AUTHORITARIAN DECISION-MAKING AT THE INTERFACE OF THE STATE, SCIENCE, AND THE PUBLIC:

Politics of Biodiversity Conservation and Biosafety Regulations in China

by

Li Guo

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The following individuals certify that they have read, and recommend to the Faculty of Graduate and Postdoctoral Studies for acceptance, the dissertation entitled:

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Examining Committee:

Yves Tiberghien, Department of Political Science

Supervisor

Mark Warren, Department of Political Science

Supervisory Committee Member

Timothy Cheek, Department of History

Supervisory Committee Member

Lisa Sundstrom, Department of Political Science

University Examiner

Amy Hanser, Department of Sociology

University Examiner

ABSTRACT

Science and technology are an inherent part of political decision making in modern times. How do decision makers balance legitimacy, power and knowledge? Existing literature on the issue only focuses on liberal democracies and neglects authoritarian regimes in both theoretic and empirical investigations. In particular, it cannot answer how authoritarian regimes respond to challenges in governance, particularly ones rising from technically complex and uncertain policy fields such as biodiversity conservation and climate change.

My research addresses this issue by investigating how scientifically complex international environmental norms are filtered through the systems of expert consultation and public contestation in an authoritarian political system. Drawing on 150 semi-structured interviews conducted between 2015-2019, my dissertation examines the policy processes in China's nature conservation and biosafety regulation, and seeks to explain how the authoritarian state significantly strengthened biodiversity conservation in these two issue areas while the developmental and vested interests were stacked against them.

Building on Jurgen Habermas' three normative models, I first propose a typology of authoritarian policy decision-making at the science-politics interface, including *authoritarian decisionist*, *technocratic*, and *public contested models.* While all three models are present in China's biodiversity governance, a "*state-corporatist technocracy*" model stands out as a more routine type of consultative decision making that often boils down to a bureaucratic-scientist alliance against environmental norms.

I argue that two factors—the political salience and knowledge-based collective actors—are key to overcome this problem for the successful diffusion of environmental norms. In particular, I find that an emerging domestic *epistemic community* in protected areas and a knowledge-intense *proxy civil society* at the state-society nexus in biosafety regulation play critical roles in the norm contestation. Using a modified Multiple Stream Framework in the former and drawing on social movement theories in the latter, I identify how strategic trade concerns and changes in the party's leadership raised the political salience, enabling the collective idea agency to shape policy.

LAY SUMMARY

In modern times, regimes all need to face challenges rising from governing issues that are scientifically complex and uncertain. When an authoritarian regime increasingly leans on expert consultation to seek legitimacy for its decisions on those issues, what are the implications for the public goods provisions such as environmental protection? My research investigates China's biodiversity conservation and biosafety regulations and looks into the dynamics at the interface of the state, science and the public in the decision process. It shows that a bureaucracy-dominated technocratic decision model tends to advance developmental or departmental interest at the cost of the environment. To contest these decisions, collective actions need to overcome hurdles in two key aspects: knowledge capacity and mobilization power from the decision core. And their success both depends on some kind of major legitimating act of the state at the leadership level.

PREFACE

This dissertation is an original, independent work by the author, Li Guo.

Chapter 6 is coauthored with Professor Yves Tiberghien in Political Science Department at the University of British Columbia.

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LIST OF ABBREVIATIONS

BWG—Biodiversity Working Group
CAE—China Academy of Engineering
CAS—Chinese Academy of Sciences
CBD—Convention of Biological Diversity
CCA—China's Consumer Association
CCICED—China Council of International Cooperation and Environmental Development
CCTV—China Central Television
CCP—Chinese Communist Party
CEPF—China Environmental Protection Foundation
CFCs—Chlorofluorocarbons
CFDA—China Food and Drug Administration
CI—Conservation International
CITES—Convention on International Trade in Endangered Species of Wild Fauna and Flora
CNBR—Chinese Network of Biosphere Reserves
COP—Conference of Parties
COVID-19—Corona Virus Disease 2019
CP—comparative politics
CPB—Cartagena Protocol on Biosafety
CPPCC—Chinese People's Political Consultative Conference
CRISPR—clustered regularly interspaced short palindromic repeats
DRC—Development Research Center
DSD—the Division of Social Development
ENGOs—environmental non-governmental organizations
EPB—Environmental Protection Bureau
EPRCC—Environment Protection and Resource Conservation Committee
EU—European Unions
FA—fragmented authoritarianism
FACA—Federal Advisory Committee Act
FAO—Food and Agriculture Organization
G7—Group of Seven
GDP—Gross Domestic Product
GEF—Global Environment Facility
GEI—Global Environment Institute
GIAHS—Globally Important Agricultural Heritage Systems
GMOs—genetically modified organisms
GONGOs—Government-Organized NGOs
GP—Greenpeace
GRAFS—Global Protected Area Friendship System
INUS—Insufficient but Necessary condition for an Unnecessary but Sufficient Condition
IOs—International Organizations
IGOs—Inter-Governmental Organizations
INGOs—International Non-governmental Organizations

IUCN--the International Union for Conservation of Nature
IUCN SSC—IUCN Species Survival Commission
IUCN WCPA—IUCN World Commission on Protected Areas
LSGs—Leading Small Groups
MAB—Man and Biosphere Program
MEE—Ministry of Ecology and Environment
MGMR—Ministry of Geology and Mineral Resources
MSF—Multiple Stream Framework
MMSF—Modified Multiple Stream Framework
MNC—Multiple National Corporations
MNLR—Ministry of National Land and Resources
MNR—Ministry of Natural Resources
MOA—Ministry of Agriculture
MOC—Ministry of Culture
MOF—Ministry of Forestry
MOH—Ministry of Health
MOHURD—Ministry of Housing and Urban-Rural Development
MOST—Ministry of Science and Technology
MURCEP—Ministry of Urban and Rural Construction and Environmental Protection
MWR—Ministry of Water Resources
NDRC—National Development and Reform Commission
NEPA—National Environmental Protection Administration
NGA—National Grain Authority
NGO—Non-governmental organizations
NHCL—Natural Heritage Conservation Law
NP—National Parks
NPAA--National Parks Administrative Agency
NPC—National People's Congress
NPCSC—Standing Committee of the NPC
NR—Nature Reserve
NTA—National Tourism Administration
PA—Protected Areas
PKU—Peking University
POS—political opportunity structure
PRC—People's Republic of China
PTFA—the protected areas task force
R&D—research and development
ROC—Republic of China
RMB—Renminbi
SA—Scenic Areas
SAQSIQ –State Administration of Quality Supervision, Inspection and Quarantine
SEPA—State Environmental Protection Agency
SFA—National Forestry Administration
SMOs—social movement organizations

SOA—State Oceanic Agency/Administration
SPS—Sanitary and Phytosanitary Measures
STCM—Set Theory Comparative Method
TFs—Task Forces
TNC—the Nature Conservation (TNC)
TPP—Trans-Pacific Partnership
TWN—Third World Network
UN—United Nations
UNESCO—United Nations Education, Science, and Cultural Organization
UNEP—United Nations Environment Programme
UNDP—United Nations Development Programme
U.S—the United States
WCMC-- World Conservation Monitoring Center
WB—World Bank
WCS—Wildlife Conservation Society
WDPA—World Database on Protected Areas
WGs—Working Groups
WTO—World Trade Organization
WWF—World Wildlife Fund

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INTRODUCTION

How do authoritarian regimes respond to challenges in governance, particularly ones rising from technically complex and uncertain policy fields that bear strong international and domestic implications such as biodiversity conservation and climate change? Do autocrats have more advantage to embrace science and knowledge while short circuiting civil liberties and public participation in the decision-making process? How do they balance legitimacy, power and knowledge? Where do the policy ideas (alternatives) come from, and how do some policy ideas prevail over others in the contested policy-making process?

Science and technology are an inherent part of political decision making in modern times. Concerns over the erosion of democracy through the technocracy or the scientification of politics, as Habermas (1971) put it, are heightened by the rise of risk issues, the solutions to which are often incomplete, complex and uncertain. Liberal democracies respond to these challenges with social movements and institutional innovations to ensure transparency and accountability while, in non-democratic settings, the interface of the state, science and the public remains largely unknown, even to theorists of authoritarianism.[1]

My research attempts to fill in these theoretical gaps and open up the black box of authoritarian decision making by investigating how scientifically complex international environmental norms are filtered through the systems of expert consultation and public

[1] A recent exception is Calvert Jones' research on the expert consultation in the middle east autocratic regimes. Jones, Calvert W. "Adviser to The King: Experts, Rationalization, and Legitimacy." *World Politics* 71, no. 1 (2019): 1-43.

contestation in a constrained political system. It examines the policy trajectories of two prominent domains of China's biodiversity conservation, nature conservation and biosafety regulation, and seeks to explain how the authoritarian state managed to significantly and surprisingly strengthen biodiversity conservation in these two issue areas while the developmental and vested interests were stacked up against them.

Conservation through protected areas and GMO regulations are two important planks of China's biodiversity conservation endeavors. Despite its reputation as an environmental laggard, China has not only built up a massive system of nature conservation nearly from scratch, but also undertaken intensive efforts to reform its increasingly entrenched but ill-functioning conservation institutions. Puzzlingly, after a stream of futile attempts, China made an unexpected radical overhaul of its ad hoc conservation system and embraced a unified system of protected areas consistent with internationally prevailing norms while facing strong resistance from vested interests. On the biosafety front, China has been one of the leading states in biotechnology development since the 1990s. However, it not only took an abrupt turn to install a precautionary regulatory system over agricultural GMOs in the face of the state's enduring developmental industry policies promoting the strategic sector, but also has kept these regulations entrenched after the initial political and economic incentives from the top faded away and pressures from the science-industry complex in bio technology continued to mount.

As a developmental state, China has *institutionalized broad and intensive expert consultation* in the complex and risk issue areas. And the two biodiversity conservation domains demonstrate that China is particularly keen to rely on expert consultation in complex and risk

issue governance in the post-Mao era. But how did the state, scientists and public interact in the policy-making processes leading to the two successful cases in enhancing biodiversity conservation?

Borrowing Jurgen Habermas' three normative models and modifying them to fit the authoritarian political context, I first propose a typology of policy decision making comprised of three models (pathways) at the science-politics interface, including *authoritarian decisionist*, *technocratic*, and *public contested models.* Each of these three models can lead to pro- or anti-environment policy decisions. This typological construct not only allows us to characterize and compare a decision-making structure, but also carves out the analytical space needed for us to explain how policy ideas are introduced, contested and filtered through, and why some ideas prevail over others.

The policy-making processes in China's nature conservation and biosafety regulation serve as great case examples of the authoritarian decision-making types. While I identify both the *authoritarian decisionist model* and a surprisingly impactful *participatory/public contested model*, the "*state-corporatist technocracy*" model stands out in prevalence as a more routine type of consultative decision making. This is a technocratic model in which the state relies on extensive and inclusive expert consultation for decision making. Given the fragmented nature of Chinese state bureaucracy and the embeddedness of scientists and experts within the state, *the state corporatist technocracy* often boils down to a prevailing *bureaucratic-scientist alliance*, with the scientists endorsing policy solutions aligned with dominant bureaucratic interests, instead of a science-based consensus. This means a science-based environmental norm is less likely to trump if it is not aligned with dominant bureaucratic interests.

How can the environmental norm prevail, if the bureaucratic-science alliance is not in favor of it? Wielding theories of public policy and social movements literature, I examine the decision-making processes of the two biodiversity cases, with particular interest in the variation of the political variable (regime and state factors), the knowledge agency (knowledge-based norm agency) and the public participation, and their impacts on decision makings.

I argue that first and foremost the political factors need to be favorable for any of the three models to lead to environmental norm victory when lacking support from the bureaucratic-science alliances. This means *political salience*, i.e, the perceived political and strategic importance of the issue to the party leadership must be high; or additionally, when in rare cases the high salience is largely the result of the public mobilization, the *political legitimacy*, i.e., the acceptance of the public mobilization with freedom from crackdown by the state, is needed. On the other hand, the availability of norm-based scientific research and ideas, especially if backed up by some knowledge-based collective idea agency, is crucial for the victory of the norm. While the two conditions are in a dynamic relationship in each model, both are still essential to the norm success in an adverse science-policy interface. I substantiate these points at the case level:

Case one: drawing on a modified Multiple Stream Framework (MSF), I demonstrate that China's surprise adoption of a protected area system can be accounted for by the emergence and contestation of a collective knowledge agency—an epistemic community, or a network of authoritative scientists and experts who share a normative and causal consensus in their professional fields. Their policy impact was enabled by the changing political salience created by Xi Jinping's National Park reform. I argue that the higher political salience enhances the need

of bureaucratic decision makers to seek justification and legitimacy, therefore increasing the appeal of the epistemic community (Chapter 1-5).

Case Two: using China's East Asian neighboring countries Japan and South Korea as the comparative cases, we seek to understand how the anti-GMO public contestation is possible in the absence of a mobilization structure due to the authoritarian constraints. We identify an unusual set of actors working at the nexus of the state and society as a *proxy civil society* for their functions similar to their civil society counterparts. Drawing on social movement theories, we further examine the political openings, the opportunity structure as well as the consequences of this particular pathway of mobilization and norm diffusion against a pro-GMO technocratic alliance (Chapter 6, coauthored with Dr. Yves Tiberghien).

In the remainder of this introduction, I first propose an authoritarian science-policy typology; and then present the three decision models in China's biodiversity conservation in two domains. In part three I elaborate on the theory and arguments of two cases at both the science-policy typology level and the micro-level; after a discussion of the data and methodology, I lay out the contributions and limitations of my research. This is followed by a roadmap about the chapters in the concluding part.

Decision making in the complex and uncertain issue areas:

Democracy and Authoritarianism

I / The Debate: Governing Complex Issues in Various Regimes

Modern states rely on science and technical solutions in making decisions. However, the practice of science follows its own logic and creates its own authority in seeking truth. Since the time of Weber, the instrumental rationality presented by science and scientific knowledge has been perceived as the ultimate antithesis to human values in modernity, thus posing threats to democracies if the boundaries between the ends and means are blurred or crossed, particularly in the form of technocracy or scientization of politics as articulated by Jurgen Habermas (1971). The most challenging scientific issues in Habermas' time included nuclear weapons and the space competition, but, in more recent times, technological complex issues have developed new traits making the role of science in policy decisions even more complicated. Characterized by a label of 'risk' (Beck 1992, 1996, 2009), these issues need to be tackled from multiple-faceted aspects, beyond any single and conventionally segmented discipline and institute, across global, national and local levels and over unpredictable trajectories. Thus, the policy-related knowledge becomes incomplete and uncertain in addition to being value-latent. As a result of this transdisciplinarity in knowledge production (Gibbons 2002), 'incoherence, not consensus, is the normal epistemological condition in many domains of policy relevant knowledge.' (Janasoff 2005, 211). Experts' opinions are recognized to rest as much on their subjective judgement as on supposedly value-free knowledge. This is clearly manifested in issues of great importance in our time such as climate change, biotechnology, environmental safety, food security, just to name a few.

States vary in their arrangements in response to challenges rising from policy decision making in these areas. While embracing the scientific expertise in the decision making, liberal democracies need to maintain democratic legitimacy by countervailing not only technocracy

but also increasingly the corporate interests invested in the science research that short-circuits democratic decision by excluding the public. Social movements and mobilization of public opinions have emerged in these issue areas, pushing for roundtable discussions, open forums and other public participation channels while exerting influence through electoral mechanisms (Massen & Weighart 2005; McComick 2007); meanwhile, institutions are put into place to regulate scientific advising for credible expertise, transparency and accountability, and for citizens to closely scrutinize expert opinions and deliberate with them in the decision making process. The U.S government issued Federal Advisory Committee Act (FACA) in 1974, for example, sought to ensure the openness and transparency in the operation of Federal committees. And innovative institutions such citizen juries, consensus conferences, deliberative polls, citizen assembly (British Columbia, Canada) and Citizen Council (Belgium) pop up as similar examples of mechanisms for 'democratization of expertise'.

Authoritarian regimes face similar technical challenges in governing increasingly complex and uncertain issues. How much do they embrace the scientific advice and public opinions in the decision making? How do they make decisions in balancing power, science, and legitimacy? After all, with the lack of electoral accountability and freedom in information and association, authoritarian states can easily manipulate both knowledge production and public opinions. However, they also need to govern with legitimacy, whether it is pure performance legitimacy (Huntington 2006), hegemonic power based on culture and ideology (Gramsci 1971; Moufee 2014), or legal-rationalized institutions and limited participation (Nathan 2017; Gandhi & Przeworski 2007). For authoritarian regimes to sustain, they cannot do without any rationality and responsiveness to the public. So, what are the rationales and mechanisms that

authoritarian states use to adjudicate contested and competing ideas often supported by different scientific evidence and social interests? How are the public involved in such processes?

Existing literature provides important theoretical roadmaps and references but pays little direct attention to these questions. They are primarily normative oriented, exclusively focusing on liberal democracies and segmented into a few academic fields. First, theoretical development in these issue areas has evolved heavily around normative issues about democratic legitimacy and accountability. This line of inquiry has intellectual roots in classic political theory and was pushed to the forefront of theoretical debate by Jurgen Habermas (Habermas 1971; Jasanoff 1992,2005). As a result, both their prescriptive ideal types and empirical models are derived from the institutions and reforms in advanced liberal democracies, with some exceptions of recent interests in testing the effects of deliberative institutions in less developed and non-democratic settings, overwhelmingly at the local level and not focusing on technically uncertain issues (e.g., Fishkin et al 2010; He & Warren 2011, 2017). Another major caveat is that public mobilization and social movements in these policy issue areas, almost all involving environmental and social impacts, are separately addressed in social movement literature, while the role of scientific knowledge is by and large ignored (e.g., McAdam 1996; Pellow 2001). Peter Haas' work on epistemic community (1992) is an exception. It singles out a case scenario when scientific authoritative figures line up behind a policy stance and make a decisive impact on an international treaty in collectively tackling a risk issue. However pathbreaking this work is, the institutional aspects and theoretical implications of the epistemic community haven't been adequately explored in comparative studies or with more

general extrapolation. Challenges to authoritarian responses also rise from a particular dimension, often referred to as the international diffusion of norms, particularly those originating from international treaties and governance networks in a global liberal order. In current research literature on norm diffusion of technically complex issues, the regime type is often downplayed, either with liberal democratic institutions being taken as a default setting or scope limitation, or by generating theories above and beyond regime types, the applicability of which to non-democratic political institutions is not systematically tested. Put simply, we have barely scratched the surface of the theoretical understanding the relationship among the state, science (and expertise) and the public in the technically complex and uncertain issue areas in the authoritarian regime.

II / A HABERMASIAN TYPOLOGY OF GOVERNANCE MODELS

My research attempts to fill in these theoretical gaps and open up the black box of authoritarian decision making by investigating how scientifically complex international environmental norms are filtered through the systems of expert consultation and public contestation in a constrained political system. Borrowing Habermas' three normative models and modifying them to fit the authoritarian political context, I first propose a typology of policy decision making comprised of three models (pathways) at the science-politics interface, including *authoritarian decisionist*, *technocratic*, and *public contested models*.

A Habermasian *decisionist model* is when the policy ends need to be formulated, negotiated and decided "irrationally" by the public decisionmakers only, completely separated from scientists and experts who are to provide instrumental means to the policy goals; a

technocratic model suggests that policy problems can only be solved by experts, not the politicians, due to the complex nature of the policy issues; and a *pragmatist model* is a mode of knowledge co-production based on communication, in which "a (public) discussion between scientific experts, policymakers and the citizenry about value-laden problem formulations, policy ends and means is desirable under the condition that certain formal, fair rules are complied with" (Kowarsh 2016). These models are normative in the sense that the decision makers are democratically endorsed (in *decisionist model*) or delegated (in the *technocratic* model), or directly joined by the lay people (as in the *pragmatist* model). In contrast, my three models are merely ideal-typical: they take out the democratic leadership and accountability dimension from Habermasian typology in the first two authoritarian models and replace the experimental deliberative institutions and practice in the third *pragmatist model* with social movement and public mobilization. To be clear, the public contested model thus does not have the deliberative component key to the "*pragmatist model*" but is reflective of the situation in authoritarian regimes where major decisions in the risk areas, mostly at the national level, do not involve deliberative processes directly consulting with the citizenry in informed fashions as prescribed by deliberative democracy theory.[2]

Table 1.1: Ideal Typical Science-Policy Interface, Democratic and Authoritarian

[2] It would be interesting to theorize the direct public consultation in the authoritarian decision making process such as through top-down investigation trips and academic research surveys, and more formally, online public inputs solicitation and public hearings (at more local levels and often project-specific and sometimes price-related). Local experimentation is another avenue for the information flow from bottom to the top. In my cases, some of these forms of consultation and public participation are subsumed under the categories of technocracy and public contestation models, respectively.

Habermasian typology	Decisionist	Technocratic	Pragmatist
Authoritarian typology	Authoritarian Decisionist	Technocratic	Public contested

Table 1.2: Comparing the two typologies

	Habermasian typology	Authoritarian typology
Decisionist	• "Irrationally" decided policy ends by policy makers; • Rationally decided policy means by experts. • Democratically elected policy makers	• "Irrationally" decided policy ends by policy makers; • Rationally decided policy means by experts.
Technocratic	• Both ends and means are decided by scientists and experts; • Problems are possibly formulated by the public	• Both ends and means are decided by scientists and experts
participatory	• *Pragmatist model* ○ Co-production of policy knowledge	

	○ Deliberation between the state, experts and the public in decision making.	
		• *Public contested model* ○ Social movements and public mobilization in public sphere

This typology is a heuristic exercise, not meant to be exhaustive and mutually exclusive. There might be other important types and subtypes as well, not captured in this scheme. However, the purpose of this typology is to create a framework of references to anchor the analysis in a comparative fashion. For example, it is now possible, upon substantiating the types, to ask what characterizes an authoritarian regime's decision-making process in terms of the three models, what the defining features are for a model in specific states or policy domains in terms of the relationship among the public, experts and the state, why this is the case, and the implications for policy decisions. More importantly, this typological construct allows us to explain through what decision-making structure and by what agency the policy ideas are introduced, contested and filtered through, and why some prevail over others.

I investigate these questions in two prominent policy areas in China's biodiversity conservation domain, nature conservation and biosafety protection. Both issue areas are scientifically complex in nature, and with the latter bearing a particularly high level of uncertainty and without a global epistemic community united behind the environmental cause.

Both have demonstrated certain levels of contestation over the internationally originated norms and ideas. China's biodiversity politics thus provides a useful prism to understand policy making at the state, science and the public interface, particularly regarding the global norm diffusion in scientifically complex issue areas in a tough political and economic system of an authoritarian developmental state.

