance their coordination and cooperation on climate change,” determine to “strengthen their resolve to work together and with leaders of all other countries to reach an ambitious and legally binding Paris agreement,” and “underscore the importance of formulating 2050 national low-carbon development strategies.”

________________________

124 Ibid.
125 Ibid.
127 Ibid.
129 Ibid.
130 Ibid.
The collaboration with the U.S., the EU, and France can help China to promote the green economy. Their collaborative areas are highly correlated with issues on China’s economic transformation and climate mitigation agenda. The creation of China-U.S. Clean Energy Research Center made it possible for China to acquire technology in “carbon capture and storage, energy efficiency in buildings and clean vehicles” from the U.S.\textsuperscript{131} China-U.S. Climate Change Working Group (CCWG) serves as a platform for China to have technological cooperation with the U.S. on “vehicles, smart grids, carbon capture, utilization and storage, energy efficiency, greenhouse gas data management, forests and industrial boilers.”\textsuperscript{132} Also, from China and France Joint Presidential Agreement on Climate Change, in particular, the China-France Working Group on Green and Low-Carbon Economy, China can benefit from technology exchanges in low-carbon infrastructure, carbon capture and storage, renewable energy, energy efficiency, low-carbon transportation, low-carbon urbanization, circular economy, adaptation and carbon market.\textsuperscript{133}

5.3.5 Enhance but under Promise International Climate Commitments

The China-U.S. Joint Statement on Climate Change, the EU-China Joint Statement on Climate Change, and the China-France Joint Presidential Statement on Climate Change have laid a solid foundation for the Paris Agreement. In 2015 June, China submitted its National Determined Contributions (NDCs) under the Paris Agreement. These voluntary targets include “a commitment to peak CO\textsubscript{2} emissions by 2030 at the latest, lower the carbon intensity of GDP


\textsuperscript{132} Ibid.

\textsuperscript{133} France Diplomatie, \textit{China and France Joint Presidential Statement on Climate Change}. 
by 60%–65% below 2005 levels by 2030, increase the share of non-fossil energy carriers of the total primary energy supply to around 20% by that time, and increase its forest stock volume by 4.5 billion cubic metres, compared to 2005 levels.”

Since this is the first time that China accepted a cap on its absolute carbon emissions in international climate negotiations, China’s support for the Paris Agreement can be regarded as a shift from the Copenhagen Conference in 2009. However, still, China’s international commitment lacks ambition due to its calculations of national interests.

Chinese leaders have been concerned about the difficulty of economic transformations since 2013. Since 2013 December, President Xi has frequently mentioned the word “new normal” to describe China’s current economic development. He has had concerns about the new normal phase due to the absence of prior experience in China. In 2015 May, when he was researching in Zhejiang, President Xi asserted that “China's economic development has entered the new normal phase. Our understanding and practice about how to adapt to and lead the new normal has just begun. We still have no breakthroughs in some areas, which requires extensive exploration.”

---

134 NDRC, Enhanced Actions on Climate Change (Beijing, 2015), 5. http://www4.unfccc.int/ndcregistry/PublishedDocuments/China%20First/China%27s%20First%20NDC%20Submission.pdf.


136 Ibid.
Also, in the Government Work Report of 2015, Premier Li pointed out the challenges faced in China’s economic restructuring. He stated that

Over the past year, the international and domestic environments faced by China in its development have been complicated and challenging. The road to global economic recovery has been rough, with many ups and downs, and the performance of the major economies has been divergent. Downward pressure on China’s economy has continued to mount, and we have faced an array of interwoven difficulties and challenges... with downward pressure on China’s economy building and deep-seated problems in development surfacing, the difficulties we are to encounter in the year ahead may be even more formidable than those of last year... at the same time, China’s economic development has entered a new normal. Our country is in a crucial period during which challenges need to be overcome and problems need to be resolved. Systemic, institutional, and structural problems have become “tigers in the road” holding up development. Without deepening reform and making economic structural adjustments, we will have a difficult time sustaining steady and sound development.137

The uncertainty in further economic transformations has made it hard for Chinese leaders to propose more ambitious obligations in international climate negotiations. According to scholars on climate policy, such as Fergus Green and Nicholas Stern, “China’s international commitment to peak emissions ‘around 2030’ should be seen as a highly conservative upper limit.”138 Moreover, the Climate Action Tracker evaluate China’s NDCs as insufficient for the goal of limiting warming to below 2°C.139


Section 6 Alternative Explanations

The process-tracing method also requires the consideration of alternative theories and the examination of evidence given that the alternative explanation is true. One alternative theory based on the interest-based model argues that China’s climate diplomacy is shaped by national interests. Scott Moore, a scholar on environmental policy in East Asia, asserts that although China frames its climate policy as its commitment to climate change mitigation, its policy on climate change is justified by the pursuit of other interests, such as energy security and economic transformations. This hypothesis suggests that the domestic energy crisis has driven China’s energy reforms, leading to the decline of energy intensity and the increasing share of non-fossil fuel in primary energy since the 11th Five-Year-Plan Period. Considering the high likelihood of observing such evidence under both hypotheses, the rival hypothesis passes a hoop test. However, if this theory is right that climate mitigation is the co-benefit of economic transformations, it is less likely to observe that in 2009, Premier Wen held three specific meetings on climate mitigation and proposed the first long-term goal of the reduction of carbon intensity by 2020 during the global financial crisis. Neither, it is impossible to predict that China would announce its voluntary commitment on the carbon intensity reduction two weeks before the Copenhagen Conference given its long-standing hesitance with proactive climate commitments at the Climate Conferences. Thus, the rival theory fails a hoop test whereas the proposed theory passes a smoking gun test.