Habermasian Typology in China's Conservation Areas Reforms and Biosafety Regulations

As the country develops economically, the authoritarian decision makers are challenged domestically and internationally on how to govern complex and uncertain issues. In response, authoritarian states have strong incentives to seek experts' inputs through extensive consultation in the decision-making process, especially given the lack of other democratic channels for getting policy inputs and claiming legitimacy.

The Chinese state has increasing needs to rely on technical knowledge and expertise in order to gain rationality and legitimacy for its decisions, and this contributes first to the thriving of expert consultative institutions and practices across the board; and second, to the emergence of a vibrant and thick networks of scientists, scholars, experts, professional practitioners and bureaucrats familiar with the issues in respective policy fields. In a party state regime, the prevalence of semi-institutionalized expert consultation is evidence of the importance of scientists and expert communities to the regime's resilience as the country further modernizes and urbanizes (Wang & Fan 2013; Kornreich, Vertinsky & Potter 2012; Zhu 2008; Kornreich 2019).

China has institutionalized broad and intensive expert consultation in the complex and risk issue areas. Biodiversity conservation is one such complex issue field. Applying the authoritarian typological framework to China's biodiversity politics, I examine the general trends and decision-making structures at the science-policy interface in China. My findings are as follows.

I/ Extensive Expert Consultancy in Biodiversity Politics

Combating biodiversity loss is a complicated endeavor that not only requires institutional and administrative capacities but also scientific and policy expertise on many grounds. Biodiversity protection efforts range widely from in-situ to ex-situ conservation, covers subjects from ecosystems to genetic resources, as well as aims that range from preserving Indigenous cultures and local community livelihoods to fighting climate change. While they are primarily tackled within the national borders, over the past half century, international coordination has risen drastically on these issue fronts, providing normative guidance and technical support for conservation decision making at all levels. China's biodiversity conservation took off roughly in parallel to its participation in the international community in the 1970s. China joined many international organizations and signed onto many international treaties, including the global governance framework, Convention for Biological Diversity (CBD) under the United Nations (UN) in 1992, and its supplementary agreements, the Cartagena Protocol on Biosafety (signed in 2000) and the Nagoya Protocol on Access and Benefit-Sharing (approved in 2016).

Conservation through protected areas and GMO regulations are two important fronts of China's biodiversity conservation endeavors. In both domains, I observed the steadily rising trends in both semi-institutionalized expert consultation and growing expert networks.

In GMO politics, there is a highly formal advisory body, the National Biosafety Committee on Agricultural Genetically Modified Organisms, comprised of sixty to eighty leading scientists and experts that is supposedly in charge of making key decisions in GMO issues. The protected areas reform does not have a comparable centralized advisory body, but, similar to GMO policy, the functional departments and their associated research institutes and think tanks all have research teams and frequently organize symposiums, workshops and meetings. The leading organizations of the protected areas reform consultation shifted over time, from a unique inter-governmental advisory organization[3] in the early 1990s to the legislative committee in charge of environmental protection and natural resources in China's congress, National People's Congress (NPC) in the 2000s, and later to the national planning agency, National Development and Reform Commission (NDRC). These agencies all initiated extensive consultative sessions to inform their decision making.

A thick network of key scientists and experts have emerged in both fields over the past two decades. This is a result of the development from both the demand and supply sides, through general but exponential development in science and technology, strategic state cultivation of a professional and talent system, intense international exchange and collaboration, as well as increasing professional development planning and local multiplication of eco-themed

[3] China Council of International Cooperation and Environmental Development (CCICED).

development projects partly resulting from the pressure to shift away from a extractive and pollution-based economy.

II/ Three Decision Models in Politics of Biodiversity

The three models of authoritarian science-policy interface are revealing of the structure and dynamics underlying the key decisions in China's politics of biodiversity conservation in two domains. In contrast to China's common authoritarian image of being either a simple top-down, ideologically-dominated and politically-determined decision model, or a sweeping authoritarian environmentalism/technocracy (Gilley 2012), I find that in China's complex and uncertain policy domains the *authoritarian technocracy* and specifically, a "*state-corporatist technocracy*" model, prevails as a more routine type of consultative decision model; in addition, there are occasionally signs of some *authoritarian decisionist model* and surprisingly impactful *participatory/public contested model*. The manifestation of these three models in the biodiversity politics is discussed below.

The authoritarian decisionist model

The least participatory and consultative among all three science-policy models, *the authoritarian decisionist model* is still different from a pure top-down command model due to its reliance on expert opinions. However, the decision makers simply draw on science and expertise that is directly useful to their political and policy goals without going around the room for diverse points of views in repeated rounds of deliberation.

This has been observed in at least one case of my research, e.g., China's initial adoption of and the abrupt turn from a pro-GMO system to a precautionary stance in agriculture GMO regulations in the early 2000s (Chapter 6). At that point, neither the science community nor the societal forces were pushing for a shift from a full-speed pro-GMO developmental stance to a precautionary outlook. It was the direct intervention from the top political leaders, assisted by a small group of experts in an intense and short period of time that changed the course of China's GMO development and biosafety regulation to a drastically different direction.

A similar case can be found in China's major forestry policies in late 1990s. When the central Yangtze basin was flooded in the summer of 1998, the state quickly put the blame on the deforestation on upper Yangtze watershed and, in response, three national policies were immediately adopted, including a total logging ban in the upper Yangtze basin and the commencement of two of the largest forest protection programs in PRC's history (Robbins & Harrell 2014). Neither of the two programs were thoroughly deliberated before their sudden onset in front of the national audience's eyes.

The *authoritarian decisionist model* fits with an image of the party state controlling the policy goals while utilizing science as instruments to achieve them; however, this is not as common as many people would believe, at least in the issues areas I studied. One obvious factor contributes to this rarity, and that is not many issues rise to the level of national and international salience as China's WTO entry or the national catastrophe of the 1998 flood that drew the direct intervention from the highest levels.

The public contested model

A participatory mode of science-policy interface is of great interest to the research of authoritarianism as it touches on the fundamental dilemma of authoritarianism in which the institutionalized public participation and representation through elections and civil liberties are suppressed while the regime has to govern to gain the approval of the people, or to prevent revolts, at the least, in order to hold on to power.

In China's risk issue areas, the institutionalized participation of the public for decision making is limited, often through an inclusive expert representation system, namely the *state-corporatist technocratic model* (see below), and the mandatory process of public opinion solicitation in the planning or legislating processes, a practice starting from the early-to-mid 2000s. In general, the party state creates a "double mobilizing structural deficit" in its control of idea flows and suppression of civil society organizations (Chapter 6). In addition, existing NGOs are found to be less inclined to become professional, or epistemic communities (Hsu & Hasmath 2017). As social mobilization in the complex issue areas naturally needs intermediary professional organizations to dissipate or dispute the scientific knowledge key to the decisions (McCormick 2007), this NGO orientation has negative implications for social mobilization and public contestation in China. As a result, most public contestation in the risk issue areas have been seen at the project level such as with environmentally hazardous chemical plants and waste treatment sites, typically characterized as NIMBYism (Johnson 2010; Gu 2016) and local environmental protests. Large scale hydro projects such as dams are similarly contested at the project level, mostly at local sites as well (Mertha 2008).

In comparison, GMO politics at its later development stage stand out as an exception for its sustained national mobilization and broad societal involvement at the national regulatory

level. It demonstrates a strong and puzzling public contested mode of policy-science interface (Chapter 6). In the decades following the mid-2000s, GMO safety became the most freely and fiercely contested policy topic in China, creating a prominent sector of China's contentious public sphere (Lei 2016) or authoritarian public sphere (Dukalskis 2017) and keeping the developmental state agenda in check, despite the lack of civil society infrastructure.

State-Corporatist Technocracy

Despite the presence of the *decisionist* and *public contested* models, technocracy represents a more routinized and prevalent model of science-politics interface in China's risk fields. A controlled but inclusive expert consultative process through various formal and informal venues has become an inherent part of the bureaucratic decision making in China.

Why is it a "*state-corporatist technocracy*"? This technocracy is first and foremost a state-controlled expert consultation mode in which the state sets up formal and semi-formal consultative and advisory committees, forums, conferences and other institutions for key decisions. It is a *state corporatist* technocracy in the sense that the consultative panels are inclusive of scientists, scholars, experts and bureaucrats representing almost all relevant national government agencies, academic disciplines, and some social groups including prominent international organizations, similar to corporatist science-policy arrangements in some European states (Brown 2005). The general public and lay people are excluded, but some of the experts and bureaucratic agencies, in addition to the few invited NGOs, supposedly represent them in a delegated way. To be sure, this delegation is not anything like the representation of the workers by the unions in the Northern European context, which is

institutionally binding and accountable. As aforementioned, a majority of China's NGOs are often less interested in becoming epistemic communities (Hsu & Hasmath 2017), and their chance to be consulted at the expert's table is limited as a result, as is their abilities to represent the public.

In biodiversity conservation, the protected areas reform decisions exclusively follow this state-corporatist technocratic model (see Chapter 4 to 5). From the very start, the protected areas reform has been framed by the state and experts as a technical and complex national policy problem that explicitly ruled out the general public and lay people's direct inputs. The consultation took place tightly at a bureaucrats-experts interface at the top government level. Therefore, the politics of the reform was confined within a *state-corporatist technocracy* model, without the general public's participation and contestation (Chapter 3).

A state-corporatist technocratic model also underlies GMO decision making. However, the critical decisions on GMOs were overtaken by a *decisionist* model in the early 2000s, and a *public contested* model in later stages (Chapter 6).

The following section introduces the theories and arguments about the norm prevalence despite the existence of bureaucrat-scientist coalitions that resist the environmental norms out of developmental or established interests in these two cases.

Pathways to Environmental Norm Adoption in Nature Conservation and Biosafety Regulations

I/ A *Bureaucratic-Scientist Alliance* in the *State-Corporatist Technocracy*

Given the fragmented nature of Chinese state bureaucracy and the embeddedness of scientists and experts with the state, *the state corporatist technocracy* often boils down to a prevailing ***bureaucratic-scientist alliance,*** with the policy solutions aligned with dominant bureaucratic interests, instead of a science-based consensus. A clear example is the legislative proposal that aimed to enact an ad hoc Natural Heritage Law to solve the protected areas crisis. This proposed legislation was not technically convincing but almost managed to gain the approval of the policy community and get enacted because it built a winning coalition among some of the leading bureaucratic players, while leaving the rest in status quo without hurting their fundamental interest. Scientists and experts spoke out on their opinions in the consultation process, but most of them were ready to fall in line with the bill (Chapter 5). What this exemplifies is how the Chinese government generally operates in a technocratic fashion in the complex and uncertain issue areas, in which the bureaucrats and experts align to make decisions.

Despite the suppressed civil society, a weak environmental protection agency and the embeddedness of the science community with the state, an authoritarian developmental state like China can still adopt environmental norms through these science-policy pathways under certain circumstances. I argue that two factors—*the political salience* and *knowledge-based collective actor*s—are key to overcome this problem for successful diffusion of environmental norms. I argue that first and foremost the political factors need to be favorable for any of the three models to lead to environmental norm victory when lacking support from the bureaucratic-science alliances. This means *political salience*, i.e., the perceived political and strategic importance of the issue to the party leadership must be high; or additionally, when in

rare cases the high salience is largely the result of the public mobilization, the *political legitimacy*, i.e., the acceptance of the public mobilization with freedom from crackdown by the state, is needed. On the other hand, the availability of norm-based scientific research and ideas, especially if backed up by some *knowledge-based collective idea agency*, is crucial for the victory of the norm. While the two conditions are in a dynamic relationship in each model, both are still essential to the norm success in an adverse science-policy interface.

Issue salience is a vague concept in political science and often refers to the degree of the importance reflected in the individual attitudes and behaviors, especially in voting (Dennison 2019). My use of the political/issue *salience* refers to the elite perception of the importance of the issue, not those at the voter or individual level.

The Political Salience of an issue is related to but also distinguished from a *perceived strategic value framework* as highlighted in Hsueh's well-known explanations of the state regulation of market and industry in China's development models (Hsueh 2011, 2012, 2016). While accounting for the sectoral variations of state regulation, Hsueh argues that the state elite decision makers' perceived economic and political value of a sector affects key aspects of state regulatory regimes including the levels of state control, centralization of coordination, distribution of property rights, etc. Perceived strategic value thus offers an important framework to understand state perceptions and incentives, particularly in forming industry policies.

Instead of focusing on measuring the structural, political and institutional contributors underlying the perceived values of the sector in the eyes of the state, political salience in my

theory is a broader and more general concept, not solely confined to economic sectors; and more importantly, it emphasizes the degree to which the state elites pay attention to and, to paraphrase Krosnick (1990, 60), are "passionately concerned about" the issue, as often indicated by the intensity of public discourses and opinions, on the one hand, and the manifested prioritizations in narratives and signaling acts in the state's agenda setting and general policy process, on the other.

Political *legitimacy* in this approach also conveys a different meaning from the normal political science concept of accepting political authority; on the contrary, the use of the term here indicates the regime's acceptance and recognition of something or someone as right and proper. This is a behavioral and empirical concept that is particularly relevant to the research of social movements and contentious politics in authoritarian regimes which can crackdown on collective actions arbitrarily.

The collective idea agency refers to organizations, networks and alliances that are epistemically and organizationally capable of advocating, campaigning, lobbying and mobilizing for the cause of the norm. My research finds that the effective norm agency in the complex and uncertain issue areas share some particular commonalities. First, they are highly knowledge-based organizations or networks with officially or internationally endorsed or widely-perceived authority and credibility for their scientific knowledge and expertise; and they work either from within the state or at an arm's length with the state. This latter point is not as intuitive as many China scholars familiar with civil society NGOs would believe if we take into account that one key actor in GMO regulation is the famous international environmental organization,

Greenpeace. In Chapter 6 we discuss how Greenpeace China created a very interest-neutral and objective image of a scientific authority and worked in close partnership with the state during the first decade of its GMO campaign in China. Related to the Greenpeace example, is the third trait of the collective idea agency, a strong international presence. Given China's deep integration into a global world, the lack of close scrutiny and theorization of international influence on policy making is stunning. In both cases, international actors either directly or indirectly involved in lobbying and campaigning activities transmitted ideas and influence through local actors.

Issue salience and collective idea agency are in a dynamic relationship, but both are essential to the norm success. How do they work together to overcome the adverse bureaucratic-scientists alliance and lead to the success of the environmental norm? In general, the scientific legitimacy the knowledge agency carries gives it a boost when the political leaders and bureaucratic decision makers seek more justified and legitimate policy solutions under the heightened political salience of the issue. I substantiate these points in the two case domains in biodiversity conservation, now briefly introduced in the following section.

II/Case ONE: Epistemic Community and Conservation Area Reforms

China's protected areas reform represents key features of a *state-corporatist technocratic* decision model. The reform unfolded in a process of constant consultation between the bureaucrats and experts, who formed various alliances against a sweeping protected area reform. The success of the norm of a unified protected area system can be explained by the rise of the novel collective actor in China—the epistemic community. The

conservation epistemic community is represented by a dozen or so outspoken conservation scientists, landscape planning experts, legal and administrative scholars, and international organizational staff including representatives from the IUCN. These experts all believe that biodiversity should be protected, and a unified protected area system consistent with the IUCN standards represented the best way for conservation to proceed in China.

I propose a relaxed and refined Multiple Stream Framework (MSF) as a theoretical framework for explaining the norm change by the epistemic community in the authoritarian technocratic decision making. MSF is agency-centered but also brings to the forefront the regime and state (bureaucratic) factors in the political stream. I modified Kingdon's MSF to suit the authoritarian political context and the modified MSF (MMSF) allows us to investigate how ideas develop through an interactive process of experts and bureaucrats in the decision-making process.

I argue that the development in the political stream, such as the leadership turnovers or an ideology update contributes to the norm change if they bring changes to the **political saliency** of the issue within the authoritarian states. The ramifications of the saliency change are multi-folded. The higher the political saliency, the higher bureaucratic decision makers are pressured to seek *justification and legitimation*; and high saliency can also mean higher *technical feasibility* (Kingdon 1984) of alternatives as greater structural reforms enabled by the high saliency can increase the viability for initially challenging policy solutions.

Essentially, when events in the political stream brings the issue to higher salience, bureaucrats are pressured to seek a policy solution that appears to be more interest-neutral, scientific and rational; and the mobilized epistemic community provide them with all of these.

III/ Case TWO: A Civil Society Proxy and China's Agricultural GMO Regulations

In addition to the main research on biodiversity conservation, my dissertation also devotes one chapter to a different case on the regulation of biosafety and norm diffusion in China, coauthored with Dr. Yves Tiberghien. This is another key area of China's biodiversity governance that generates big puzzles on environmental norm diffusion to authoritarian developmental state.

China's GMO regulation would have been firmly locked in on a pro-GMO track if its initial *technocratic* mode of governance was not disrupted, first by an *authoritarian decisionist* model, and then by a protracted *public contested model*. Since the turn of the century, GMO safety has developed from a topic only meaningful in the party propaganda, to an issue that deeply divided public opinions in China.

As in the conservation areas reform, we found that a collective knowledge agency—a proxy civil society—plays key roles in mobilizing the public and shaping the policy decisions. A proxy civil society is constituted of both state and societal actors who work side by side in promoting a shared cause. Through a converged agenda with the party state, this civil society

proxy coalition propagates its mobilizing frames and draws public support for the norm-latent polices. It essentially serves the civil society functions in a constrained political environment in a similar fashion to its democratic counterparts.

Drawing on social movement theories, we flesh out the political opportunity structure (POS), particularly the shifting political saliency and ideological landscape to account for how a coalition proxy emerges and functions. In the *emerging stage* of mobilization, the POS includes an overwhelming political momentum—China' WTO entry—that provides both legitimacy and unusual state resources to norm-advocacy activism. In the *development* stage, the party's ideological left turn and rise of princelings in the POS provide new legitimacy grounds for the anti-GMO contestation from various social actors.

Methodology, Case Selection and Data

This dissertation is a qualitative research project, with the intention for both theory building and theory testing. It aims to theorize how authoritarian development states respond to challenges in governing scientifically complex issues, particularly in environmental areas when there are prevailing international environmental norms. Deduced from a theoretical inquiry about the decision structure at a state, science and public interface in an authoritarian regime, it creates an overall typology and nests two sets of causal theories and inferences of knowledge-based agency against the background of this typology.

Defined as organized systems of types, typology is a well-established tool in social inquiries (Collier et al. 2012). Typologies are excellent ways for conceptual formation and sorting cases, along with many other functions. By constructing a three-cell typology, I am able

to map out China's decision-making structure in a universally defined conceptual framework with parsimonious dimensions from a previously obscure angle.

The two cases both utilize comparative method in systematic analysis of a small number of cases, or a "small N" (Lijphart 1971; Collier 1993) and within-case analysis in the respective policy domain.

My first case study is a single case in the conventional sense, but it also incorporates comparative methods in the within-case analysis. It is longitudinal and uses the variation within the domain over time to test a theory, in the same logic of the comparative method based on Mill's Method of Difference. By comparing the cases before and after the rise of epistemic community, as well as the epistemic community impacts when the political saliency is high and low, I am able to create a 2×2 case table by using the case observations in different stages at critical junctures and draw causal inferences about the epistemic community and political enabling factors within the authoritarian regime. This process allows us to test the causal relationship of the epistemic community as an Insufficient but Necessary condition for an Unnecessary but Sufficient Condition (INUS) , as coined by James Mahoney (2008), to the adoption of an international environmental norm in a typical authoritarian technocratic decision model, that is when there is no public mobilization (as in the public contested model) or extreme favorable political preferences (as in the authoritarian decision making model), and a bureaucratic-scientist alliance prevails.

The GMO case is set up in a design of comparative method. In putting China's adoption of precaution norm (anti-GMO) in juxtaposition with Japan and Korea which take similar

regulatory stances, my research sets out to find the common mechanisms that lead the "most different" cases of an authoritarian China and liberal democratic Japan and Korea to similar political decisions, and discovers that public mobilization is the key. This is a causal inference relying on Mill's method of agreement. Again, the within-case analysis does the heavy lifting in making causal inferences and testing causal hypothesis about a collective idea agency who provides the same functions of civil society organizations in the neighboring democratic counterparts.

Throughout the dissertation, my causal inferences rely on process tracing and counterfactual analysis, the two key qualitative analytical tools (Goertz & Mahoney 2012). It applies process tracing to test causal hypothesis derived from theoretical arguments (George 1979; George and Bennet 2005: 6). This is done through empirical tests of observable implications of these theoretical insights within the case over time (Bennet and Checkel 2015, 8). The longitudinal cases allow me to hypothesize causal mechanisms and test them out. In case one, I divide the policy reform into three phases in each of which the key variables (developments in the political stream and epistemic community presence) change, which generates various opportunities under which the impacts of the epistemic community are manifested. Qualitative research allows me to identify the impacts of the epistemic community's contestation in different forms, such as changing the issue framing and solutions, taking over the agenda, circumventing the alternative options of decision makers, or becoming the winning alternative. Case two uses similar causal inferential tools in process tracing. And I use counterfactual analysis in both cases as well, which works to rule out other potential causal explanations (King et al.1994).

CASE SELECTION

Case selection is a model-dependence issue (Goertz & Mahoney 2012). From a quantitative method perspective, in both case domains I have selected on the dependent variable and would cause "inferential fallacies" (Geddes 1991). In case one, I selected a case when Y=1 and in case two the three (China, Japan and Korea) are all Y=1 cases. However, the case should be selected so as to allow us to test the hypothesis derived from our theories, and "If the model proposes a necessary condition, a good strategy is to select Y=1 cases" (Goertz & Mahoney 141).

The case selection strategy of my research is fully consistent with the set theory methodology (Ragin, 2008), or Set Theory Comparative Method (STCM). In the political world we study, cases should be considered as in sets of phenomena and inquired accordingly. In my case 1, China's final adoption of an IUCN management system is, thanks to the typological construct, a case of a set of decisions using the technocratic model, or *the state-corporatist technocracy*, in particular. While the research can benefit from other cases from the set, the within-case analysis of the variation on the two key variable provides considerable inferential leverages for process tracing and counterfactual analysis of the causal mechanism and hypothesis testing. The case 2 selects a set of East Asian developmental states that are similar in their developmental drives for GMOs, but all took precautionary norm stances. This is in line with the strategy of selection for Mill's method of agreement where all other aspects differ between China and the other two cases, especially in terms of political systems.

The single case selection in case one is also consistent with a "crucial case" selection strategy (Seawright & Gerring 2008). It is a "most likely" case (Eckstein 1975; George & Bennett 2005) for the norm diffusion at domestic levels for several reasons: there are relatively strong consensual norms and an international epistemic community behind them in the sector; China has also been exposed to international norms since it started conservation and at certain points the whole sector was funded and supported by the international community. Last but not the least, it is not a strategic sector in the sense that it will need to contribute to the national economic and strategic interest, although an administrative reform would certainly have great economic and social ramifications. And the emergence of a domestic epistemic community that strongly advocates the norm ideas and enjoys high authority and legitimacy in the policy field should be a big boost to the adoption of the norm. Besides, this is supposed to be an easier case if the authoritarian environmentalism theory (Gilley 2012)—the most explicit theory about regime effects on environmental governance—ever applies. Although the norm battle was won in the end stage and the outcome does not give tremendous inferential leverage by disconfirming the causal predictions as an ideal "most likely" case would lead to, my analytical intention is to illuminate the contingency of the outcomes at each critical juncture, particularly through the analysis of the counterfactuals of epistemic community impacts and the enabling political openings at the regime and state levels. The logical implication is that in most other cases that are less acceptive to international environmental norms than the protected areas system, we would not expect the smooth prevalence of environmentalism in China's authoritarian context. This, of course, does not rule out other causal pathways to authoritarian

embrace of environmental norms, as those presented in *the authoritarian decisionist* and *public contested* models.

Data

My research relies on three types of qualitative data that suits small-N and within case analysis. It includes semi-structured interview data, participatory observation data and documents and media data. These are causal-process observation (CPO) data vis-à-vis the data-set observation in quantitative research.

The main purpose of the data collection is to reconstruct policy processes but also primarily provide evidence for me to assess whether "a given causal factor exerts the causal role assigned to it by a hypothesis or theory (Goertz and Mahoney 2012 73).

My research draws on close to 150 semi-structured interviews and data collected during field work conducted between 2014-2019 and some earlier work in 2008 (for GMO cases). The field work was conducted in Beijing (May 2008, May and September 2015, July- Oct 2016, Nov 2018), Yunnan province (May 2015), Sichuan province (Oct 2018), Zhejiang province (Sept 2016), and some additional interviews were conducted in Vancouver, BC and Banff, Alberta over the period of 2014-2019. My interviewees include local conservation officials and experts, grassroots NGOs and local residents, activists, academic researchers, think tank scholars, international NGO representatives, as well as policy-making bureaucrats at the central and agency levels.

My field interviews rely on a snow balling technique to identify key interviewees that can provide critical testimonials to my research questions. Of course, the snowballing does not

mean that I have no agency in the interviewee identification and selection process. Snowballing is done under the objectives of reconstructing events and verifying observable implications of causal hypothesis and the counterfactuals. I also triangulate media reports, academic writing and information gathered in interviews and ethnographic observations to filter the list of contacts that are important to my research hypothesis. This same triangulation applies to the information, or data, when used for writing the research. Interviewing bureaucrats and party cadres is inherently challenging, if you are lucky enough to get the access which is not necessarily the biggest problem. Some ministry officials I interviewed simply avoided giving direct answers and only recited official documents. In cases like that I take notes on their sensitivity to media and academic reports as an indicator of their positions such as in the department that is the epicenter of the contestation. One thing important to me is that my research takes on a fundamentally constructivist approach that allows me to take the information and messages as a fabric of the constructed discourses.

Besides, my research also utilizes participatory observation of meetings, conferences and socializing events, including personal communications as primary sources. Using the time I spent in the field or on occasions when I was able to mingle with many key players, for instance, I was able to obtain many observations about their attitudes on some issues and interactions with colleagues and other players that speak volumes about their stances and rationales. Examples are abundant. For instance, I was able to participate in a very high-level closed-door consultative meeting on GMO safety, when the public mobilization of GMO issues had passed its peak time. The hosts, a few high ranking but obscure bureaucrats in a top party committee in charge of rural and agricultural affairs sat in a hotel conference room asking

rudimentary questions to a group of very select, well-known and seasoned experts whose expertise and academic credibility vary from excellence to heresy. I was struck by the intensity of bureaucrats' curiosity as well as their near zero level of knowledge on the issue, given it has been around for two decades and supposedly being their most concerning issue. In this meeting, I witnessed a thorough PPT report on the profile and involvement of an anonymous internet player from abroad who 'viciously' cooked up and spread misinformation on GMO safety, and heard in person that an expert claimed that deregulation of agriculture safety will cause an uproar from the public because "the public will not accept it!". And nobody objected to either statements. Does the state care about the public opinion? We don't have access to top leaders and, if interviewing party officials, the answer is predictably a "yes, of course." However, this meeting struck me for first time as an experienced testimony, that anti-GMO mobilization has made its impact. The consultative meeting also left a strong impression about the norm of such a meeting that is hard to picture for any outsiders. My research also relies on secondary materials including government documents, academic publications, media and social media reports. These sources were gathered through 2015 to 2019.

Limitations

The tradeoff of this research design is the limitation in the generalizability of the causal arguments beyond the cases within one domain and a single country confinement. This means that my theories of knowledge-based collective actors and political salience will need to be further tested in broader scopes, across policy domains or across countries, to rule out other confounding factors such as timing, level of fragmentation of the domain, and other socio-economic factors characteristic of my cases in this domain.

The explanatory framework of my dissertation is substantiated with cross-time case studies of the system reform of national parks and protected areas and the regulation of agricultural genetically modified organisms. As a result, the study's research design achieves internal validity of the effects of the identified factors on the selected cases. However, all the same, explicitly including cases with negative or lower scores on the variables would strengthen the generalizability of the identified variables' effects in other cases within China and in other authoritarian countries. A fuller investigation of alternative scenarios through further cases is beyond the scope of the dissertation. However, existing research and my observation from the field strongly indicate the existence of many potential cases of policy decisions in which the epistemic community or other knowledge-based actors are lacking or absent, or the political salience is low, and the global norms end up being rejected or only superficially adopted.

In the public policy field, for example, Greenhalgh finds that through close government affiliation, a Coca-Cola company funded think-tank was able to dominate China's public health regulatory process and create an exercise-focused obesity policy regime (2017, 2020, 2021). That paradigm domination was achieved without contestation or public scrutiny, largely due to the lack of an epistemic community promoting the knowledge of alternative public health theories of obesity.

Other illuminating cases can be found in the environmental policy field. China has joined the second supplementary treaty to the UNCBD, Nagoya Protocol, in regulating the Access to and Benefit Sharing (ABS) of traditional knowledge and genetic resources (ABSCH, 2016), after conducting domestic research and local experimentation for years. An ABS legislation, however, was not able to reach the state's agenda, despite minimal resistance from bureaucratic or

economic interests. In this case, both epistemic community and political salience were low, until the COVID-19 pandemic raised the issue of biosafety in 2020. Subsequently a national Biosecurity Law was swiftly enacted, embracing some elements of ABS, yet also diminishing the possibilities for a national ABS legislation. Climate change represents another highly impactful case, although it is much more complicated than the previous two cases. When accounting for China's change of stance from previous climate denial to adopting serious energy efficiency policies in the mid-2000s, Schroeder claims that "we detected information sharing as the main trigger for a shift in climate politic", and "epistemic communities, not NGOs, who had been the main conveyers of information" (2008, 522). Echoing other researchers who observed the increasing consultation between policy makers and scientists on climate issues (Heggelund 2007), she maintains that "scientists that shared information with policy-makers" conveyed the key message that triggered the policy shift on climate policies, namely that the cost of climate impacts was high and challenges to energy security were difficult to overcome. The "epistemic communities" in Schroeder's research may be loosely defined, but it would still be quite promising to investigate how the changing consensus, or the lack of it, among its scientist advisors have shaped China's climate policies over this time period.

Contributions

My dissertation puts the issues of decision making at the interface of the state, science and the public in the context of authoritarian regimes and tackles complex decision making in China's biodiversity conservation and biosafety regulations from both theoretical and empirical

angles. It contributes to the literature on several fronts, including the theorization of authoritarian responses at a science-policy interface, substantiating the norm diffusion literature, identifying new collective action actors (epistemic community and proxy civil society) and theorizing their causal impacts by bringing in the Multiple Stream Framework and social movement theories; in addition to bringing the regime factors that are left out in general theory and studies of Chinese politics, my research also highlights the international influences in China's public policy-making process. This dissertation also sheds light on the important environmental politics of biodiversity conservation in China.

In the broadest stroke, my dissertation is the first to theorize authoritarian responses in issues areas that are technically complex and uncertain. Borrowing Habermas but also bringing in social movement literature in innovative ways, my typology of authoritarian decision-making structure at the state-science-public nexus lays the foundation for comparative research and theoretical advancement in the emerging authoritarian responses literature. It connects the previous research on China's civil society and the recent attention to expert consultation in the authoritarian resilience literature with a Habermasian meta theory of democratic science-policy typology, thus allowing productive dialogue between sectors of literature and research.

By focusing on two cases of international environmental norm diffusion in biodiversity conservation, my dissertation is able to isolate three pathways in authoritarian adoption of liberal international norms, namely, state instrumental adoption, epistemic community advocacy, and civil society contestation. This contributes to the idea vs. interest debates in the international relations literature by enriching it with a domestic political and social context that is theorized beyond a single case level. My dissertation demonstrates that ideas travel in

complicated landscapes and both agency and structure are important to how they are adopted and institutionalized.

In particular, my case research reveals for the first time the previously unknown collective idea agents in the authoritarian context, including an epistemic community and a proxy civil society, and theorizes their causal functions through process tracing. An epistemic community by definition represents the highest and purest form of scientific authority in all its neutrality and objectivity. And a causal theory of the epistemic community sheds light on how the technocracy and supposedly authoritarian environmentalism works in an authoritarian regime.

Using a functionalist method and bringing in the mobilizing structure literature, I identify a collective norm agency, coining it as a proxy civil society based on the similar functions it serves as civil society actors in the democratic context. The process tracing allows me to highlight the political opportunity structure for an unexpected national anti-GMO mobilization, and explains the consequences of this particular pathway of mobilization.

My theory of knowledge-based collective actors adds new insights to the understanding of state-society relations in general and the civil society in authoritarian regimes, in particular. It sheds light on an interface at the state-science-public nexus, identifying the key features and strategies as well as the public and policy impacts of the non-traditional civil society actors active in the interface. It demonstrates that policy substantiation and contestation can occur in previously obscured knowledge communities, through close linkages of state research institutions, consultative forums, and even within bureaucratic establishments and other state apparatus. Moreover, my findings bring to light a dimension in the collective action and social

movement theories that was previously overlooked, and that is the role of science and knowledge. Whether a global norm, especially in complex and uncertain issue areas, can successfully diffuse, depends to a large extent on the existence of authoritative knowledge actors and their activism. While direct challenges to the state are prohibited in an authoritarian regime, current literature on popular contestation and mobilization emphasizes the "rightful" discourse and "rule-based" activism (O'Brien & Li 2006; Perry 2008). For instance, recent findings about "disguised" activism in labor movements push the frontier in this paradigm, claiming that some labor activists can mobilize collective actions "without masses" to avoid regime crackdowns (Fu,2017). My research looks beyond this paradigm and investigates how public contestation can be science based and advance "rational" claims to appeal to the state's needs for performance and legitimacy. It also goes beyond the usual treatment of the topic as framing in social movement literature.

This focus on the collective idea agency also brings to light the state bureaucracy, its incentive structures, resources and repertoires. As a central actor for political studies, the Chinese state has remained generally an obscure actor, undertheorized and under investigated systematically.[4] This is understandable to a degree, as the Chinese state is transient, massive and difficult to access. My research provides a window to look into the internal structure and dynamics of the Chinese state bureaucracy and contributes to efforts to break down the image of the Chinese state as a monolithic actor, at the core.

[4] Dali Yang's Remaking *the Chinese leviathan: Market transition and the politics of governance in China* (2004) is a landmark work on the subject but hasn't been updated for 15 years. Another important literature on Chinese state focuses on elites and high-ranking cadres, such as the work by Victor Shih (2013) and Joseph Fewsmith (2015).

Although not an explicit research theme and argument, this dissertation also presents important insights and evidence about the international influence in authoritarian policy making. Seemingly obvious, this has not been theorized and explored in comparative literature adequately (Duckett 2019). Recent research on social policy making in China has started to focus more on this issue and my research will be of high importance to developments on this front. My findings on biodiversity and biosafety politics also touches on the influence of international events (e.g. WTO entry), international collaboration, international actors including international conservation NGOs and campaign organizations such as Greenpeace, as well as global ideological trends including ethno-nationalism and conspiracy theories, among many others that are important to the policy decisions.

At an empirical level, China's environmental policy making in biodiversity conservation is of great importance not only to China but also the world. And we have extremely limited knowledge regarding how policy decisions have been made in China on issues of biodiversity, especially at the national policy level. At a time when China is also rising in the geopolitical landscape as a great power in global governance, its experience in responding to challenges in biodiversity helps us to understand its climate, water and energy politics that bear great implications to the world.

Roadmap

The remainder of the dissertation consists of six chapters. Chapter one to five address the issues of national park and protected areas reforms. In Chapter One I lay down the detailed

discussion of the foundations of my theoretical framework; Chapter Two introduces China's conservation system, development and problems; chapter Three further defines and discusses the epistemic community, its origins, context and characteristics; Chapter Four and Five analyzes the interactive process of epistemic community and decision makers in the three phases of the reform process; Chapter Six presents the politics of GMO regulations in the authoritarian developmental state in an East Asian context.

PART I

Chapter ONE

Reforming China's Protected Areas: The Conservation Gold Rush and Its Institutional Problems

Introduction

As the fastest growing economy in the world for the past few decades, China has also encountered mounting environmental problems. Compared to the alarming severity of industrial pollution, water shortages or the climate crisis, however, biodiversity issues seem to be much less conspicuous. While media reports on species extinction or habitat loss break out constantly, rarely can any lay person put together an overall picture of China's biodiversity conservation in a systemic manner. Few people are familiar with the fact that, first, China is one of the twelve most biodiverse countries on the planet (Xue et al. 2011) and, secondly, biodiversity conservation is one of China's fastest growing sectors: over the thirty-five-year period between 1978 and 2013, for instance, China's coverage rates of terrestrial protected areas grew from 0.13% to 17% (Yang 2015). In a no less realistic sense than President Xi's slogan, "clear water and green mountains are as valuable as mountains of gold and silver," the speed and fervor of China's local protected areas formation can be described as a conservation "gold rush."

Protected areas are the primary institutions supporting biodiversity conservation. There is a lot at stake in China's protected area governance for both China and the world. However, China's conservation areas were set up in fragmented bureaucratic systems, and their administration and regulation reflected the People's Republic of China (PRC)'s resource-focused natural resource administrative structure. Under such an overlapping and fragmented bureaucratic management system without any fundamental coordinating mechanisms, China's conservation areas often fall into local captivity, making it more difficult to prevent encroachment from overdevelopment, to say nothing of effectively engaging conservation activities. China's conservation areas cannot fulfil even basic expectations, and their rapid expansion has only intensified the pressure on these weak institutions.

Over the past two decades, there have been many attempts to reform the system at the top level. None of the various reform proposals came to fruition, however, until recently when China undertook a high-profile national park reform, and quietly pulled off an unprecedented bureaucratic restructuring to integrate the conservation functions from up to thirteen ministries into a single "protected area system" under one unified administrative agency. Accompanying this step, China also plans to establish its own "protected area system with the national parks as the main components," or, as some have put it, a protected area system with Chinese characteristics, by 2035. China is entering a new era of nature preservation, Biodiversity Conservation 2.0.

Through this sweeping reform, China is resetting its entire conservation system. On the surface, China's protected area reforms look like a success story of a rational idea from an internationally prevailing system. However, it is puzzling on many levels. For one, its triumphant

rise from the bewildering national park reform was a big surprise to the policy community and outside observers. From a theoretical perspective, decision-making in China's conservation sector follows a *state-corporatist technocratic* model, in which a bureaucratic-scientist alliance dominates the reform agenda and determines the reform outcomes. Protected areas reform has no clear bureaucratic patrons and has been resisted from the left and right, including many scientists and policy experts. So how did such an idea come to prevail so swiftly?

Chapters 1 through 5 of my dissertation examine the protected area reform that emerged during Xi Jinping's national park system reforms and the development activities leading up to it.

This chapter starts to tackle these issues by examining the development of China's conservation areas institutions in modern times. It illuminates the continued path dependence of China's conservation institution construction and the accumulation of authority fragmentation and overlapping, as well as local interest capture that arose as a consequence of this structure. In this chapter, I argue that China's national park and protected areas reforms close off a long-term and increasingly widening gap between international protected area norms and China's fragmented conservation area institutions and practices. China's conservation area construction in a "Gold Rush" style was accompanied by the rampant multiplication of conservation categories, the regulation and administration of which was entrenched in a fragmented bureaucratic system. This process created a complicated set of conservation categories, systems and technical standards that further locked in the existing system on a path that failed to take into account the international norm of a unified protected area system proposed by the International Union for Conservation of Nature (IUCN). Through a

radical overhaul during Xi's national park reform, China switched tracks to the protected area system, embracing the IUCN norm that it not only had resisted for many decades, but also did not have an clear set of Chinese terminology for even just a few years back.

The remainder of this chapter starts with a history of the evolving norm in conservation institution--protected areas--and contrasts it with the historical development of conservation area concepts and categories in China. Part II documents the history of the primarily post-1978 conservation areas construction in PRC. It then looks at the structure and problems of the administration, regulations and legislation of this unwelded "system" of conservation areas. In part IV, I recount how the reform processes unfolded, including both the change in the framing of the issues and reform goals as well as the bureaucratic restructuring to a unified system of protected areas.

Part I: Protected Areas in World and China: Concepts and Practice

Most people understand China as the production base for global manufacturing goods and ground zero for industrial pollution. Lesser known, however, is how China is also one of the most biologically diverse countries on the planet. China's vast land area, complex topographic conditions, and inclusion of several climate zones contribute to its rich and unique biodiversity (China 2018). Its terrestrial ecosystems contain abundant types of forests, shrubs, meadows, grasslands and desserts, and its natural wetlands and marine ecosystems are also richly diverse. Similarly, China's species counts, and genetic resources are extremely high. For instance, it ranks third in the world in total number of higher plant species, behind only Brazil and

Colombia (Gao et al.2018). Yet China's biodiversity status is quite concerning as it is also "one of the countries in the world where biodiversity is more threatened" (China 2018). According to China's official account, 10.9% of its 34,450 assessed higher plants are threatened, and 29.3% of its total species of higher plants need more attention and protection. 932 out of 4357 assessed species of vertebrate are threatened, accounting for 21.4% of the total species. And its threatened amphibians' rate stands at 43.1%, much higher than the global average of 30.6%. China's genetic resources also do not have a great outlook. For instance, in the Guangxi Zhuang Autonomous region where rice is traditionally cultivated, the wild rice distribution points dropped from 1342 in 1981 to 325 in 2015 (China 2018). Virtually all of China's ecosystems are affected by human activities (Xue et al. 2011). For example, China's wetlands constitute 10% of the world's wetlands, but have been disappearing by 1% each year, despite tremendous efforts to conserve these ecosystems, including the establishment of 550 national wetland nature reserves and over 100 national wetland parks (Meng etc, 2017).

China has the world biggest population and its economy has grown at a double-digit rate for the past three to four decades, with a particularly resources-intensive economic model since the early PRC (Shapiro 2001; Economy 2011). The five biggest factors contributing to China's biodiversity loss—including the loss and damage of natural habitat, the overexploitation of natural resources, pollution, alien invasive species and climate change (China 2018)—are all directly related to its development speed and patterns. Despite the alarmingly dangerous trend of ecological degradation, the past forty years also have witnessed the fastest development of China's protected areas and nature conservation in its history. Not unlike many countries whose conservation sectors commenced earlier in a more ad hoc fashion peculiar to their

national institutions, China's conservation started sporadically and then built up a national system that is deeply entrenched in its fragmented administrative structure over the past 60 years.

Throughout this process, China's protected area system stood out with one distinct feature, and that is it did not have an organized protected area system; and the introduction of the concept to the existing system was not smooth or without disruption. In the following sections of part I, I will first introduce how protected areas as a working concept for conservation have come along in the global context, and then contrast it with China's practice and conceptual and institutional prolificity in conservation areas.

Protected Areas: Concepts and Practice in the World

When people talk about protected areas, Yellowstone National Park typically comes to mind. Modern conservation through protected areas dates to the creation of Yellowstone in 1872, but it soon expanded and evolved drastically beyond the national park idea globally. Protected areas have become the key institutions in safeguarding nature and biodiversity in modern times. It is "at the core efforts towards conserving nature and the services it provides us – food, clean water supply, medicines and protection from the impacts of natural disasters" (International Union for Conservation of Nature, IUCN)[5]. Almost every country has set up a system of protected areas, but these protected areas vary in size, age, purpose, designation, governance, management and outcomes (Dudley 2008, 2009; Dudley et al. 2010).

[5] IUCN, "About." https://www.iucn.org/theme/protected-areas/about.

Protected areas are cultural artifacts (Phillips 2004). Historically speaking, as protected areas were set up in one nation after another, each country developed their own approach, and initially there were no common standards or terminology. Many different names are used at the national level, with about 100 names world-wide. For example, there are about 50 names for different types of protected areas in Australia (Phillips 2004). And the most popular name, national parks, conveys drastically different meanings across the world.

There were efforts to clarify terms for protected areas earlier, but the relative success came mostly after the International Union of Conservation of Nature, IUCN, took the lead in the late 1950s. However, the IUCN initially used national parks or parks as its terminology, which created more confusion than clarity. And when the IUCN started to create a typology of conservation areas with different categories of protected areas, the thing that was missing was an umbrella concept to which the categories all belong in an organized fashion. After a few rounds of attempts, the IUCN and World Conservation Monitoring Center (WCMC) published *Guidelines for Protected Areas Management Categories* in 1994, with a definition of protected areas as the umbrella concept subsuming six categories based on the management objectives (Phillips 2004). This definition went through changes and adjustments as its main categories were also debated and revised along the way (Shafer 2014). But the concept of protected areas was generally accepted as *the* common terminology for conservation areas. In an updated 2008 version, the IUCN defines protected areas as "a clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values" (IUCN 2008).

This definition is commonly accepted by national governments and international bodies such as the United Nations.

Defined in this way, the IUCN protected areas recognize conservation in many different forms, including "national parks, wilderness areas, community conserved areas, nature reserves and so on" (IUCN 2008). IUCN's own classification is based on primary management objectives: its six categories vary on a spectrum of level of allowed human activities, ranging from the strict prohibition of any human disturbance in category 1a and 1b to category five and six in which sustainable and community uses of natural resources are integral part of the conservation. It is clear from the start, that the IUCN categories are supposed to apply to the national system retroactively, and as a technical standard, partly for the purposes of providing a framework of reporting data to the World Database on Protected Areas (WDPA). However, it has been increasingly used as an instrument for policy, planning and even legislation (Dudley et. Al 2010). This is because the national parks and protected areas system of IUCN provide a coherent set of field administration guidelines and technical standards.