Another theory built on the interest-based model argues that China’s support for the Paris Agreement is driven by its motive to portray itself as a “responsible power” and to elevate its

---

140 Moore, “Strategic imperative?” 149.
international reputation, especially after the withdrawal of the United States.\textsuperscript{141} This explanation seems plausible in that China has shifted its discourse on the responsibility to tackle climate change at the Paris Conference. At the 2009 Copenhagen Conference, China claimed that “only the wealthier countries need to make internationally binding commitments.”\textsuperscript{142} However, in November 2014 at the Central Conference on Work Relating to Foreign Affairs, President Xi gave a speech and advocated “major-power diplomacy with Chinese characteristics” reflected in President Xi’s speech at COP 21 in Paris, stressing that tackling climate change is “the obligations of a responsible power.”\textsuperscript{143} This hypothesis can well predict that China strengthened its cooperation with the global South in climate mitigation and adaptation. In 2014, China established the South-South Climate Change Fund worth $3.1 billion in its assistance of developing countries to address climate change challenges. Therefore, given the relatively higher possibility of observing such an event under both hypotheses, the alternative theory passes a hoop test. Nevertheless, under the alternative theory, it is even less likely that China had made progress in climate change mitigation before President Xi took office compared to that under my theory. Therefore, this theory fails a \textit{hoop test} while the proposed theory passes a \textit{smoking gun test}.

\textsuperscript{141} Pedersen-Macnab, “A Gentle Giant,” 47.


The final theory argues that China’s international climate policy is shaped by social influence as predicted by the social constructivism. Although it can predict that China announced its voluntary commitment under pressure but under this theory, it would be less likely for China to reject the GHG emission reduction target imposed on industrialized nations in 2009. However, the evidence demonstrates that despite tremendous criticism from the small island countries and industrialized countries, China still vetoed the quota on industrial nations and led to the failure of the Copenhagen Climate Conference. Thus, this theory fails a hoop test whereas my theory passes a smoking gun test.

In summary, compared to alternative theories, my theory passes the smoking gun tests, and thus the leverage of the proposed theory has been greatly enhanced.
Section 7 Conclusion and Recommendations

In conclusion, by tracing the temporal trajectory of China’s climate diplomacy in three cases, this paper examines the black box between leaders’ perceptions of sustainable development and China’s climate diplomacy. From the leadership of President Hu to President Xi, the perception of sustainable development has changed from the circular economy to the low-carbon economy to the green economy. This conceptual shift has shaped leaders’ climate foreign policy choices. However, this paper also recognizes the limiting impact of national interests on climate diplomacy. Although the shift in leaders’ perceptions has made it possible for China to become increasingly proactive in its climate diplomacy, China still tends to under promise its climate commitments in international climate negotiations given the challenges in transforming its domestic economy. Nevertheless, recognizing the impact of two variables within different dimensions, this paper admits the compromise made between parsimony and a comprehensive understanding of China’s climate policy.

The findings of this paper offer possible directions for the future study of environmental politics. The first question is the mechanism of how the climate protection norm has been incorporated into China’s domestic norms. Whether both cases can be regarded as norm localization may shed light on the conceptualization of norm diffusion. Secondly, the findings advance the discussion of China’s potential as a global climate leader. Since the Paris Agreement, China has demonstrated its motivation to be more engaged in global climate governance. However, considering the limiting effect of national interests on its climate commitment, it would be hard to expect China to assume a transformative leadership role in future climate governance despite China’s new diplomatic posture in international climate negotiations. Thirdly, in the explanation of China’s climate diplomacy, this paper puts a lot of
emphasis on China’s domestic political structure and its regime type. This paper looks at the dynamics between domestic politics and international politics, yet what remains less explored is the interaction between the regime type and the actual policy outcomes. This paper hopes to pave the way for further research on the study of authoritarian environmentalism.
Bibliography


Appendix A: Summary of Within-Case Covariation Tests

Table 1

<table>
<thead>
<tr>
<th>Year</th>
<th>X1 (perception shift)</th>
<th>X2 (national interest)</th>
<th>Y (change in international climate commitments)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002-2006</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2007-2009</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 2

<table>
<thead>
<tr>
<th>Year</th>
<th>X1 (perception shift)</th>
<th>X2 (national interest)</th>
<th>Y (change in international climate commitments)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-2012</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2012-2015</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
Appendix B: Carbon Intensity Reduction Quota for Areas in the 12th FYP\textsuperscript{144}

<table>
<thead>
<tr>
<th>Area</th>
<th>Carbon intensity reduction (%)</th>
<th>Energy intensity reduction (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beijing</td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td>Tianjin</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>Hebei</td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td>Shanxi</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Neimenggu</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>Liaoning</td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td>Jilin</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Heilongjiang</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Shanghai</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>Jiangsu</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>Zhejiang</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>Anhui</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Fujian</td>
<td>17.5</td>
<td>16</td>
</tr>
<tr>
<td>Jiangxi</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Shandong</td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td>Henan</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Hubei</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Hunan</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Guangdong</td>
<td>19.5</td>
<td>18</td>
</tr>
<tr>
<td>Guangxi</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>Hainan</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Chongqing</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Sichuan</td>
<td>17.5</td>
<td>16</td>
</tr>
<tr>
<td>Guizhou</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>Yunan</td>
<td>16.5</td>
<td>15</td>
</tr>
<tr>
<td>Xizang</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Shanxi</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Gansu</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>Qinghai</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Ningxia</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>Xinjiang</td>
<td>11</td>
<td>10</td>
</tr>
</tbody>
</table>