One benefit of having a common denominator for conservation in the global world is to be able to share common data for evaluations and planning with set targets at the global level, such as the United Nation's Aichi Biodiversity Targets for 2020. With the IUCN classification system in place, it is now possible to have baseline survey data, make common goals such as in Aichi target, as well as assess global trends in conservation. Using this system, we can see that protected areas have grown substantially over the past century. As of 2018, there were 238,563 designated protected area globally, accounting for 14.9% of the earth's land surface, and 7.3% of the ocean area (UNEP-WCMC 2018).

Protected Areas in China

China's modern protected areas movement dates back to the 1930s and 1940s when the government of Republic of China (ROC) developed an interest in creating national parks in the then internationally influential model. The idea was to establish modern parks in famous scenery sites of Mount Lu and Lake Tai and the planning for a Lake Tai National Park 国立太湖公园 (Jia et al., 2015). There were also efforts to create forest parks at the county level in the 1940s (Zhao & Chen, 2016). The first batch of modern protected areas of China, however, formed under the government of the People's Republic of China (PRC). Yet it was not until 1978 when China's conservation sector truly set off to grow in both numbers and areas as well as with the building of conservation institutions. According to one estimate, over the thirty-five-year period between 1978 and 2013, China's coverage rates of terrestrial protected areas grew from 0.13% to 17%, an increase of 131 times (Yang 2015). The types of protected areas multiplied as well, with the Nature Reserve (NR) remaining as the dominant one (Wang 2017; Tang & Luan 2017; Peng et al 2018). According to some partial estimates, the number of various protected areas in China added up to 10,000-12,000 as of 2017 (Tang, F 2017; Tang & Luan 2017).[6]

A Taste of Protected Areas Categories in China

Until very recently, there was no official data on China's overall protected areas that included all broad categories that the IUCN system covers. Only with the recent demands for

[6] Tang Fanglin's calculation seems to be primarily based on the statistics about Nature Reserves, Forest Parks, Scenic Areas, Wetland Parks and Geoparks. Tang and Luan draw their number from the government report given by the minister of MEP. The bases of Minister Chen's data are not clear.

reforms of the national parks system, has China started to look at its own conservation sector as a whole and take inventories. Despite lack of consensus over which type should make to the list, it is commonly recognized that there are about ten types of protected areas in China (Wang 2017; Wang F 2017; Zhao et al 2016; Tang & Luan 2017; Peng et al 2018). The content differs, though, in terms of what categories are included in the list. The less disputed main types include Nature Reserves, Scenic Areas (风景名胜区)、Forest Parks （森林公园）、Geoparks (地质公园)、Wetland Parks （湿地公园）、Special Marine Reserves (海洋特别保护区) , Ocean Parks (海洋公园), while the rest are selected among the following categories according to different standards[7]: the Aqua Germplasm Reserves(水产种质资源保护区）、Water Conservancy Scenic Areas (水利风景区) 、Urban Wetland Parks(城市湿地公园)、Desert Parks(沙漠公园)、Protected Micro Areas (自然保护小区)、Logging Banned Natural Forest Reserves(天然林禁伐保护地)、Game Refuge(禁猎区)、Drinking Water Source Protected Areas(饮用水水源保护区)、Grazing Banned Pasture（禁牧草地）, National Parks (国家公园) etc. (Wang 2017; Wang F. 2017; Yang 2015; Tang & Luan 2017; Peng et al 2018). Many in the latter list are created in the single-source natural resource management legislations/regulations and are less often acknowledged as protected areas.

To make matters even more complicated, China also has joined environmental international treaties and created a variety of protected areas accordingly, such as the World Heritage Sites (世界遗产) and World Geoparks（世界地质公园）under the United Nations

[7] It seems the list is mostly chosen based on which sector the author's work is related to, forestry, environmental protection or Ministry of Urban and Rural Construction, for example. Authors like to include the protected areas in their sector in the list.

Education, Science, and Culture Organization (UNESCO), Biosphere Reserves (生物圈保护区) under the Man and Biosphere Program (MAB) of UNESCO, and the Wetlands of International Importance（国际重要湿地）under the Ramsar Convention, just to name a few of most well-known ones. To be sure, most of the international designations were granted to areas that were already under some protection.[8]

Lack of An Umbrella System

According to Tang and Luan (2017), as of 2017, there were up to 12,000 protected areas established in China, covering 18% of the terrestrial area of the country (with the exclusion of the Protected Micro Areas). And as the dominant type, Nature Reserves accounted for 70% of protected areas and 14.8% of the national terrestrial areas. As mentioned before, the protected area system of IUCN is a fast-evolving concept and it was meant to be applied to conservation areas retroactively. And China's ad hoc conservation system was not completely unique compared to how other countries developed their own protected areas systems. Thus, the rampant multiplication of protected areas in both type and number is not a problem per se, as long as China developed a coherent umbrella system or embraced the IUCN one. Yet neither was the case until lately.

China had created many categories of conservation units without invoking a unified protected area terminology of either its own or of IUCN categories. Each category of conservation areas system was created on its own; and once created, its conservation units were subsumed under the system prescribed by the regulation issued by the founding

[8] Some of the buffer zones of Biosphere Reserves do not meet protected standards (need to verify sources for this)

governmental agency. As a result, these units were run relatively autonomously by their systems, even though they often overlapped with other systems in conservation affairs and jurisdictions. Each of these systems emphasized their unique functions and displayed no need or willingness to accept any subsuming or higher categories above themselves. For instance, the authors of the 1994 Technical Standard of Nature Reserves Administrative Classification claimed that although there were other conservation-related systems beyond Nature Reserves such as the Scenic Areas—the second most significant type of protected areas in China—these areas did not conform with IUCN classification standards and had their own administrative systems, which meant they should be run on their own grounds (Xue etc. 1994).

China's flagship system of protected areas, nature reserves, were set up in a rigid and fragmented management system. Nature Reserves (NRs) are constituted of 9 subtypes in terms of their primary objects of protection in three clusters including species (fauna or flora), ecosystems and natural relics (NEPA 1993; Xue et al 1994).[9] This classification system is based

[9] The principle for nature reserve classification revolves around the subject of protection (Xie 2016), as well as their "constructed administrative grades" and "administrative department," see Xue DY, Jiang MK. A Study on Categorizing Standard of Nature Reserves in China. China Environmental Science. 1994; 14: 246–251. In addition, under the three categories, there are forest ecologic systems, grassland and meadow eco systems, desert ecosystem, inland wetland and aquatic ecosystems, marine and coastal ecosystem under the category of natural ecosystems; wild fauna type reserves and wild flora type reserves under the category of wildlife protection; and geological relics and paleontology relic reserves under the natural relics category.

Under the three categories, there are forest ecologic systems, grassland and meadow eco systems, desert ecosystem, inland wetland and aquatic ecosystems, marine and coastal ecosystem under the category of natural ecosystems; wild fauna type reserves and wild flora type reserves under the category of wildlife protection; and geological relics and paleontology relic reserves under the natural relics category.

on China's ministerial divide according to the natural resource types. For example, the Ministry of Forestry (MOF) , and the State Forestry Administration (SFA) from 1998 to 2018 was conventionally in charge of forest and land-based fauna and flora, while the Ministry of Agriculture (MOA) was responsible for grassland and meadows, including wetlands, and Ministry of Geology controlled geological relics. And the NR management follows a one-size-fits-all style that is copied from management standards for Biosphere Reserves under Man and Biosphere, UNESCO (Wang 2006). For all Nature Reserves, the management objective is simply conservation in the strict sense of protection of nature and biodiversity (Jiang et al 1994; Xue et al 1995; Jiang 2004; Ouyang et al 2002), despite the considerable variation in terms of history and human factors such as population and livelihood activities going on within reserves. This rigid management objective of Nature Reserves partly explains the proliferation of other types of conservation areas such as forest parks, even in the same sites of some Nature Reserves, because regulations of other conservation types were set to be more permissible for tourism and other economic developments. However, the other categories of conservation areas also copy the one-size-fits-all style of management objectives, although they are notably less rigid, and classify their systems based on management subjects as well.

All in all, China's conservation areas operate in different management logics from the protected areas of the IUCN system. These differences were used as the justification for the autonomy of each system and rejection of the IUCN protected areas concept. Up to the mid-2010s, China still refused to embrace an IUCN standard for protected area classification. This stance has contributed to the continuedly widening gap between Chinese practices and the global ideals of protected areas before the recent reform.

Evolution of the Concept in the Semantic Field

For the majority people of China's conservation community, this increasing gap was not even considered a problem until recently. This raises the question about the discursive and systematic diffusion of the concept and ideas of protected areas in China.

China had been building its own set of systems and terminologies for conservation institutions. However, through participating in international conservation communities and by the conscious efforts of IUCN to advance its protected area category system, the policy community in China became aware of the IUCN framework of protected areas when it started to regulate and set technical standards for its own conservation system, primarily Nature Reserves in the early 1990s. Evidence shows that the State Environmental Protection Agency (SEPA) classification of nature reserves in the early 90s had taken the IUCN system into consideration , although only to reject it for being flawed and not suitable for the Chinese institutional context. This shows that at least a select few technocrats in the policy community were aware of the IUCN system and had to justify their own conservative technical standards against it (see for example Xue et al 1994, 1995). Notably, these technocrats could brush off the IUCN system with relative ease at this time and this did not raise any debates or criticism at all. The broader discussion of the protected areas did not fully emerged until the first decade of 21st century (see Xue et al 1994, 1995; Ouyang 2001; Yang 2003; Jiang et al 2004; Wang et al 2004; Wang 2006; zhongguo wang 2013; Liu 2017; Yang 2016). The systematic introduction of the IUCN's protected area concept in academia and the public sphere occurred in the mid-2000s and picked up more steam in the mid-2010s after the National Parks system reform kicked off (Jiang et al 2004; Zhu 2014; Xie 2016; Zhang et, 2017).

This emergent feature of IUCN protected areas concept in China first manifested in the confusion over language and terminology.[10] Without a primer, reading any English language document about China's protected areas, or any a Chinese language discussion of protected areas in an international context, before the mid-2010s would likely cause serious headaches. . Because, until very recently, neither national parks nor protected areas in the standard IUCN lexicon had a clearly defined counterpart in Chinese conservation language; and even after the concept emerged in public debates in 2003, the semantic field around these concepts were unstable and confusing until mid-2010s.

The initial confusion likely stems from the identification of China's nature reserves as directly and exclusively equivalent to the IUCN framework of protected areas. And when the protected areas concept was formally introduced in a legislative draft of National People's Congress (NPC)[11] in 2006, its Chinese translation *ziran baohudi* (自然保护地) was seriously challenged and had to change to *ziran baohu quyu* （自然保护区域）in response, which did not fare well and last long. In 2016, the IUCN published its first Chinese language version of Protected Areas classification system (China Daily 2016) and its Chinese title used *ziran baohu di* (自然保护地) for protected areas.[12] The semantic trend seemed to coalesce around *ziran*

[10] As China officially labels its own first and leading type of protected areas as 自然保护区 (ziran baohu qu) , which literarily means natural protected areas, in some influential English language academic work we can see "protected areas" were directly used to refer to China's Nature Reserve, in an interchangeable way (Jim & Xu 2004) ; but more often than that, the English terminology "protected areas" is translated into something really similar to nature reserves (自然保护区), including保护区 （baohu qu）(Xue et al 1995; Jiang et al. 2004）, 保护地 (baohu di), or 自然保护地(ziran baohu di) (Yang 2003; Tang 2017). It is not until very recently that the IUCN framework became settled more or less around保护地 （baohu di） or 自然保护地 (ziran baohu di) in the Chinese translation.

[11] In its special legislative committee, the Environmental Protection and Resource Conservation Committee (EPRCC)

[12] I received copies of the Chinese edition during the visit to IUCN China office in August 2016. The publication coincided with the 60th anniversary of China's first nature reserve designation and was part of IUCN contribution to the official celebration of the conservation history in PRC.

baohu di (自然保护地) since 2016. In the party documents regarding national park reforms, the official terminology for conservation sites changed from *baohudi* (保护地) in 2015 (Xinhua 2016) to *ziran baohudi* (自然保护地) in 2017 (Xinhua September 2017； Xinhua October 2017), indicating the formal recognition of the protected areas based on IUCN ideals as an overarching concept for China's conservation area institution. The ongoing national park reform now aims to build a Chinese protected areas system with national parks as the leading components (Xinhua, 2018).

This glimpse into the evolution history of China's conservation areas helps us to understand how issues of conservation were understood in relation to protected areas in the PRC. As a result of this institutional path-dependence, despite the commonly recognized institutional problems I will sketch out in the following sections, issue framing and solutions were initially confined within the contours of the existing bureaucratic and regulatory system. Since the mid-2000s, however, the reform became contested along the fault line between a possible united protected areas system and various ad hoc defined conservation system based on the existing system. In the late 1990s and early 2000s, the policy community viewed the roots of the conservation institutional malady as lack of a fundamental legislation for the country's primary conservation type, nature reserves. This was pushed by the environmental ministry and supported by the forestry administration, due to their major roles in the nature reserves regulation and administration, although they could not agree with each other on any sweeping solutions that would encroach upon their turf authority and interest. They couldn't foresee, however, that such issue framing would soon be challenged and dramatically shifted in response to the rise of the epistemic community and the ideals they supported.

Part II: Historic Development of China's Protected Areas

The development of China's conservation areas is roughly parallel to its opening up and reform timeline, and I divided my account into pre-1978 to post-1978 periods accordingly, even though the two periods are not proportionally equal in any sense. In the major part of this section about the post-1978 conservation takeoffs, I trace the rise of policies and social economic factors along with the development of conservation areas. I also offer some insights into local players' incentives to dive into the conservation "gold rush" in creating protected areas.

Early PRC to 1978: Logging-Ban Nature Reserves

Nature conservation in the PRC dates back to the 1950s when the national government established the first protected area in the form of Nature Reserves (NR). The primary goal of conservation at that time was to protect forest flora through shutting down all disruptive human activities; and following the pattern of the now recognized "first nature reserve", Mt. Dinghu（鼎湖山）Nature Reserve in Guangdong province, nature reserves were created in Heilongjiang, Zhejiang and Yunnan provinces. Over the 22 years between 1956-1978, protected areas in China grew from zero to thirty-four, covering up to 0.13% of the national terrestrial area, all in the single form of Nature Reserves (zhu 1995).During the Cultural Revolution, especially between 1966-1972, the first generation of nature reserves faced setbacks as nature itself became a national target of exploitation for, among other things, the conversion to grain production in campaigns for national self-sufficiency, leading to the dysfunctions of the Nature

Reserve administration, severe loss of natural resources and long-standing damage to the natural environment. Nature Reserves went through a slow recovery and gained some attention when China started to pay attention to environmental protection, especially after the 1972 United Nations Conference on Human Environment in Stockholm (Zhu 1995; Zou et al 2013; Yang 2016; Peng et al. 2018).

Post-1978: China's Conservation Takeoffs

Similar to the timeline of China's economic takeoffs, the time between 1978 and 2010 is the period for the exponentially fast growth of China's protected areas.

Starting in 1978, the state started to stress the importance of protecting natural resources, especially the need for the conservation of flora and fauna as well as the prevention of environmental pollution and public hazards (Harkness 2004; Economy 2006). Both the 1979 and 1982 Constitutions of PRC stipulated similar environmental mandates. The national government issued China's first *Environmental Protection Law* (Trial) in 1979, making the constitutional stipulation on environmental conservation its primary legislative objective (Zou et al., 2013). The state also enacted natural resource legislation. including water, grasslands, forest, and wildlife protection, which included items about conservation. In 1986 the State Council issued *Chinese Programme of Natural Protection*, the first national policy document that systemically discussed nature conservation issues.[13]

[13]Baidubaike. Chinese Programme of Natural Protection.
中国自然保护纲要.https://baike.baidu.com/item/%E4%B8%AD%E5%9B%BD%E8%87%AA%E7%84%B6%E4%BF%9D%E6%8A%A4%E7%BA%B2%E8%A6%81, accessed 12/21/2019.

Meanwhile, ecological conservation started to gain increasing significance in China's most schematic national planning programs. The national Five-Year Plans increasingly incorporated conservation visions and tasks. During the Ninth Five Year Plan period (1996-2000), the government started major national programs addressing ecological degradation, including two major programs for protected areas construction, *Program of Natural Forestry Protection* and *Grass for Grains and Forest for Grains program (Farmland conversion to grasslands and forest*). In 2001, the National Planning Committee approved the *National Wildlife Protection and Nature Reserve Construction Program* which significantly boosted nature reserves construction.

All these favorable domestic developments were accompanied by China's international cooperation and exchanges on environmental governance. Influential international conservation actors such as World Bank (WB) and World Wildlife Fund (WWF) entered China as early as the 1980s and brought in expertise and funding through conservation programs. China joined IUCN in 1986, the *Convention on International Trade in Endangered Species of Wild Fauna and Flora* (CITES) in 1981, and the *Convention Concerning the Protection of the World Cultural and Natural Heritage* in 1986 (Zou et al. 58). While China joined *the Man and Biosphere Program* of UNESCO in 1972, it did not set up the Chinese National Committee of Man and Biosphere (MAB) Program or start to apply for the designation of World Biosphere Reserves until 1978. This period also witnessed increasingly larger scale national campaigns and programs with special tasks in nature conservation, such as the Giant Pandas and their Habitat Protection Program jointly waged by State Forestry Administration (SFA) and WWF in 1992

(NFGA 2017). That campaign resulted in the creation of about 50-60 nature reserves for panda conservation (Interview, Feb 18, 2019).

Table 2.1: Exemplary Policy Documents on Nature Reserves and Nature Reserve Development, 1978-.

1986	Chinese Programme of Natural Protection
1994	Regulations of Nature Reserves
1997	Outline of Plans for the development of Nation-wide Nature Reserves, 1996-2010.
2001	Overall Plan for National Wildlife Protection and Nature Reserve Construction Project

The following section details the development of protected areas in two phases during this period. In 1978-2000, the three major types of protected areas, Nature Reserves, Scenic Areas and Forest Park experienced fast growth, while in the first decades of the 2000s, protected areas growth went through an explosion in types, numbers and areas.

1978-2000: Fast Growth of *Nature Reserves*, *Scenic Areas* and *Forest Parks.*

Nature Reserves went through critically important developments during the 1978 to 1999 period. Beijing's commitment to expanding conservation areas was primarily due to growing domestic and international pressures (Jim 2004), and it took a "rescue" style of designation of nature reserves (Xue and Jiang 1994). It abandoned the centralized top-down designation process from Mao's era and adopted a "quota and list" approach to incentivize local governments to identify nature reservation sites for designation (Jim 2004). In this process, the central government set up a national target of areas and numbers for conservation areas with breakdown quotas for every province (and province-level municipalities as well as autonomous regions). In the context of the nationwide deregulation and devolution of

administrative and financial decisions, the local governments competed with each other to meet the quota requirements, as setting up nature reserves signaled their administrative accomplishments, brought in potential sources of tourism income as well as other financial benefits from the national state (Jim 2004). In 1990 the State Council convened the first national conference on conservation work, addressing conservation in a systematic fashion at the national policy level for the first time.

Regulations and technical standards came in a belated fashion for nature reserves. After many reserves were created inappropriately, the government came up with regulations, technical standards and guidelines to address the issue of "paper parks" syndrome (Jim 2004). The National Environmental Protection Agency (NEPA) issued the technical and procedural standard for setting up national nature reserves in 1991, representing the first statutory regulation of its kind. Among other important party documents and policies following the constitutional commitment to environmental protection, the 1994 *Regulations on Nature Reserves Administration in People's Republic of China* became the foundational regulation in China's conservation sector. Over the years it has been debated, criticized and in high demand for upgrades. However, it remains as the dominant legislation in the field as of today.

By 1999, China has established 1276 Nature Reserves, covering 12.8% of national terrestrial area (Zou et al, p57).

1978 -1999 also witnessed the emergence of the two other main categories of China's protected areas, ***Scenic Areas*** and ***Forest Parks***, both providing sightseeing, recreation and forest tourism to the public in addition to protecting natural resources (Peng et al 2018). Both

movements started in late 1970s for preparation and the first batch of National Forest Park (in Zhangjiajie, Hunan Province) and 44 National Scenic Areas emerged in the same year in 1982. Scenic Areas were set up by the then Ministry of Construction and intended to be the National Park of China as indicated by its designated English title. In 1985 the state issued the *Temporary Regulations on Scenic Areas Administration*, which was updated and formalized to become the other of the two main legislative documents in the conservation field. In 1994, the then Ministry of Forestry issued a departmental regulation, *the Administrative Methods of Forest Parks*.

The Scenic Areas grew at a relatively constant speed[14] while the state regulated its technical standards and management principles, particularly regarding various market reforms in tourism management dependent on these protected areas. The Forest Parks took a growth spurt in early 1990s due directly to the Ministry of Forestry's policy encouragement which had decided to "speed up the Forest Park construction" in 1992 (Zou et al. 49). This decision coincided with Deng Xiaoping's southern tour in late December of that year which reaffirmed that the party continued to pursue market reform. The number of Forest Parks established during the following three years reached 218, a figure that is 14 times higher than that of previous 9 years[15].. By the end of the century, there were 1,078 Forest Parks nation-wide, including 344 national Forest Parks (SFA 2013: 16-17).

***2000-2010s*: "Sudden Blowout" of Protected Areas**

[14] see figure in Zou et al p33.
[15] See figure in Zou et al p48.

Starting from around 2000, the development of protected areas exhibited new dynamics. First, there were many new types of protected areas emerging during this period; second, old types of protected areas continued to grow, and Nature Reserves took an accelerated rate of growth due to state policy encouragement.

In this period, protected areas truly diversified in China. The development of protected areas allegedly demonstrates a "sudden blowout" (井喷) pattern in both number and types (Peng et al 2018). There were at least around 7 other types of protected areas emerging into the scene (Peng et al. 2018; Tang & Luan 2017). They were geoparks, water resources parks, wetland parks, special ocean reserves, aqua germplasm parks, national parks, etc. Protected areas in the actual Chinese title of National Parks (国家公园) also appeared at the provincial level with ministerial endorsement, for the first time.

Meanwhile, existing old types of protected area continued to expand in scale and number. Nature Reserves had an accelerated mode of growth, set off by the state programs demonstrating the CCP's new determination in addressing ecologic catastrophe caused by a major flooding along the Yangtze River that claimed one million homes in the summer of 1998.[16] These programs gave local governments political and financial incentives to apply for the creation of nature reserves in their jurisdictions. Between 1996 to 2005 there were 1800

[16] The two most directly related programs are the *National Key Point Ecological Construction Project* (国家重点生态建设工程) managed by State Environmental Protection Administration (SEPA) in 1999 and *National Wildlife Preservation and Nature Reserve Construction Project* （全国野生动植物保护和自然保护区建设工程）initiated by Ministry of Forest in 1999 and taken effect in 2001 (Zou et al. p58).

Nature Reserves being established, making this period the fastest growing time for nature reserves (Ma et al., 2009).

Over these years of rapid development, many problems manifested in China's protected areas. The earlier nature reserves suffered from "paper parks" syndrome due to how they were hastily set up in a deregulated and financially decentralized context. In 1998 the State Council estimated that at least one third of China's Nature Reserves had "three withouts", i.e., without a management agency, without staff and without recurrent funding (State Council 1998). The percentage of "three without" nature reserves was estimated at 45% by 2006 (Su 2006). Many Nature Reserves even had no designated borders. But even for well-established protected areas, the administration was perennially troubled, due to often overlapping jurisdictions, lack of legal authority and chronical funding shortages. The next section looks in more detail at the problems tied to the regulation and administration of China's conservation areas.

Part III. Regulatory and Administrative Structure of China's Protected Areas

Seen from the outside, China is not unique in terms of its segmented subunits of nature and heritage conservation. And not unlike many other countries, China's protected areas are administered under different state agencies with a variety of legislation and regulations at different administrative levels. However, it is worth taking a closer look at how China's protected area system was entrenched in a decentralized unitary bureaucratic state, particularly in the dynamic context of increasing pressure and demand for conservation, a rapidly- growing tourism industry, as well as the constant central and local drives for economic

development. Most importantly, conservation practitioners have felt the consequences of these institutional problems for protected areas management and conservation on a daily basis and have been problematizing the issues as the targets for reforms.

Administration Structure and Problems in of Protected Areas

China's protected area administration is often characterized as fragmented and under overlapping jurisdictions. China's bureaucratic system is known for being fragmented due to its horizontal and vertical divisions of authority and lack of institutionalized coordinating mechanisms so it requires bargaining for consensus and this often leads to policy-making deadlock at the top, and discretions and incompliance at the local levels (Lieberthal and Oskenberg 1988; Lieberthal 1997). When it comes to biodiversity and heritage conservation, the authority is similarly channeled (fragmented) by functions as well as by territorial bureaucracies (Lieberthal 1997). This is manifested in the few stand-out features of the protected areas administration, including the *departmental management* （分部门管理） particularly with the predominant type of protected areas, Nature Reserves; the so-called integrated relationship between the departmental management and *comprehensive management* （综合管理）; the *territorial government management* （属地管理）for most of the protected areas; and the overlapping jurisdiction over and within the protected areas.

1. Fragmentation along the Departmental Lines

China's protected areas are established and managed by up to 13 government agencies and ministries who are roughly parallel to each other in ministerial ranking and who set up and run protected areas in separated fashions. In following the same logic in setting up of nature

reserves, the ministries created protected area categories primarily based on their jurisdictional power over resources, for instance, the State Forestry Administration (SFA) oversees forest parks, the wetland parks and terrestrial wildlife protected areas while the Ministry of Agriculture (MOA) administers grassland reserves and aqua organisms. The biggest players involved in the conservation administration include National Environmental Protection Agency (NEPA), the State Forestry Administration (SFA), the Ministry of Construction and then Ministry of Housing and Urban-Rural Development (MOHURD), as they are in charge of nature reserves, scenic areas, and forest parks, the three main categories of China's protected areas (Xue & Jiang, 1994; Xue & Bao 1995).[17] However, the Ministry of Agriculture (MOA), Ministry of National Land and Resources (MNLR), Ministry of Water Resources (MWR), Ministry of Culture (MOC), State Oceanic Agency (SOA), National Tourism Administration (NTA), as well as up to at least 13 other ministries are involved in managing protected areas of different kinds. For instance, the State Administration of Cultural Heritage under the Ministry of Culture (MOC) is in charge of World Cultural Heritage affairs, while MOHURD is responsible for the application and supervision of World Natural Heritage sites as well as Mixed Cultural and Natural heritage sites. The National Tourism Administration (NTA) was in charge of all tourism management in protected areas.[18] At this level, the protected areas are fragmented along departmental managerial lines, without any comprehensive management from above. Departmental management by natural resources ministries relies on either natural resource laws that vaguely define conservation, or departmental rules or regulations that are weak in administrative

[17] The way that the MEP is involved in Nature reserves is complicated. See below.
[18] NTA was merged into the Ministry of Culture and Tourism in 2018.

powers and arbitrary when implemented by the same agency who is also in charge of the utilization of the resources.

2. Undefined Comprehensive and Departmental Managements over Nature Reserves.

Conservation administration is also complicated due to the unclear jurisdictions in the combined comprehensive management and departmental management over the key category of China's protected areas, Nature Reserves (NEPA 1994). According to the 1994 *Regulations of Nature Reserves* issued by the State Council, the administrative agency of environmental protection under the State Council is responsible for the comprehensive management of nation-wide nature reserves. And administrative agencies under the State Council for forestry, agriculture, geology and minerals, water resources and ocean, etc. oversee relevant nature reserves under their respective jurisdictions (Article 8, State Council 1994)[19]. However, there is no explicit stipulations on how the comprehensive management and departmental management are divided and integrated in the regulation (Wildlife Protection Division, SFA. 2003).[20] For one, the Ministry of Environmental Protection (MEP), previously NEPA and the State Environmental Protection Administration (SEPA), not only plays the supposedly comprehensive management role, but also directly runs nature reserves on its own (Jiang et all 1994; Ouyang 2002). This is in violation of the principle of comprehensive and departmental

[19] This is a general principle but in reality, the departments set up nature reserves that are under the jurisdiction of other ministries and departments in terms of resource types.

[20] In practice, the comprehensive management by NEPA/SEPA (and later MEP) includes integrated coordination, supervision and inspection of the conservation affairs, primarily organizing the reviewing of application for national nature reserves and advise on the approval decision and making plans for the development of nature reserves. The departmental management includes setting up, application for and approval of national nature reserves, making plans for reserves, running the reserves, and setting up the reserve administrative agencies (PPT sources to be checked. Or Xue 2000 but slightly different wording). Still, the line between comprehensive and departmental management of nature reserves is quite blurry.

management division. And the nature reserves, except the 5% directly run by MEP, are in *de facto* under the total control of their administrative departments, with the MEP only occasionally and remotely get involved for limited "comprehensive management." In sum, the players and referees are not clearly defined and separated in the game for nature reserves, a logical consequence of which is the lack of appropriate supervision, monitoring and enforcement of conservation policies in nature reserves. These blurred roles of administrative agencies also explain the incentive structure of the central environmental protection agency in the protected area reforms: SEPA appeared partial and un-principled from a conservational perspective, quite unlike its usual image as a reformer as shown in environmental reforms in other issue areas.

The departmental management of protected areas reflects China's administrative structure for natural resources management to a large degree (Ouyang et al. 2002). And China's nature reserves classification system is also aligned with departmental division of natural resources in China's central government. The total nine subcategories Nature Reserves, for instance, fall neatly under four natural resource management ministries, with the Ministry of Agriculture (MOA) in charge of five, the State Forestry Administration (SFA) responsible for two, the Ministry of Geology and Mineral Resources (MGMR) for one and the SOA (State Ocean Administration) for one (Jiang et al 1994). However, the suitability of the match is not in the absolute sense as Ministry of Environmental Protection (MEP), Ministry of Housing and Urban-Rural Development (MOHURD) and Chinese Academy of Science (CAS) have also created their

own nature reserves despite not having any professional natural resources management departments (Xue et al 1994). [21]

3. Local Governmental Capture of Protected Areas.

Despite all the fragmentation and segmentation at the bureaucratic level and horizontal divides, most of China's protected areas are under the management of the territorial government (Su 2004).

Similar to any administrative units in China, protected areas are ranked at various bureaucratic hierarchical levels, ranging from national to local, including provincial, city, and county levels, matching China's four-leveled administrative stratus[22]. Management and technical standards are set for the protected areas at different levels, with the national level being the most important and valuable with the highest management standards.

However, nature reserves, scenic areas and forest parks, similar to other protected areas, are all *de facto* managed by local territorial governments (Yang 2003). According to regulations, their creation is voluntarily proposed by the local government, and the personnel and funding for operations and construction of the protected areas are all provided by the local governments (Li 2016). For instance, the vast majority of nature reserves, even the national ones, are managed by local territorial governments.[23] Most surprisingly, some national nature reserves are even managed at the township level government (Ouyang et al. 2002). What this

[21] This basic matching between nature reserves classification and administrative structure of natural resources was confirmed in personal communication with the policy expert involved in designing the nature reserve classification standards, on Feb 9, 2019.
[22] Sometimes the local could be two levels at provincial and city/county levels.
[23] They are administered by departments in charge of forestry, environmental protection, natural resources and agriculture at provincial, city and county levels of governments.

means is that at least the personnel and budgets for the nature reserves, if not conservation work, are controlled by the territorial governments (and their administrative departments in charge) at various local levels.[24] This is structurally determined because funding from the central government for nature reserves is extremely limited, not for covering the routine operation of the administrative agency and conservation affairs. The central budget only supports program operations. According to China's administrative rationale, the administrative unit is only responsible for and accountable to the upper level administrative unit that allocates funding and takes charge of its personnel arrangement; and in the case of nature reserves, the reserves are held accountable to local governments (and its administrative departments) due to the territorial management arrangements, rather than to the central government and its administrative departments (Ouyang et al, 2002).

Scenic areas and ***Forest parks*** are similarly managed by local governments. According to the *Regulations of Scenic Areas (interim*), local governments approve the designation of scenic areas; and some scenic areas even set up their own governments to comprehensively administrate the designated areas (State Council 1985). In the 2006 Regulation the ranking of scenic areas changed to only two levels, the national and provincial. But the real responsibility continues to remain in the hands of lower level governments (State Council 2006). The forest parks are ranked in similar ways, and even the national title does not mean it is run by the central government. On the contrary, local governments provide all funding and personnel (Li

[24] There are exceptions to the territorial government management. Baishuijiang (Gansu Province), Foping (Shanxi Province), and Wolong (Sichuan province) are the three national nature reserves that are directly managed by MSF for the purpose of rescuing the Giant Panda bear (Ouyang et al. 2002). Thanks to Prof. Dayuan Xue for the reminder of this information.

2016). Wetland Parks, Urban Wetland Parks, etc. are similarly run by the government at a very local level.

This local capture of protected areas creates skewed incentives toward local government demands. As a *de facto* branch of local government, the protected area administration has to bow to any local governments' desire and plans for economic development and political pursuit. This creates similar effects to the local capture of the environmental protected agencies who not only have no real authority in pollution control or environmental protection but also have to function to cater to the local government's needs for economic development, for instance.

Table 2.2 Categories of China's Protected Areas, 1956-2017

Categories	Initial Year	Number	Area (10,000 hm2)	Supervising Departments
Nature Reserves	1956	2740	14703	State Forestry Administration, Ministry of Environmental Protection, Ministry of Agriculture, State Ocean Administration, Ministry of Water Resources, Ministry of National Land Resources, Ministry of Education, Chinese Academy of Science, etc.
Scenic Areas	1982	1025	1950	Ministry of Housing and Urban-Rural Development
Forest Parks	1982	3234	1802	State Forestry Administration
World Heritage Sites	1987	53		Ministry of Housing and Urban-Rural Development; Ministry of Culture; Ministry of Education, along with other ministries (Ministry of National Land Resources, State Forestry Agency, Ministry of Environmental Protection, State Administration of Cultural Heritage, National

				Administration of Religious Affairs, National Tourism Administration) *
Geoparks	2001	428	No data	Ministry of National Land Resources
Aqua Germplasm Reserves	2001	464	1280	Ministry of Agriculture
Wetland Parks	2005	1263	357.8	State Forestry Administration
Ocean parks	2011	30	654	State Oceanic Agency
Special Marine Reserves	2011	26	36	State Oceanic Agency
Desert Parks	2013	55	29.7	State Forestry Administration
Sandification Land Reserves	2013	53	113.7	State Forestry Administration
Protected Micro Areas	1992	50,000	150	State Forestry Administration
In Situ Protection Points	2002			Ministry of Agriculture, State Forestry Administration
National parks (Experimental sites) [25]	2015	9	4744.49	National Development and Reform Committee**

Compiled from Tang & Luan, 2017

* Yang et al. 2016 p166.

**Peng et al. 2018. P317.

4. China's protected areas are administered under overlapping jurisdictions at multiple levels.

China's conservation areas not only suffer from fragmentation of administrative agencies, but also have to bear the nettlesome consequences of the overlapping jurisdiction. The most significant overlapping occurs in the multiple designations of the same (or approximately the same) protected areas. The designation of protected areas is not exclusive, meaning the same nature reserves can also be designated as forest parks, scenic areas, and many other titles. For

[25] National parks endorsed by ministries started in 2007, in Yunnan and Heilongjiang Provinces, respectively. However, since the start of the National Park System Reform, particularly its Pilot Project Plan in 2015, the State Council announced that all previous designated national parks by different ministries or local governments are invalid, with the only 9 experimental National Park sites qualified as National Parks.

instance, the Jiuzhaigou （九寨沟）scenic area in Sichuan province concurrently holds the titles of national scenic area, national nature reserves, national geoparks, World Natural Heritage, Biosphere Reserve, 5A -rated national tourist attraction and Green Global 21st Century site[26] .This is common for many protected areas that are rich in scenic and natural resources, particularly those that are promising for tourism development.

These multiple and overlapping designations are made possible partly because the local governments have the incentives to propose for designations of different types of protected areas, and partly because the state regulations did not prohibit this practice. Only in recent years has the state started to curb some of these overlappings, mostly with nature reserves. However, the prohibition is not consistent across different types of protected areas and does not apply to previous cross-type designations. The recently revised version of *Regulations of Scenic Areas* (State Council 2006) and the recently issued *Administrative Measures of National Wetland Parks* (SFA 2017), for instance, prohibit the creation of new sites that overlap with nature reserves. Meanwhile, there is no regulations addressing the issue of overlapping among protected areas except with nature reserves.

At a different level, nature reserves are also administered under overlapping jurisdictions from within because of the same natural resource management rules. For an example, in a typical tropical mangrove forest nature reserve, the ocean and coastal zone is under the control of the SOA, shallow sea and aqua organisms are the responsibility of agriculture department,

[26] https://www.jiuzhai.com/.

while the forests and birds living in the woods belong to the forestry department (Jiang et al, 1994).

As stated earlier, each type of conservation area and their responsible ministries have their own regulations and administrative rules. When overlapping, the system becomes very complicated with no clear line of authority or jurisdiction to follow. Fragmentation and overlapping jurisdictions are not necessarily detrimental if the legal system can coordinate all the players involved in the conservation system. Unfortunately, this is not the case with the protected areas in China.

Legislative and Regulative Structure and Problems of Protected Areas

As many experts have frequently asserted, the root cause of all the above problem lies in the so-called lacking (缺位), of a national legislation that lays down basic rules to adjudicate any disputes arising from the above bureaucratic quagmire. Put bluntly, there haven't been any basic laws specifically concerning nature conservation and protected areas in the PRC.

Reflecting China's regulatory hierarchies, China's protected areas are regulated at a few levels. First, on the national legislative level, Chinese constitution and national laws makes stipulations regarding conservation and protected areas, but not with elaborated institutional arrangements and systemic prescriptions; second, departments in charge of conservation and natural resources management issue *administrative legislations* （行政法规）and *departmental rules* （部门规章）in terms of protected area administration under their jurisdictions; third, protected areas are regulated by policy documents as well. In addition,

China joins international environmental treaties which stipulate different tasks and goals of conservation.

1. **National Constitution, Environmental Protection Law and Natural Resources Laws.**

The constitution of PRC provides that the state protects the environment and ecology and prevents pollution; it also provides that it ensures reasonable utilization of natural resources and protects wildlife (National People's Congress 2018). Under the constitution, the *Environmental Protection Law* is the foundational law in regulating environment and ecological conservation. It states that governments at all levels have the responsibility in protecting critical ecosystems, wildlife species, natural and cultural heritages; however, it primarily focuses on pollution prevention and this seems to echo the national government's priorities in tackling environmental pollution over biodiversity conservation. The recently revised *Environmental Protection Law* (2014) continues to remain focused on pollution issues and pays little attention to conservation, particularly on issues related to protected areas (zhongguowang 2013). A few pollution prevention laws also mention issues of conservation but without any elaboration.

2. **Conservation regulated through natural resources Laws**.

There are other conservation related laws enacted over the years, many of which provide basis for protected area administration in respective resource areas, including forestry, grasslands, fishery, water, water and land conservation, etc. These laws provide the basis for the designation of nature reserves, as well as issues related to logging, hunting, fishing, and similar bans in the different resource areas (Zou et al 2013). For a list of relevant national laws and legislation see Table 2. However, these laws put more emphasis on the sustainable uses of natural resources instead of institutionalized conservation (Wang et al, 2006).

Table 2.3: Laws in Natural Resources Management

Title of Laws/Regulations	Years
Forestry Law of PRC	1984, 1998
Grassland Law of PRC	1985, 2002
Fishery Law of PRC	1986, 2000
Water Law	1988
Wildlife Protection Law of PRC	1989
Coal Law	1996, 2009
Law of Mining Resources	1986, 1994
Law of Land Administration	1986, 1988, 2004, 2018
Law of Water and Soil Protection	2010
Marine Environmental Protection Law	1982, 1999, 2016
Administrative Regulations of Wild Medicinal Herbs	1987
Environmental Protection Law	1989, 2014

3. Administrative Regulations regarding protected areas and nature conservation.

There haven't been any basic laws specifically concerning nature conservation and protected areas in the PRC. [27]And PRC legislation specifically regarding protected areas are mostly enacted at the lower levels of the legislative hierarchy, as the *administrative regulation*

[27] Laws in here refer to those legal documents enacted by National People's Congress or its standing committee.

（*xingzhengfagu*i） and *department rule* (*bumenguizhang*) [28] These two categories of legislation are not particularly powerful. Two types of protected areas, nature reserves and scenic areas, enjoy higher legislative status among all types of areas. The *Nature Reserve Regulations* (1994) and the *Regulations of Scenic Areas Administration (Interim* 1985, 2006) are both issued by the State Council and therefore enjoy a semi law status as *the administrative regulations*.

Nature Reserve Regulations directly regulate Nature Reserves and represent the most important legal document for nature conservation in China, providing the legal basis for setting up and administrating Nature Reserves. Based on the *Nature Reserve Regulation*, administrative departments and ministries issue specific department rules for nature reserves under their jurisdictions, for instance, the *Administrative Measures of Marine Nature Reserves* (1995) by State Oceanic Administration, the *Rule on Protection and Administration of Geological Relics* (1994) by the Ministry of Geology and Mineral Resources, or the *Measures in Protection and Administration of Aquatic Nature Reserves* (1997) by Ministry of Agriculture, etc. These *administrative measures* and *department rules* are derived from administrative regulations and considered lower in their adjudicating power.

The Ministry of Housing and Urban-Rural Development (MOHURD)'s *Administrative Regulation on Scenic Areas* stipulates the responsibilities and institutional arrangements for conservation and tourism development in scenic areas. In contrast, forest parks under the SFA

[28] Chinese legislation is ranked at five level hierarchy from the top to the bottom categories, including law (falv), administrative regulation (xingzhengfagui), local regulation (difangfagui), autonomous regulation (zizhitiaoli) and separate regulation (danxingtiaoli), department rule (bumenguizhang), local government rule (difangzhengfu guizhang), with the last three in debatable and case-by-case relationship (Ma 2013).

only had *Administrative Measures of Forest Parks* (1994, 2011, 2016) issued as a *department rule* at a lower level than the administrative regulations, pronouncing the SFA as the bureaucratic organization responsible for the administration and market operation of Forest Parks. There are legislations and regulations regarding protected areas at the local governmental and departmental levels as well, specifying the rules on the administration of protected areas in the province or other jurisdictions.

4. State and party policy documents.

China's protected areas and biodiversity conservation always fall under the regulation of policy documents from the government and the party. The general documents include the five-year plans, Party Congress Communiques and other guiding documents. Specific policies are exemplified by *Action Plan for China's Wetland Conservation* (2000), *Action Plan for China's Biodiversity Conservation* (1994), *Outline for the Plan for the development of Nation-wide Nature Reserves* (1996-2010), *Overall Plan for the Project of Nationwide Wildlife Conservation and Nature Reserves Construction*, etc. (Wang et al 2006). China also issued the national *21st Century Agenda* (State Council, 1994), and in 2010 it enacted the *National Strategy and Action Plan in Biodiversity Conservation*, 2011-2030 (State Council 2010).

5. International Treaties.

In addition, China joined international environmental treaties including *Ramsar Convention of International Wetland*, *Convention of Biological Diversity*, *Convention on World Heritage*, etc. It signed in the *UN Framework Convention on Climate Change* (Kyoto Protocol), *Nagoya Protocol* and *Paris Accord*. Its ratification of these treaties and participation of international

environmental programs such as the Man and Biosphere program brings international norms and expectations to the domestic policy sphere. These international treaties and programs obligate China to enact legislation on designated protected areas. The Ministry of Culture issued *Administrative Measures of World Cultural Heritage* in 2006. SFA and MOHURB issued administrative measures for wetland parks and urban wetland parks, respectively. The *Action Plan for Wetland Protection* is a direct result of China's participation in the Ramsar Convention on Wetlands of International Importance, and in recent years the central government has earmarked 2 billion RMB on the annual basis for the Wetland Protection Action Program (He 2016, Chapter 6).[29] Following the *Action Plan for China's Biodiversity Conservation* (1994), the State Council issued the *National Strategy and Action Plan for Biodiversity Conservation* 2011-2030 (State Council 2010).

After taking such an inventory of these labyrinth-like Chinese bureaucracies, everybody probably feels dizzy. For practitioners in the conservation field, this situation presents constant frustration to try to figure out how to operate within a system with so many governmental agencies in charge, as well as layers and layers of regulative documents with no ultimate adjudicating legislation and institutions. If anything, conservation suffers as a result. In my field work in Yunnan in 2015, it was common to hear complaints from local conservation officials and practitioners about the lack of legal and administrative authority in enforcing conservation policies. This is not to deny the existence and success of some conservation areas and programs

[29] Interview Feb 28, 2019.

in achieving heroic progress in saving biodiversity. However, the institutional problems are real and have undoubtedly shaped conversation efforts throughout China.

Part IV. Closing the Gap: Conservation Area Reform in Two Decades

The problems in conservation areas administration haven't gone undetected. As early as 1998, a State Council document already called out some nature reserves for being the "three without" nature reserves, aka, the conservation areas only existing in paper, due to their institutional weakness. Grassroots practitioners in conservation areas also constantly brought up their concerns and frustration during consultative meetings and through investigative reports by academia and bureaucratic agencies. Heeding these voices, the state has formally started its reforming process in the legislative track since the early 2000s. During this process, both the reform goals and issue framings informing the reform agenda drastically shifted back and forth.

The earlier reform concerns focused primarily on nature reserves, which as discussed in previous sections, were informally deemed as equivalent to China's protected areas. And the prevailing views on the issue were that China lagged in legislation in nature conservation, particularly a foundational law that was separated from existing environmental protection laws and natural resources laws and able to coordinate and adjudicate the existing conservation institutions.

A survey of academic publications by key words of nature conservation legislation (*ziran baohu lifa*, 自然保护立法) on the Chinese database CNKI yields revealing results. Throughout

the 1980s, there were a few sporadic journal articles on nature conservation legislation in foreign countries, all published in general legal academic journals. Starting in early 1990s, there were about ten articles, about one each year on the average, on the issues of legislation on nature conservation in China, mostly published in environmental and natural resources management related academic journals. With the first one appearing in 1992, a stream of research articles came out, some by a legislative research team at NEPA/SEPA and influential environmental legal experts, providing academic diagnoses of problems in conservation institutions. The articles were consensual about the issue definitions. They all claimed that both China's natural resource laws were not adequate in addressing conservation problems, and China urgently needed to enact a nature conservation law, because the lack of coordinating legal instruments underlie all the institutional problems we have observed (China Institute of Environmental Science 1995; Gao 1996; Wang 1996; SEPA 1996; Tian 1999; Tan 1999). The authors of these articles mostly come from major research institutes in the field. For example, in the years 1995 and 1996, writings in the published articles reveals that many ministry-associated research institutes were involved in researching on nature conservation laws in China, including the China Institute of Environmental Science, China Academy of Science, Legal and Political Division of NEPA, Conservation Legislation Research Team of the Division of Nature Conservation of SEPA and China University of Political Science and Law. Some of these articles proposed legislation in nature reserves, with vivid cases of important nature reserves at national levels that got into trouble due to the lack of legal authority and clarification on issues of conservation within the reserves.

There is evidence that the top state organizations involved in legislation and regulation of environmental protection and natural resources management closely collaborated with the legal expert community on the research. It was not surprising that the problems of protected areas caught the government's attention, particularly in the form of nature conservation legislation. However, the reform unfolded in a quite unexpected way, with the most surprising institutional results coming about through a three-phase process.

The Protection Area System Reform in Three Phases

Phase One: In a problem-driven fashion, China initiated its conservation reform with legislative drafting for its primary conservation system, nature reserves (NR) in 2003.

In this year, legislating on nature reserves administration was put on the legislating plan of the Tenth National People's Congress (NPC) by the Standing Committee of the NPC. *Nature Reserve Law* was listed in the second category of planned legislation,[30] indicating less readiness of the legislative content than the items in the first category. The legislative task was put in the hands of the Environment Protection and Resource Conservation Committee （EPRCC）[31], one of the special committees in charge of legislation in specific policy areas in the NPC (Remin wang 2003).

The dominant government agencies in the field, the State Environmental Protection Agency (SEPA) and State Forestry Administration (SFA) each proposed legislative bills that

[30] *legal drafts under researching and drafting, to be submitted for deliberation when condition is ripe.* There were totally 17 legislative items for the second category.
[31] Quanguo renda huanjing ziyuan baohu weiyuanhui 全国人大环境与资源保护委员会。

conspicuously advanced their own departmental interests. The EPRCC swiftly changed the drafting objective to an overarching legislation for China's protected areas, a huge track change as it extended the categories that the law was supposed to regulate way beyond the nature reserves to a broad IUCN protected area system. These protected area legislation drafts met strong pushbacks.

Phase 2: facing strong opposition and closing off of the political window, protected area legislation dropped off the table. The legislative plan for nature reserves, however, was kept on the legislative agenda following the 11th NPC in 2008 (NPC Newsletter 2008), in the same second category. This indicates that problems in nature conservation legislation were persistent and the NPC would continue to work out a reform legislation.

Under its new leadership, EPRCC pushed for a brand-new legislative proposal: a natural heritage conservation law. It intended to put the "two most valuable" of China's conservation areas, nature reserves and scenic areas, under one new category—natural heritage--and legislate on their administration. It managed to gain approval from key stakeholders and got very close to being submitted to the NPC for the formal deliberative process. However, the opponents grew stronger and a mobilized campaign leading to China's annual political consultative meetings drove this legislative plan off the table.

Phase 3: In the following 12th NPC in 2013, the NPC's legislative plan was changed to a more flexible three-tier scheme[32]; yet legislation on nature conservation was eliminated from

[32] The legislative items were classified into three categories from two, with the original second category further broken down to those *in need of urgent research and drafting* (category 2) and those *in need of continued research due to non-ripe conditions* (Category 3) (NPC 2013).

the list. The only indicator that the central state was continuingly working on conservation areas reform is a bold and bewildering announcement of the goal of constructing China's national park system by the new party leadership under Xi Jinping in 2012. While the policy community was busy unpacking the pilot national park system reform, the protected area ideals quickly emerged in the reform document and reset the initial reform agenda to "constructing a protected areas system led by national parks as the main body"(State Council 2017); in the following year, through the biggest administrative restructuring reform since Xi Jinping took power, natural resources administration underwent a radical reshuffling: among other changes, major conservation related functions and administrative agencies were removed from the hands of the divided ministries and put under one single newly created agency, the National Park Agency. While the exact categories that will be set up under China's new protected area system continue to be debated and developed, the central government has issued directives in firm tones and plans on the policy goals in constructing a "scientific and reasonable" protected area system in a step-by-step fashion for the next two decades down the road (2019). It also has issued guiding principles on protected area administration including classification according to the conservation functions and administration according to protected area (PA) categories and internal zoning. The 2019 state document also plans to complete the merging, integration and "opitimalization" of protected areas with the establishment of a comprehensive system of administration and regulation with oversight mechanisms by 2025.

Conclusion

China's protected areas are developed rapidly and administered in fragmented systems that were built on the PRC's resource-type based natural resource administrative structure. A key piece of conservation regulation in 1994 consolidated such fragmented institutions while popularizing a set of management standards that took no consideration of the prevailing international ideas in classifying and administrating national parks and protected areas. Other governmental agencies set up their conservation system following similar principles. China's institutional inadequacy in nature conservation has increasingly manifested in its inability to prevent biodiversity loss and encroachment on biodiversity from overdevelopment, something that has been recognized within the policy community as a problem to be addressed.

China initiated institutional reform in the conservation sector in early 2003. During this process, the reform goals have significantly shifted, along with the issue framing that informs the institutional solutions. China's deviation from international norms and practices in protected areas administration wasn't recognized in the initial reform agenda. The reform started off as an attempt for a nature reserve legislation, but kept shifting the proposed legislative content from nature reserves to a protected area system and then a natural heritage system; the state then dropped the reform legislation from the agenda and waged a national park system reform from the administrative track. As this process unfolded, a protected area system reform reemerged and was fully elaborated in a restructuring reform of China's government agencies.

Despite being ongoing, China's protected area system reform has made a sea change in the conservation field. Normative changes, bureaucratic restructuring and real policies have all being happening with real effects. In the next chapter, we will turn to explaining why these changes have happened.

CHAPTER TWO

Explaining Environmental Norm Success in a State-Corporatist Technocracy:

A Modified Multiple Stream Framework

Introduction

In modern times, decision makers are drawn to scientist and experts for their provisions of *rationality* and *legitimation* (Jones 2019). But the rise of technically complex and uncertain issues renders scientific advising more complicated as expert opinions are shown to be subjective, value-latent and often in disagreement with each other. For an authoritarian developmental regime, when there is neither institutionalized public participation nor direct political intervention, a *technocracy* would presumably dominate the scene. This situation raises the questions about the relations between bureaucrats and the expert community at the core of an authoritarian technocracy. How do bureaucrats interact with experts to come up with decisions in the authoritarian technocratic model? Do the best technical ideas prevail as suggested by authoritarian environmentalism? And if so, how and under what conditions?

Chapters One through Five of my dissertation inquire into these issues by examining the process behind the adoption of a prevailing international norm—protected areas—in China's conservation area reforms. My dissertation presents the decision making in China's conservation area reform as one of the three models at the science-policy interface, an

authoritarian technocratic decision-making model, specifically a *state-corporatist technocracy* in which bureaucrats and scientist are often aligned against science-based environmental norms. As Chapter One lays out, China's protected area reform emerged from a very path-dependent institutional context, with bureaucratic patrons seeking to reinforce their turf interest by advancing ad hoc policy solutions. Protected areas reform has no clear bureaucratic patrons and has been resisted from both the left and right, including many policy experts. How did such an idea prevail?

Most existing theories of norm and policy change under-specify the regime effects of authoritarianism and cannot explain the protected areas puzzle. I argue that agency-centered public policy theories need to bring the political and administrative states to the fore. I propose a relaxed and refined Multiple Stream Framework (MSF)—a Modified Multiple Stream Framework (MMSF)—as a theoretical framework for explaining the environmental norm success in the authoritarian technocratic decision making. The MMSF maintains the analytical structure on the development and intersectional effects of the three steams: political, problem, and policy, as outlined in Kingdon's MSF, but relaxes the assumptions that limit the application of MSF to political settings beyond liberal democracies. This allows us to take into account the structure and development in the political stream including both the political and bureaucratic states, while paying attention to policy ideas (alternatives) and political actors, and therefore provides an analytical framework for the interactive process among these factors.

I argue that two key assumptions of MSF are context dependent on liberal democracies and don't fit the mixed process of policy formation and agenda decision in authoritarian settings. First, there is a blurring of predecision and decision-making process, the demarcation

of which was essential in Kingdon's analysis; and second, there is particularly the occurrence of "empty coupling" which defies Kingdon's assumption that policy alternatives are always "softened up" (ready) prior to the coupling and the decision-making process.

In the MMSF, I opt for a relaxed process in which policy formation and decision-making take place together. The purpose of this modification of MSF is to shed light on the interactive process of policy expert consultation, the exact bureaucrat-scientist inaction at the heart of the *state-corporatist technocratic* decision making. This dimension of the agenda setting of authoritarian decision making would be obscured if MSF is directly applied without modification.

My analysis of the environmental norm decision process under a MMSF theorizes on the following two aspects of the causal relationship, political salience and the policy community, especially the entrepreneurial norm agency—epistemic community.

First, this MMSF allows us to bring in both the *regime factor* and the (bureaucratic) *state factor* of authoritarian states into to the theorization of norm impacts. While administration turnovers, social mood change, etc. still count as the primary factors in the development of political streams, I argue that they contribute to the norm decision process but through a mechanism of **changing the political saliency** of the issue within the system in authoritarian states. For instance, when the state undertakes ideological updating or leadership turnovers, the political saliency of the policy issues could change with the attention level they receive in the political stream. The ramification of the political saliency change is multi-fold, including *change of decision making agency* within the bureaucratic hierarchy, along with different

incentive structures in terms of needs for justification and legitimacy, and sometimes the *technical feasibility* (Kingdon 1984) of different alternatives due to the change by larger structural reforms that affect the viability for various proposed *solutions* as well. The higher the political saliency, the more incentives for the decision makers to seek justifiable and legitimate alternatives, and sometimes even with more viability to pursue the alternatives.

Second, in place of Kingdon's policy entrepreneurs as the agency of change agency, given the scientific complexity of the issues, I first refine his concept of policy community to bring back in a power structure between bureaucratic decision makers and the other members. In a state-corporatist technocratic decision model, this policy community consists of knowledge-based policy actors, experts, and bureaucratic decision makers. In particular, I focus on the interactions and relationships among bureaucrats, the expert community, and an epistemic community. An **epistemic community** is "a network of professionals with recognized expertise and competence in a particular domain and an authoritative claim to policy relevant knowledge within that domain or issue-area" (Haas 1992b). An epistemic community is knowledge based, holding a normative and causal consensus on a complex policy issue, and this distinguishes them from most other policy actors who are interest bound together.

Essentially, in a state-corporatist technocracy where bureaucrats and scientists are aligned against an environmental norm, the norm change occurs when the three streams in politics, problems and policy flow together, and in which the political opening creates incentives for state bureaucratic decision makers to seek more legitimacy by aligning with the epistemic community and their policy proposals. When events in the political stream bring the issue to higher salience, bureaucrats are pressured to seek a policy solution that appears to be

more interest-neutral, scientific and rational than other alternatives; and the epistemic community, who is mobilized to push its policy consensus, provides ideal solutions.

Table 3.1: Norm Impacts and Epistemic Community Contestation

POLICY Impacts		Epistemic Community	
		absence	presence
Political Stream Developments	Low saliency	ad hoc/fragmented change	Contestation (changing framing, taking over agenda, circumventing policy options, etc.)
	High saliency	Unstable/rapid change	Norm prevalence

In the remainder of this chapter, I will first present China's conservation area reform as a process dominated by a state-corporatist technocracy. I then proceed to elaborate on a MMSF as the theoretical framework of this decision process. After examining the existing literature on norm and policy changes and discussing their inadequacies, I introduce MSF and proceed to discuss its applicability to China. By highlighting the problematic underlying assumptions, in terms of both its rigid demarcation between predecision and decision process, as well as the assumptions about alternatives and its "specification" process, I propose a MMSF with the epistemic community and the bureaucratic state at the center. The epistemic

community and particularly the epistemic community in biodiversity is introduced in the last section before concluding.

PART I. Protected Area System Reform in a State-Corporatist Technocratic Governance Model

China's protected areas reform represents key features of a *state-corporatist technocratic* decision model.

A *technocratic model* suggests that policy problems can only be solved by experts, not the politicians, due to the complex nature of the policy issues. A Habermasian technocracy consists of two dimensions: first, both the policy end and means are decided by scientists and experts; second, policy problems are possibly formulated by the public (Kowarsh 2016). An authoritarian technocracy, I argue, does not need to contain the second dimension, and that cuts short the democratic leadership and accountability in responding to the problems deemed important and framed by the public.

Many issues in authoritarian regimes fall under this broad category of decision-making model where bureaucrats increasingly rely on scientists and technical experts to come up with solutions to governance challenges on complex issue. However, a more routine type of technocracy observed in China demonstrates further traits that can be described as a *state-corporatist technocracy*, a state controlled but inclusive expert consultative process through various formal and semi-formal venues.

Why is it a "*state-corporatist technocracy*"? This technocracy is first and foremost a state-controlled expert consultation mode in which the state sets up formal and semi-formal consultative and advisory committees, forums, conferences and other institutions for key decisions. It is a *state corporatist* technocracy in the sense that the consultative panels are inclusive of scientists, scholars, experts and bureaucrats representing almost all relevant national government agencies, academic disciplines, and some social groups including prominent international organizations, similar to the corporatist science-policy arrangements in some European states (Brown 2005). The general public and lay people are excluded, but some of the experts and bureaucratic agencies, in addition to the few invited NGOs, supposedly represent them in a delegated way.

China's conservation areas reform unfolded in this type of consultative decision mode, largely confined to the top decision level with expert consultation initiated by the national governmental agencies. The consultation ensures that the selected experts come from all relevant ministries or their associated research institutes, covering major fields and disciplines relevant to the topic, inviting experts and scholars from major universities and regional institutes. The general public and lay people are excluded from the reform decision process. Given the international involvement in China's conservation field, selected established international environmental non-governmental organizations (NGOs) get invited while domestic environmental NGOs are occasionally present as well. World Wildlife Fund (WWF), the Nature Conservation (TNC) and the domestic NGO, Friends of Nature, for example, are some of the main organizations who are frequently invited for consultation. Yet even the international NGOs consider their role as purely technical. One interviewee from a top

international organization involved in the conservation area reform commended that "this is a top-level institutional design and how can the general public understand such issues?"[33] Similar statements were repeatedly made by different experts or bureaucrats I interviewed during my field work. And conservation area reforms almost never made it to national media headlines until after 2013 when Xi Jinping announced his national park reform. Still, throughout the two decades of reform there were no major media campaigns that generated broad public interest on the issue. Even more revealing of the state-corporatist nature is how the citizens who would be most directly affected by the reform due to their residence within or near conservation areas—approximately 60,000,000 residents in total by one account (Harkness 1998; Bedord & Jin 2016) —were only loosely represented by high-level experts and academics (for example in fields of rural development or conservation) and government officials during the consultative decision making process.

However, scientists and experts often have ties to the ministries and represent their interest when making proposals and debating the drafts. Nature conservation at the national level involves more than ten ministries, with key players such as the Ministry of Environmental Protection (MEP), the State Forestry Administration (SFA), the Ministry of Agriculture and the Ministry of Housing and Construction all having high stakes in the existing system and frequently not willing to give up their interests easily. Experts at the consultation tables also tend to fall in line with their ministry patrons. When the unified protected areas reform was first proposed as a reform solution in the mid-2000s, it was quickly shot down, opposed by key

[33] Interview August 2016, Beijing.

ministries and their experts. A later proposal to enact a natural heritage conservation law may not have been as technically convincing, but it still managed to gain the approval from most experts at the consultation table.

In this case, it is puzzling as to where the ideas of a national park system reform came from, and why a protected area system reform emerged in this process and ended up becoming the ultimate goal of the national park reform? Existing literature is inadequate in explaining these puzzles and I propose a new theoretical framework in the following section as a solution to this puzzle.

PART II: A Modified Multiple Stream Framework

I. Existing Literature on Norm Change

Both international relations and comparative politics literature offer insights into institutional change in relation to international norms at the national level. Yet most of them are not sensitive to non-democratic institutional contexts or do not theorize the regime factor enough; some public policy theories propose norm agents but are oblivious to the knowledge dimension of the state-science-public interface.

Debates in IR literature center around whether the national decision to adopt international norms is a function of structural interests or ideas diffusion through socialization. The realist theory assumes the state acts as a unitary actor in the international arenas of anarchy and makes decisions based on its survival interests in the competition for power and domination

(Waltz 2010). Yet, when it comes to nature conservation, particularly regarding national institutional arrangements for protected areas, consideration of national security and global economic competitiveness is not directly relevant and cannot help us understand why the state favors one type of protected area institution over another.

The rival theory of the structural realism comes from a couple different "waves" of constructivism who emphasize the impacts and processes of the spread of ideas at the international and domestic levels (Cortell and Davis 1996, 2000; Acharya 2004). The "first wave" scholars pay attention to the "causal mechanisms and processes by which…ideas spread" (Risse, Ropp, and Sikkink 1999, 4) for their primary interest in how norms affect state behaviors by providing solutions to coordination problems at the international level (Stein 1983; Martin 1992; Finnemore 1993; Finnemore and Sikkink 1999). And the second wave moves down to the national level and investigates how domestic structure and agency condition normative change (Cortell and Davis 2000; Acharya 2004). While they identify useful factors such as state and social actors or political structure and state-society relationships, they are limited in incorporating ideas, agency and state structure and politics into a general framework that explains policy variation over time. For instance, Cortell and Davis argue that the level of centralization and the distance between the state and society in the decision making are key to the norm impacts, while domestic saliency of norms is also critical (Cortell and Davis 1996; 2000). The problem is that the regime and policy-specific institutional features are relatively fixed and cannot explain changes of policy within one system over time.

Public policy literature also pays attention to ideas and the agency behind the ideas as primary drivers of policy change. Policy entrepreneurs (Kingdon 1984), issue networks (Helco

1978), policy communities (Walker 1981) as well as advocacy coalitions (Sabatier and Jenkins-Smith, 1993) are often identified as the group actors responsible for drastic institutional or policy changes departing from the piecemeal and incremental reform decisions derived from the institutional status quo (Lindblom 1959).

The identification of the policy entrepreneur is one breakthrough in studies of Chinese politics. Andrew Mertha (2008) argues that the pluralization within fragmented authoritarian (FA) political system allows the emergence of networks of government officials, journalists and social organizations—policy entrepreneurs—who engineer contending issue frames over the official ones and affect the policy decisions when their framing is triumphant. This theory, FA 2.0, is applicable to our case in the same sense that simple bureaucratic infighting in original FA cannot explain the sudden shifts of policy proposals, some of which have no ministerial backups. Despite bringing in significant theoretical breakthroughs, Mertha's account of the policy entrepreneur only represents the start, not the end, of theoretical inquiries of policy change within FA. Mertha treats the political structure largely as a backdrop except that its interest conflicts and pluralization generate policy contenders; and the framing as an explanatory variable creates some degree of tautology because the domination of environmental framing over the official ones is more of a sign of success of the policy entrepreneurs that needs further explanation. Moreover, the idea agent, the policy entrepreneurs in the FA 2.0, are identified at the margins of the bureaucratic state on the project level; they are not particularly united around ideas and are too broad a category for the protected area reform actors whose most distinct characteristic is their prestigious status as elite scientists and technical experts, at the decision-making core of the state.

Another theoretical model that focuses on experts in environmental policies is authoritarian environmentalism (Gilley 2012). In this model, the decisions are made by environmental elites at the top of an authoritarian regime who are able to block social and political interests and develop optimal and rational solutions to environmental problems. This is actually closely related to an authoritarian technocracy model, possibly in its purest form (Kowarsh 2016). The problem is that Gilley's model was not interested in theorizing about the conditions for this extreme technocratic model, while our case on conservation institutional reform indicates that the authoritarian state rarely enables the rational environmental decisions due to its inability to overcome fragmentation. Even for the consensual expert opinions to prevail, too many conditions need to be met on the contingency basis, and mobilization and advocacy are required to overcome resistance from entrenched interests. Authoritarian regimes do not naturally enable rational environmental decisions by being authoritarian, i.e., excluding social, economic and political interest.

In the following sections I will propose a new theoretical framework based on Kingdon's Multiple Stream Framework.

II. What is Multiple Stream Framework?

In the analysis of policy decisions, particularly of sudden changes, John Kingdon develops a framework for public policy process. It is basically comprised of five elements including the three separated streams, coupling and policy entrepreneurs.

Essentially, there are three separate process streams flowing in the system—streams of problems, policies and politics. They are largely independent of each other and each develops

according to its own dynamics and rules. But at some critical junctures, the three streams are joined, and great policy change grow out of this coupling of problems, policy proposals and politics.

During the time of coupling, "solutions become joined to problems, and both of them are joined to favorable political forces. This coupling is most likely when policy windows-opportunities for pushing pet proposals or conceptions of problems-are open" (Kingdon 1984, 20). Critical to the coupling process are the policy entrepreneurs who devote their resources to the adoption of their pet proposals and who couple their proposals to the political and problem streams.

The contribution of MSF lies in its ability to explain sudden policy change in a way that the structural, rational and incrementalist explanations fall short in addressing (Kingdon 1984,71). It highlights particularly how ideas come into interaction with crises, leading to the enhanced attention to issues, as well as the development of events in the political sphere including changing the national mood, administrative turnovers, civil society campaigns, etc. And the individual role of policy entrepreneurs is also critical for the coupling that is essential to the agenda change in Kindon's account.

III. Applicability of MSF: Beyond its origins and in China

Organized anarchy in the Party State of China

Kingdon's Multiple Stream Framework (MSF) is based on the U.S Federal political system. The scope of MSF application has been stretched beyond its origins and has been

applied to various issues in countries and areas beyond the original setting. Jones et al identified 311 articles that meaningfully applied MSF in the period between 2000 to2014, many of them being studies of the U.S (132) but most of them focused on the rest of the world (Jones et al. 2016; Herweg 2015; Cairney & Zahariadis 2016; Beland & Howlett 2016). In particular, 205 of these studies apply MSF to European countries and/ or the European Union, including 53 studies in the UK; while 140 of studies are outside of the US and EU (the total is greater than 311 because many articles compare multiple systems). In total, at least 65 countries are covered by MSF. Further, approximately one-third of these involve applications of subnational policymaking (Cairney & Zahariadis 2016).

The scope of application MSF demonstrated in the above cases, however, is still mainly confined to advanced democracies. How universal is the framework to public policy analysis across countries and political systems? Can it be applied to a communist party state with no separations of power as in the US"[34] Previous studies of the public policy process in China using MSF, despite being limited number, positively confirm the applicability of MSF in most cases. Most of them simply apply the framework without dwelling on the theoretical justification of the borrowing. As an exception representing groundbreaking research on law making in post-Mao China, Scott Tanner (1999) argues that contrary to many China scholars' perceptions of Chinese decision-making system as centralized, unitary and rational, China's law-making system resembles an "organized anarchy", the assumption upon which Cohen, March and Olsen built their Garbage Can theory (Cohen, March & Olsen 1972) and Kingdon built his MSF (Kingdon

[34] The three separate streams are by and large derived from a model of the U.S Federal political system in which the power is separated (Cairney & Zahariadis 2016).

1984). An organized anarchy characterizes complicated organizations with three properties: problematic preferences, unclear technology, and fluid participation (Cohen, March & Olsen 1972). Tanner argues that lawmaking in post-Mao China increasingly demonstrates these features, including unclear organizational goals, ambiguity in the decision-making institutions and process,[35] as well as relatively free-floating stream of policy alternatives (solutions), due to the emergence of think tanks, freer media and academia (Tanner 1999, 34). The other cases of MSF application in China's general public policy process either confirms Tanner's argument about the applicability of MSF or simply apply MSF (Paine 1992; Zhou & Feng 2014; Mu 2018). Xufeng Zhu, a scholar from Tsinghua University, didn't challenge the organized anarchy assumption; instead he questioned the appropriateness of the technical feasibility as one selection criterion of alternatives for the coupling process in authoritarian China (Zhu 2008).

Challenges of MSF Application to China: *Two Assumptions*

My research is built on the insights of Tanner and others who argue that MSF is suitable to analyze China's public policy making due to its features of organized anarchy. I argue, however, that there are two fundamental assumptions in MSF that are highly dependent on the institutional context of Federalist democracies and cannot travel directly across regime types. First is the assumed clear demarcation between predecision and decision process, with the latter marked by legislative voting or executive approval; the second and most important assumption is the near necessary condition of a worked out and ready alternative for successful coupling and decision agenda, i.e. when the decision is ready to be made (for a change of

[35] As in the ill-defined relationship between the formal legal system and the CCP, as well as in the three lawmaking arenas (the State Council, the Party Centre, and the National Peoples' Congress (Tanner 34).

policy), there must be a clear and familiar proposal in acceptable shape, often resulting from a long-term evolution in the policy community from the initial policy "primeval soup". These two assumptions can be explained in more detail below.

First, Kingdon focuses on the so-called "predecision process" and while his MSF suspends issues of decision making, he prescribes what counts as predecisions and real decision making. He makes the differentiation between different agendas, particularly between *governmental agenda* and *decision agenda,* both in the predecision process. And he asks us to pay attention to the different dynamics and processes leading to the rise of *government agenda* and *decision agenda*. According to Kingdon, a *governmental agenda* is "the list of subjects to which governmental officials and those around them are paying serious attention" (Kingdon 1984, 3). *The decision agenda*, on the other hand, is "the list of subjects within the governmental agenda that are up for an active decision." (Kingdon 4) Empirically, what counts as a decision agenda point for Kingdon? Kingdon claims that it is the moment that everybody knows because that is when the issue is "really getting hot" (Kingdon 166). According to Kingdon, the closest operationalization of the decision agenda occurs "when proposals are being moved into position for legislative enactment, for instance, or subjects are under review for an imminent decision by the president or a department secretary" (Kingdon 166). Between decision agenda and decision making, lies a process of bargaining and negotiations. For Kingdon, predecision and decisions are clearly separated processes. A lot happens before a proposal (or multiple proposals) moves into the formal decision processes.

Second, Kingdon parcels out the alternative as distinguished from agendas, and alternatives exist in a rather distinct domain with their own life processes. Thanks to Kingdon,

we now understand that agenda setting and alternative specification are separate processes, and the (independent) development of the alternatives in the policy stream affects the predecision and decision processes by its key roles in the coupling. Alternatives could be irrelevant to the initial governmental agenda setting, but their availability are essential to the decision agenda, because only if the proposals are coupled, is it possible for them to move up to the decision agenda. Before they are ready for coupling, the alternatives go through a process of evolution which make them better known to the public and policy community. Normally, before a subject can attain a solid position on a decision agenda, a viable alternative that nearly gains consensus, is available for decision makers to consider. "There also is generally a solution ready to go, already softened up, already worked out." (Kingdon 142).

An examination of issues of policy making in China suggests that these two underlying assumptions do not necessarily hold the ground in a communist-party state. In a party-led top-down policy process, the line between predecision and decision making is not as clear as MSF suggests, in both legislative and executive processes under the party's control. In the case of National Parks and Protected Areas reforms, for instance, both the decision to enact a nature reserve legislation in 2003 and the decision to establish a national park system in 2013 were made by the central government. And the top national international strategy One Belt One Road Initiatives shares similar ambiguity yet at a massively larger scale. As central government decisions, they are more formal than the *government agenda* which simply indicates the rising priorities in the government to-do-list because they already dictate an action in certain directions; yet they are neither a *full decision* nor a *decision agenda*, because there are no specific and elaborated proposals attached to the agenda that are ready to be vetted or

decided upon. In a coupling metaphor, they seem to be a coupling that is the joining together of a problem stream, a political stream and an empty or extremely vague alternative stream that moves into the pipeline for further action toward a restricted direction. In Kingdon's MSF, these agendas are likely to fade away.

To be sure, not all of these "empty agendas" are as ambiguous as they sound. Some of them have clear indications on what is to be expected in terms of final policy decisions due to the ways in which the issues are framed, explicitly or implicitly, in the agenda and the designated agencies delegated for further substantiating the decisions. And there are normal couplings in the sense of MSF in China's public policy making, in which policy entrepreneurs couple their pet proposals with political and problem streams and push the proposals to the formal decision-making channels. A well-known case of coupling can be found in Tanners' case of China's corporate bankruptcy law enactment, in which an identified policy entrepreneur kept pushing for his ideas of bankruptcy law as solutions to varied issues of China's economic reforms and at different venues (Tanner). However, in stark contrast, even Tanner's second case, the enterprise law enactment demonstrates a pattern that is different from the normal coupling but quite similar to what we find in the case of nature conservation reforms: the decision to enact enterprise law was accidentally and arbitrarily made by three of Deng Xiaoping's speechwriters through overnight brainstorming among themselves without much pre-existing proposals and policy discussions. Following that decision, a lengthy drafting process took place and stayed on and off the decision table over the years.

While this vague or empty agenda sounds quite similar to the famous policy-making style of "crossing the river by feeling the stones" (mo zhe shi tou guo he 摸着石头过河), and its

significance for gradual and trial-and-error style of policy making has been widely understood, there are underappreciated analytical spots of this overall process that can be revealed by our Modified MSF. And that is how the policy communities and political actors are involved in the process of the alternative specification and agenda setting. In the original MSF, free floating alternatives evolve from their raw shapes to ready ones, presumably through argumentation and persuasion without pressures and influence from the power, and primarily in the policy community (Kingdon 2011). In the reversed specification process of public policy making, however, policy communities are directly exposed to political influence: they are summoned by the political actors, who often are bureaucrats, and selectively invited to deliberation and consultation in the alternative formation. Their argumentations are to sway not only their peers, but also the decision makers who preside over the consultation process, during the same process. In this case, are they free to bring in their ideas? Who are invited to participate in this process? How do members of policy communities respond to the bureaucratic decision makers, and vice versa? How does an outside idea prevail in the face of entrenched political, bureaucratic and economic interest?

IV. *A MMSF* with expert community and the bureaucratic state actors interacting with each other at the core

Despite being the key word of the MSF, the "specificiation" of alternatives are not specified in detail in Kingdon's theory. Kingdon instead gives a list of criteria for the readiness of alternatives. In later developments in MSF literature, there has been some attention given to

the alternatives, specifically on their long-term evolution. Some argue that the development of alternatives does not need to be a slow or long-term process (Zahariadis & Allen, 1995). The development of alternatives differs in tempo (the speed of gestation) and modes, with the former being rapid or slow, and the latter referring to the trajectory of evolution being a pure mutation or marginal change from existing ideas (Durant and Diehl 1989, Zahariadis & Allen 1995; Zahariadis 2003). However, Zahariadis's work (2003) does not provide any case or evidence for the sudden mutation as one of the two by two categories (modes) of alternative specification that does not take any process of getting softened up before being accepted as a coupling choice.

The existing literature also notices that there are limitations on the incomplete process of public policy making in MSF, and as a remedy, some propose to bring decision making into the analytical framework of MSF, including either collapsing agenda and decisions together (Zahariadis 1992, 2003), or introducing another coupling process specifically for decision making (Herweg et al 2015) in order to maintain the operating structure and logic intact. However, both stress the essentiality of coupling (for agenda setting) and the readiness of alternatives for coupling. For instance, the justification for the collapsing together of decision agenda and decision making by Zahariadis is that both are part of the same process "by which policy-makers make an authoritative choice from a limited set of **previously generated alternative**s'" (Zahariadis 2003: 10, highlighted by the author).

As demonstrated above, the existing analytical framework of MSF is inadequately equipped to address the challenging questions found in China's public policy making. How do

we reconcile an MSF and the agenda setting that does not conform with its underlying assumptions?

First of all, while agreeing with Zahariadis about the collapsing together of predecision and decision processes in an MSF to deal with the problem of incompleteness of analysis, I suggest to also modify Kingdon's insistence on alternatives being ready as a precondition for selection for decision or decision agenda, thus allowing analysis of both regular alternatives softening up and the reversed specifying process following empty and vague decisions as observed in China's cases. While coupling seems to be at the center of MSF analysis (Beland & Howlett 2016; Spohr 2016), I suggest shifting our analytical focus to actual policy processes before and after that, with particular attention to the policy actors involved in the dynamic process. A modified framework of multiple streams would shed light on the hidden and undertheorized latter process, as well as how its dynamics in the latter process would affect the decision making in the former process.

This shift of focus allows structured interaction between the expert communities and bureaucratic decision makers to come to the forefront. Authoritarian regimes limit public input into the decision making even though they need inputs for both substantive policies and legitimacy concerns (Gandhi & Przeworski 2007; He & Warren 2011, 2017; Teets 2013; Jones 2019). Besides that, high technical complexity in many policy domains creates its own particular dynamics regarding scientific and technological information, which restricts access for general public but also empowers actors with expertise and technical privileges. Thus, it is important for us to have a grasp of who the involved political actors are in the policy-making process, and how the authoritarian regimes are related to their expert community in particular. For this,

MSF has a concept about a collected group of actors in which ideas get "specified" or "softened up."[36] According to Kingdon, "policy communities are composed of specialists in a given policy area (…) scattered both through and outside of government" (Kingdon , p. 117). Arguably, policy communities are composed of bureaucrats (civil servants), interest groups, academics, researchers, and consultants (Kingdon; Herweg 2016). Government officials are considered as interest groups as they lobby for their preferences; public interest groups such as environmental organizations are classified as interest groups as well. The two features of policy communities include that the requirement that they, first, are concerned with same policy issue, and second, communicate with each other on this policy issue.

My MMSF adapts the Kingdon's policy community to the state-corporatist technocratic model. Essentially the policy community consists of an expert community and bureaucratic decision makers. Kingdon's concept of policy communities is vague and confused with issue networks (Herweg, 2016). This is mostly due to the fact that he used it before the current common uses of both terms came to fashion. But it is also problematic **because Kingdon's model of policy formation is non-political**, i.e. he separates the idea formation from policy bargaining, using agenda setting as a demarcation mark. As a consequence, the concept is ambivalent. For instance, policy communities are responsible for proposal formation as opposed to agenda setting, yet political entrepreneurs, the special members of policy communities, are not only advocates of policy ideas during the specifying process, but also agents behind the coupling of separate streams for agenda setting. Despite these

[36] Origins of ideas are not important to Kingdon.

disadvantages, the concept of a policy community is still useful because it gives a good picture to the actors in the specification process, particularly academic, scientists, experts, interest group representatives and bureaucrats. However, they are in a flat, power neutral structure[37], and bureaucratic decision makers are not included in the picture for what they do as decision makers. Therefore, analytically, it is important to highlight a category of actors for governmental decision makers among the policy community members, because they are in a power position to interact with the rest of the policy communities, and can shape and be shaped by the ideas put forward by the other policy community members. Additionally, what sets of government officials come to the forefront of communication with the rest of the policy communities are by and large the product of events in the political stream and the bureaucratic rationales. To single out this set of players will make explicit an important analytical dimension that is missing in the MSF when applying to a party-state context.

With the actors of the community set in this way, how about alternatives specification in this framework? In MSF, policy entrepreneurs are key to the formation and survival of the alternatives. In our domains where the technical complexity and uncertainties are high, bureaucrats and experts interact to come up with technical solutions (i.e., technocracy). Both "coupling" and policy entrepreneurs are less important than in the original MSF. However, since our theoretical interest lies in when pure technocracy would prevail, we can check whether an epistemic community—a network of experts who can claim to be the most authoritative

[37] It is not that power and pressure do not matter for alternative specification or coupling. But Kingdon downplays this aspect in his discussion of ideas and policy communities. His members of policy communities have no fixed locations in and out of governments; and policy entrepreneurs are similarly distributed in the regime. "No single formal position or even informal place in the political system has a monopoly on them" (Kingdon 179).

scientists and issue experts in the domain—will change the dynamic of bureaucrat-expert interaction and impact the policy decision.[38] Our investigation of the state-corporatist technocracy will mostly revolve around the cases of epistemic community in relation to the general policy community, i.e.. experts and bureaucrats.

IV. Epistemic Community as the Idea Agency in MMSF

Epistemic Community in Environmental Governance: A Collective Idea Agency in MMSF

In modern governance, decision makers face growing uncertainties in issues with high technical challenges and complexity. The uncertainties include unclear causes and effects in the understanding of the issue, uncertainties about what the state's interests are in the issue, as well as the uncertainties involved in coming up with policy decisions that address the problem in the most suitable fashion (Haas 1992a; 1992b; 1992c). This challenge gives rise to the science and technology know-hows' critical roles in the decision-making process, because decision makers can turn to them for advice, or even delegate the decision-making authority to them, to solve the problems. In a global environmental governance characterized by technical uncertainties and complex issues, the existence of a knowledge-based network, the epistemic community, plays a critical role in reducing the uncertainties and facilitating decision making for international cooperation, such as with the agreement for the Montreal Protocol in banning ozone depleting Chlorofluorocarbons (CFCs) in 1987 (Haas 1992a; 1992c). It is also key for

[38] According to Kingdon, policy entrepreneurs are advocates for proposals or for the prominence of an idea (1992, 122). The defining characteristic of policy entrepreneurs is "their willingness to invest their resources—time, energy, reputation, and sometimes money—in the hope of a future return" (122).

decision makers to bring in the epistemic community to justify their decisions or take the blame for them if the decisions fail in the end.

As a category of political actors, an epistemic community is a network of professionals with recognized expertise and competence in a particular domain who hold an authoritative claim to policy relevant knowledge within that domain or issue-area (Haas 1992b). Epistemic communities in their originally discovered forms are transnational networks of knowledge-based communities (Haas 1992a 41), but it is applicable to domestic politics as well (Haas; Thomas 1997). As a distinct category of political actors, epistemic communities are not equivalent to professionals and scientists. There are four dimensions of shared traits for members of epistemic communities who are scientists and experts from different backgrounds and disciplines, including 1) a shared set of normative and principled beliefs; 2) a shared set of causal beliefs; 3) shared notions of validities; and 4) a common policy enterprise (Haas 1992b, 3). Measuring this concept against Kingdon's policy communities, we can tell that the epistemic community can be part of larger policy communities.

An epistemic community is distinct from other similar concepts of collective idea agencies in public policy theories. Policy network and policy communities are by definition interest-based group actors. Epistemic communities, on the other hand, are knowledge-based expert communities who share common convictions and causal beliefs (Haas 1992), and therefore not simply professional networks. While policy networks and policy communities are useful concepts, they are interest based and don't necessarily share a consensus based on common causal explanations. Advocacy coalitions resemble epistemic communities to a large degree, as their "members generally share a set of normative and causal beliefs" regarding a

particular policy area (Sabatier and Pelkey 1987, 248). However, they are still largely interest-based actor groups instead of knowledge-based.

An implicit dimension of Haas' concept of an epistemic community includes collective activism, meaning the community members more or less mobilize for their shared causes, taking actions in speaking out, advocating, lobbying, and campaigning in a networked fashion. Their actions, although varying greatly and if too intense might cause controversies over their scientific authority and supposed interest neutrality, can create a sense of certainty, making it more challenging for any measures to prevail against their policy alternatives.

The concept of the epistemic community contributes to the scholarly understanding of how ideas affect political decisions through learning and the construction of new meanings. There remains much to be learned, however, on how an epistemic community gets to be heard and taken seriously by decision makers. Haas emphasizes the crisis as a condition for epistemic community to exert influence. In a comparative context, the relationship between epistemic communities and the state/decision makers is undertheorized. For instance, in Craig Thomas' (1997) path-breaking study on the role of biodiversity, the epistemic community plays a key role in facilitating inter-agency cooperation in coming up with a state-wide agreement on biodiversity conservation in California. While discerning the impact of a conservation epistemic community, Thomas takes great efforts to document how the agency representatives' activeness in the negotiations for cooperation correlated to their agencies' level of existential crisis due to environmentalists' lawsuits against them based on the newly issued *Endangered Species Act*. According to his findings, those agency heads whose departments were not threatened by the litigations showed little to no interest in showing up at the meetings to

negotiate for the state-wide cooperation action agreement. As his case demonstrates, epistemic communities need platforms (and opportunities) to come up with consensual proposals and more importantly, need openings that created opportunities to motivate the decision makers to turn to experts for advice and inputs on policy formation.

An analysis of the epistemic community as the collective idea agency through a MMSF will fill this gap in understanding. The defining features of an epistemic community, as well as its entrepreneurship through mobilization, renders it not only a part of the policy community in Kingdon's MSF, but also a type of collective policy actor very similar to his policy entrepreneurs. Given their scientific authority, consensual theories and policy alternatives, and networked activism, it will be very interesting to see what kind of developments in the other two streams, particularly political stream, can enable their idea prevalence.

Essentially, MMSF allows us to observe how, in the authoritarian political context, the policy decisions are made when the three streams meet, and particularly reveal when the ideas of epistemic community along with other alternatives in the alternatives stream intercept with the problem stream as well as the events and developments in the political stream such as leadership turnovers, ideological shifts, administrative reform, etc. Specifically, when the problem stream remains flowing as a constant dimension, MMSF focuses on the interception of the political and the alternatives streams and brings to light how the political changes affect the interaction between the bureaucratic decision makers and the epistemic community, inhibiting or empowering the epistemic community in the process.

Biodiversity Conservation Epistemic Community: World and China

In environmental issues—the so-called the "paradigmatic case" of the epistemic community (Haas 1992a; Bernstein 2000, 466; Haas 2008), epistemic communities are comprised of ecologists who, despite coming from diverse and interdisciplinary backgrounds, often "share a common belief in the need for a holistic analysis that is sensitive to the possible feedback and synergistic relationships among a variety of variables" (Haas 1992a 43). For the issues of biological diversity with all of its foundational assumptions about interdependence of species, ecosystems and processes as well as the living human communities, the common belief for holism in the expert community cannot be stronger. Whether this is always sufficient to construct an epistemic community is debatable, but the most recent and prevailing conservation science, conservation biology, does have a strong normative commitment and a conscious sense of advocacy for the preservation of biodiversity (Barry & Oelschlaeger 1996; De Franco 2013). In addition to providing scientific knowledge to solve technical questions of policy formation—something positivist conservation scientists have argued as the appropriate role for applied biology in a value-free fashion—some conservation biologists claim that conservation biology is a value-latent, crisis discipline and therefore mission-oriented (Soule 1991; Wilson 1984,1992,1994,2017; Ehrenfeld 1995). According to Barry and Oelschlaeger, there is also a consensus of the epistemic community in conservation biology that distinguishes the discipline from the biologists who claim they "want to conserve x as a narrowly human resource" because it is at most an anthropocentric conservationism, or resourcism (907).

Despite the countervailing case of the United Nation Convention on Biological Diversity (CBD) not being the product of a consensus of scientific communities (Bernstein 2000), the negotiation and implementation of CBD, as well as the general conservation of biodiversity, just

as with nature conservation projects before, have to be carried out by conservation scientists and experts; and with the convergence of conservation science toward conservation biology, biodiversity conservation has been increasingly put in the hands of naturalists and experts influenced by the global conservation biology epistemic community.

The Rise of Epistemic Community in China

In China, the epistemic community is a less straightforward concept as the expert community lacks independence and has to answer to commands for justification of political decisions, in addition to the nascency of many science fields. Many think tanks and research institutes are also spread out by departmental divides and produce research based on their master ministries' interests (Halpern, 1988, 1992). While they do not necessarily lack independent expert knowledge and opinions, state-coordinated technology policies often drive them to seek funding or prestige-based opportunities. In a compartmented environment, scientists associated with State Forestry Administration (SFA), for instance, are primarily focused on the protection of wildlife and economic issues in nature reserves and pay little attention to theories of biodiversity conservation and cultural diversity. This is not only because the SFA was responsible for conservation of wildlife and took charge of the majority of nature reserves, but also because the biodiversity policy framework was traditionally the turf of the Ministry of Environmental Protection. To add even more complication to the picture, unlike elsewhere, Chinese NGOs generally disassociate themselves from an epistemic community role that often indicates the professionalization and maturity of a civil society (Hasmath & Hsu 2014; Hsu and Hasmath 2017).

However, there are signs of epistemic communities rising in different policy fields in China, such nature conservation and, in a strange way, Genetic Modified Organisms (GMOs). These are the policy fields where the issue definition, the causal relationship and policy solutions on the one hand, and national and public interest, on the other hand, are all highly contested and depend on scientific and expert opinions due to their complex and technically challenging nature. The epistemic community members are usually leading scientists and experts at top state-run research institutes and universities, often the directors. Some are local members from influential international organizations such as IUCN, WWF or Greenpeace. These elitist positions allow these experts to be consulted regularly in the policy process. They often have a strong international background in academic training or long-term collaboration, holding multiple titles and positions in international organizations even while serving in nationally important research posts. They are also in close contact with domestic NGOs and local governments as well as local practitioners.

The rise of a domestic epistemic community often results from extensive international and domestic collaboration in the policy field regarding both policy making and local practice. Chinese epistemic communities by and large owe their origins to international epistemic communities, even though in various fashions; for instance, anti-GMO advocacy in China constructed an image of a global anti-GMO epistemic community which is arguably non-existent, to derive legitimacy from and became a proxy epistemic community on its own (see Chapter 6). Despite these international origins, epistemic communities are increasingly localized in China, meaning their problem framing and policy prescriptions are generated on the

basis of expert understanding of the Chinese situation, and their representative members are Chinese experts.

My investigation of the Chinese protected area institution reforms reveals that there is an emerging epistemic community in the conservation policy domain. The ecological epistemic community is comprised of scientists and experts from diverse backgrounds, primarily in conservation ecology and biology such as zoology, but also from law and public administration, as well as natural resource management, development and landscape planning, and rural economy and development. This epistemic community was initially the offshoot of the international conservation community including International NGOs, Inter-governmental organizations and other international organizations engaging in conservation and development in China. One trend present in all of China's conservation policy scenes, is how the international members have quickly become marginal in the representation of the community while the local Chinese experts have become more established and vocal. The epistemic community believes that biodiversity should be protected, and ecological systems should be protected as a whole, and scientifically organized and regulated protected area system serves to best conserve natural and cultural heritage and diversity. Unlike the biodiversity staff scattered in the California's government (Thomas 2003), or the marine biologists who occupied bureaucratic decision-making positions as in Haas' *Mediterranean Pollution Control* (Haas 1989), China's conservation epistemic community does not engineer government learning by being decision makers themselves. They are most visible at the interface of the decision-making authority and in the expert policy community. Their power for persuasion, therefore, results from the assertation of consensual opinions and the mobilization of the expert communities

and special policy publics; however, their triumph also depends on the need for legitimacy from the decision-making bureaucrats in authoritative positions.

Conclusion

This chapter first presented China's conservation area reforms as a case of authoritarian state-corporatist technocracy in decision making. In looking at the puzzling triumph of a united protected area despite the bureaucratic-scientist alliances against this environmental norm at the core of the state-corporatist technocracy, this chapter set off to elaborate on a theoretical framework, the Modified Multiple Stream Framework, to explain a case of epistemic community success in overcoming the bureaucratic-scientist opposition inherent of the state-corporatist technocracy.

It identified two assumptions in Kingdon's MSF that do not suit an authoritarian political setting and relaxes a few constraints in his original framework. The MMSF instead focuses on a mixed process of alternative (policy) formation and the interactive process of bureaucratic decision makers and the expert community, particularly the epistemic community at the center.

In a fundamentally MSF fashion, this MMSF framework puts the dynamic interaction between bureaucratic states and the epistemic community in an analytical structure of the three flowing streams. And since the problem remains relatively constant in flow, as illustrated in chapter 1, what MMSF brings to the fore is the interception of the political and alternative streams. In particular it sheds light on how the developments in the political stream of the

authoritarian state affects the interaction of the bureaucratic decision makers and epistemic community.

Chapter 3 will build on this chapter's brief introduction of the conservation epistemic community and give a more detailed account of how this epistemic community has emerged from China's biodiversity conservation field.

CHAPTER THREE

THE RISE OF A BIODIVERSITY EPISTEMIC COMMUNITY IN CHINA

Introduction

In China, the scientific and expert community has gone through a sea change since meaningful conservation started in the 1980s. Both the size and quality of conservation professionals changed drastically, with trained experts and scientists growing in number and conservation-related science eventually converging toward conservation biology. This community's relationships to the decision makers and to each other also have gone through changes in different phases. This community has become increasingly important for management and conservation decision-makings. And a densely networked conservation community emerged at the top.

Early on and to a large degree still the case in the present, conservation experts were divided and separated by ministries and captured by departmental interest and their assigned research tasks. With China's fast economic development and increasing pressure for addressing environmental degradation, the Chinese state's reliance on experts for policy consultation has grown exponentially, especially for the top-level experts in conservation-related fields who are fully immersed in practice, internationally exposed, and domestically well connected.

In this chapter, I argue that four dynamics in China's governance of conservation significantly contribute to its increasing demands for top conservation experts and have led to the emergence of a latent network of conservation experts. The special features include, first, the return of planning as a central policy instrument, with a heavy focus on environmental governance; second, expansive international collaboration on the environmental fronts; third, an international conservation designation fervor; and fourth, the development of tourism and nature-themed service industry.

I argue that a conservation epistemic community arose from this loosely formed expert community. With the creation and operation of a powerful organizational platform, a long-term institutionalized cooperation between the international epistemic community and domestic experts, and a focal point provided by the state to conduct an institutional overhaul of the conservation administrative system, a domestic ecological epistemic community emerged who not only formulated a consensual framework of issues of and solutions for conservation institutions, but also started to advocate its policy proposals relentlessly.

In this chapter, I first present a brief introduction of the historical development of China's conservation professionals in terms of numbers and education, and with a close look at the central government's plan to cultivate professionals who are competent for national policy advising. The following section presents the four factors in increasing the demands for top-level experts. Section three is devoted to a description of demographic traits of China's latent conservation expert community. The last section provides further information on the characteristic features of China's protected area epistemic community and introduces the

organizational platform that helped to foster and launch this epistemic community at the start of the conservation area reform.

I. The Growth of China's Conservation Expert Community

Divided fields, limited number

In China, environmental science research took off late, with meaningful science research projects only starting at the beginning of the 1970s (CCICED 1993). The sector grew exponentially in the 1980s. In 1990, there were nearly 200,000 people engaged in environmental science research and technology development. Environmental specialists were trained through seventy-nine different universities (or colleges) offering fifteen types of majors related to environmental protection, ecology and biology. There were 107 departments of universities or other institutions which offered master's programs in twenty-one fields related to environmental protection; and thirty-eight departments or institutions which granted Ph.D's in fourteen related fields. Together these institutions produced 20,000 graduates at all levels (CCICED 2008). The majority of these graduates specialized in the field of pollution prevention and treatment. Given the vast area of China coupled with the minor role of ecological conservation in the overall environmental protection sector[39], the number of experts and scientists who were well trained and familiar with conservation practice in China was certainly

[39] This lack of attention to conservation is indicated by the lack of substantive provision on ecological conservation in the Environmental Protection Law enacted in 1989 and in the most recent revision in 2014.

very limited, when nature and biodiversity conservation through protected areas experienced a boom. [40]

Additional to the extreme lack of conservation biologists, environmental science research at that time, biodiversity included, was also characterized by departmental division and a lack of information exchange or coordination (CCICED 2008). Each ministry held onto its own areas, with no clear division of labor in the overall field.

The 1990s onwards

As the conservation sector has gone through further growth since the 1990s, the professional pools have greatly improved, due both to the continuedly improved education and training system on the supply side, and the increased requests for scientific and management expertise for ecological conservation and sustainable development, on the demand side. Moreover, the international cooperation has increased exponentially and created both the demand for local scientists and professionals as well as the opportunities for cooperation and training under international management.

According to a survey in 2014, there were about 200 universities who offered environmental science related majors, three times higher in number compared to 1990. Yet the quality of the training is still problematic, as shown in the gap between the dire need for wildlife protection professionals and the mere thirty percent of college graduates majoring in

[40] The number of professionals in ecological conservation in China is not available.

wildlife protection and nature reserve administration who actually took on jobs in related fields (Cao et al 2014)[41].

There are hardly any ready statistics on the overall number and distribution of the personnel in China's environmental sector, to say nothing of nature conservation more broadly. An extremely rare national government document reported that out of the 6.85 million people working in the ecological and environmental protection field in 2007, 23% held a bachelor's degree or above, and more than 10% of them were considered to be *professional and technical talents* (专业技术人员), at around 163,000 (MEP 2010).[42] In the *Medium to Long Term Plan for Developing Talents in Ecological and Environmental Protection*, the state aimed to raise the number of *professional and technical talents* to 320,000 in 2020. It also planned to increase the number of *talents in research and development* （科研人才）, a category of talents at one level above, from 43,000 in 2007 to 58,000 in 2015, and 74,000 in 2020, with 5 percent *high-level innovative research and development experts in Ecological and Environmental Protection* （高层次创新型生态环境保护科研人才）, representing the most prestigious talents at the top (MEP 2010).

The *Medium to Long Term Plan for Developing Talents in Ecological and Environmental Protection*, a comprehensive planning document, was the product of an unprecedented inter-ministerial endeavor led by the Ministry of Environmental Protection (MEP) with other central

[41] The root cause was the lack of appropriate course design and training, according to the conservationist and survey director, Professor Lei Guangchun at the School of Nature Reserve Administration in Beijing Forestry University. Lei and others were assigned to draft a national standard on undergraduate courses in nature conservation and environment and ecological protection majors. Xinhua News Network 2014.
[42] This number excludes the university and institutes. See MEP 2011.

ministries involved in environmental protection (MEP 2011). It catered to the drive from the administration under then President Hu, Jintao and premier Wen, Jiabao (2002-2012) to pursue development with a "Scientific Outlook" and "Harmonious Society" including a harmonious relationship between humans and nature. Specifically, it offered a blueprint for the implementation of a central government plan to cultivate scientific talents in the medium to long term (Xinhua June 6, 2010). As shown above, it took an inventory of professional talents across departmental divides and made plans for the cultivation of qualified professionals and talents to meet the nation's anticipated needs in ecological and environmental protection over the following five to ten years starting in 2010.

In such a historical policy document, in addition to the usual technical rankings for professional hierarchy, it includes a specific provision on a novel category among the general talents in research and development, *science and technology talents for macro decision-making advising* (宏观决策咨询科研人才). In order to "adapt to the newly transformed functions of departments related to environmental protection and meet their needs in taking part in macro-level decision making", the state, as the document notes, must cultivate *science and technology talents for macro decision-making advisory purposes* at the highest level. This group of talents refers to those experts who understand conservation and environmental science on the one hand, and are familiar with "macro-economic management", meaning expertise in law and regulation, planning, technical standards, and Environmental Impact Assessment, etc., on the

other hand. (MEP 2010, 9). The stated goal was to enlarge the talent pool for macro decision-making advising to 2,000 at the national level in 2015, and 5,000 in 2020 (MEP 2011, 10). [43]

Table 4.1: Numbers of Professionals in 2007, 2015 and 2020 in the Environmental Protection and Ecological Conservation Field*

Ranking relationship	Categories of Talents	2007	2015 (plan)	2020 (plan)
	professional and technical talents （专业技术人员）	163，000		320，000
	talents in research and development （科研人才）	43，000	58，000	74，000
	high-level research and development experts (national level) （高层次创新型生态环境保护科研人才）	2,150**	2,900**	3,700**

[43] It is unclear whether the government has achieved its planned goals. There was a mid-term evaluation of this plan conducted by MEP. However, there is no official statement about the evaluation of results. Given the coordinated nature of the planning from the very top and the continued growth in scientific research and development investment in China, it is not unreasonable to expect it produces planned policy outputs. China exceeded Germany the second largest GDP spending on R&D in the world in 2008 and remains number two (CSIS https://chinapower.csis.org/china-research-and-development-rnd/?lang=zh-hans).

	science and technology talents for macro decision-making advising (宏观决策咨询科研人才)	1，500-2，000 ***	2，000	5，000

*compiled from the MEP 2011 planning document.

**estimated according to the percentage

***author's estimate

There are no further breakdowns of the number of professional and technical talents according to their professional fields.[44] Nevertheless, we can make a rough estimate of the status and outlook of conservation professionals and talents according to the structure of the central government's financial expenditures on conservation and environmental protection, which has been relatively stable since 2007 when the national statistics became available for the environmental protection (changed to the category of Energy Efficiency and Environmental Protection in 2011) (Xu et al, 2018).[45] According to the numbers from Xu et al, nature conservation accounts for about 37% of the financial expenditures in the environmental field.[46]

[44] There are breakdowns according to their functions, however, such as research, education, monitoring and inspection, etc.

[45] The central government financial expense including three main categories. Its expenditure on ecological conservation and construction was averaged at RMB 93.3 billion Yuan during the five years between 2012-2016, while pollution prevention and treatment costed 77.3 Billion, and renewable energy and energy efficiency programs costed 76.9 Billion (Xu et al, 2018).

[46] This number is lower than the actual central government expenses on ecological conservation, because it leaves out a massive service payment program that took off in 2008 in national scale. This payment program transfers money from central government to designated Key Point Ecological Function Zones (zhongdian shengtai gongnengqu 重点生态功能区) .Xu et al left this out in their assessment since no verifiable number from local

In proportion, among the talents for macro-level advising, for instance, the number of conservation scientists and experts should range from 5-6,00 in 2007, 700 in 2015, to 1,500 in 2020.

What do these numbers tell us? Why does the central state put up official policies and strategies in cultivating high-level science and technology talents for macro decision-making advising? I argue that the state investment in policy-advising scientists and experts reflects first and foremost the increasing pressure for it to address ecological degradation and biodiversity loss and consequently the need to integrate conservation with its economic and social development policy making. This general trend has been drastically augmented by a few factors unique to China's development path. The increasing demands for high-level expert consultation are multifaceted as China continues to move down a fast growth path.

The following section introduces and elaborates on four key factors that contribute to the high demands for expert consultation in conservation field.

II. Increasing Demands for Expert Consultation

The popularity of experts in China's conservation sector is phenomenal, at least during the Xi Jinping era. When it comes to countless forums, symposiums, semi-closed-door consultative meetings, and joint press meetings by various governmental agencies with

governments can be found on how much of the transferred payment was really spent on the ecological construction (Xe et al, 2018). The eco service payment is to compensate the critical eco zones for their sacrifice in reducing future economic development at the environmental cost. The transfer aims to cover the administrative cost of the local government.

conservation experts that I witnessed in Beijing in 2016, for example, it was not much unlike similar activities in Washington DC. The air was filled with excitement, confusion, and anxiety. And the flocks of experts moved in fluidity, as they were needed everywhere. When I was attending a national park forum in a local provincial site in September 2016, there were two other high-level symposiums on same topics to be held at almost same time, at locations in a few hundred and a few thousand kilometers away respectively. Many high-profile experts from the same group managed to show up at all locations. And this is nothing unusual to them. China's environmental experts leave huge carbon footprints behind them.

Combating biodiversity loss in the context of China's continuedly growing infrastructure, expanding urbanization, and the pursuit of sustainable development with a harmonious relationship with nature (Hu & Wen era) and subsequently an "ecological civilization" under Xi Jinping, fundamentally contributes to the increasingly high demands and short supplies of competent high-level experts in the conservation sector. However, there are a few dynamics unique to China's conservation governance that drastically intensifies this trend. First and foremost is a regenerated national planning system that puts heavy-handed pressure on environmental protection (Heilmann & Melton 2013).

Increasing Demands: Return of Planning at the Central and Local Levels

Contrary to the common perception of China being "growing out of plan" since Deng Xiaoping's era (Naughton, 1995), central planning has come back since the 1990s and particularly the 2000s with Hu and Wen assuming the national leadership. Unlike the notorious

command-economy planning in Mao's era, planning now has evolved into a key policy instrument for economic development and public policy coordination and oversight system (Heilmann & Melton 2013).

Beyond the prominent national *Five-year plans*, there are *comprehensive planning* (总体规划), *special planning* (专项规划) and *macro-region planning* (区域规划). Each plan at the national level will be replicated and divided into multiple plans at the local levels. During the 11th *Five-Year* Plan, there were roughly 160 national *special plans*, and as well as dozens issued by every provincial and county government. For both *comprehensive plans* and *macro-regional plans*, ecological conservation and zoning have become a necessary and increasingly major component of the system. And some *special plans* directly target environmental issues, including nature conservation. Recently implemented, biodiversity-related planning policies include the *Ecological Redlines*, *Agricultural Land Redlines*, and *Main Ecological Function Zone*, to just name a few. Nationwide, major programs such as the *Natural Forest Protection Program* and the *Cropland/Rangeland/Slopeland Conversion to Forest/Grassland Programs* all require the attention of governments when making social and economic development planning. Planning, planning for implementing plans, and assessment and reviewing of the plans all require the participation of high-level experts who understand the science and arts of conservation.

Besides the planning from the government side, planning looms large within the conservation system. All higher-level conservation area units are required to conduct a number of specific planning measures on the regular basis. And any special designation requires a plan,

with often-multiple designations in the same conservation location. The burdens of planning are high, with increasingly more detailed and up-to-date technical standards for planning. For instance, the National Scenic Areas are required to compile and issue their development plans covering all aspects of issues regarding the scenic areas up to 20 years, and the scenic area administration also must make short-term and medium-long term plans respectively, under the 20 years comprehensive plans. These plans cannot be made in isolation from the governmental planning. The gist is that the overall plan of the scenic area needs to coordinate with the national economic, social and development planning, the main functional zone planning, the urban planning and overall planning of the land utilization, etc. (MOHURD 2019).

This re-emergence of planning has been accompanied by a broader change to China's national planning culture. Starting in the 1990s, the planning process has become more inclusive and consultative, engaging both domestic and foreign stakeholders and experts. For instance, the drafting of the 11th *Five-Year plan* was characterized by its consultation with not only the ministries but also multiple domestic think tanks and foreign experts from the *World Bank* and *Asian Development Bank* (Heilmann & Melton). The drafting process, however, remains relatively insulated from sectoral, regional and bureaucratic vested interest and this leads some experts to even characterize this policy-making process as the "embedded autonomy" of the state (Evans 1995). Nevertheless, the demands of central planners for top experts are intensified as a result of increasing central technical planning and the changed planning culture.

Another consequence of this renewed planning practice is its local ramifications: the national fervors for planning not only are replicated at the local levels, but also intensify the

demands for top national experts at the local level. As observed by Heilmann and Melton in general and confirmed by my field research, an increasing trend of planning is that local governments now often invite experts associated with the central government planning to facilitate their local planning, partly in order to make their plans more consistent with the intention of the central government but also to curry favor from them because of their roles in the decision making.

In the case of the conservation area reform, the central role of planners under the State Council, particularly the so-called "mini State Council"—the National Development and Reform Commission (NDRC)—made it possible for them to empower the epistemic community when the reform was taken into their hands. In Chapter Five, I will look into this in more detail and demonstrate, first, how the incentive structure of the top planners and their implementers enable them to respond to the contestation in the conservation reform in different ways from previous reformers; secondly, their central role in the decision making process empowers some planning experts in Beijing and from local areas such as Yunnan, who are key members of the epistemic community.

Meanwhile, continued international cooperation through a large variety of venues also demands the best of the conservationist and policy experts in China.

Increasing Demands: International Cooperation and Collaboration

The increasing demands for high-level expert consultation are multifaceted as China continues to move down a fast growth path. Another source for the increasing demands for concentrated top experts' pools comes from China's joining of international environmental

treaties and organizations. Since the 1970s China has joined at least 50 international environmental treaties, with some of the earliest ones already concerning nature conservation. International organizations have also pumped large amounts of money into China's conservation sector. The international influence on China's conservation cannot be underestimated, given that in the 1980s, seventy percent of the funding for the then National Environmental Protection Agency (NEPA) came from the international assistance.

Treaty compliance activities requires the cooperation of some of the best Chinese conservationist and policy experts. The United Nations Environment Programme (UNEP)'s anti-desertification programs, wetland programs and EU's biodiversity programs, for instance, all require local scientists and experts to work with them. The survey and compilation of China's endangered species, ***China Species Red List*** (MEE 2010), or the ***Green List*** of Nature Reserves in China (Shidi China, 2019), for instance, are all the products of international organizations working in tandem with China's top conservation experts.

Increasingly, international NGOs rely on Chinese talents to serve as their program leaders and consultants, given their often all Chinese staff profiles and challenging operations in China. For instance, the key member of the epistemic community, Dr. Xie Yan, zoologist at CAS, was the China director of the Wildlife Conservation Society (WCS) from 2005 to 2011. She is currently the executive committee member of IUCN SSC, formerly the Deputy Director of East Asia WCPA (IUCN), Technical Direction Committee Member of the Global GAP Analysis Program, and an Expert Consultant of Global Environment Facility (GEF).

Increasing Demands: Fervor for International Designations

Local replication of planning consultation for policy making at the macro level is not the only reason for local's preference for top-level experts for consultation, however. There are at least two other dynamics that contribute to the surge of demands for national conservation experts from the local governments and agencies, most involving their expertise in special title designations in conservation fields and their authoritative status in the evaluating and approving programs for these designating activities, as illustrated in the following points.

There are no systemic records of increasing international programs designations in conservation-related fields, but it has been a booming industry to establish the internationally recognized conservation areas in China. The approved titles incur high-level reputations, great tourist attractions, flexible regulations regarding tourism business development, tangible political achievements and funding from both international sources and increasingly the Chinese government. As a result, the local governments and ministries have been passionate about applying for the international designations over the recent decades.

To put it in perspective, there are 32 *Man and Biosphere Protected Areas* under Man and Biosphere (MAB) program in China by 2015 (Chinese National Committee for Man and the Biosphere Program, UNESCO, 2015); by July 2019, there are 55 World Heritage Sites, including 14 World Natural Heritage Sites, 37 World Cultural Heritage Sites, 4 sites of World Natural and Cultural (DUAL) Heritages, and one international World Heritage site under UNESCO in China (UNESCO. 2020) There are also currently at least 50 potential sites across China that expressed interest in applying for the heritage status with UNESCO. China is ranked number one for the most World Heritage sites, on par with Italy. Similarly, China is ranked number one in the world for the highest number of the World Intangible Cultural Heritage items under UNESCO in 2018.

Since 2005, China has successfully organized the 15 localities to apply to the United Nations Food and Agriculture Organization (FAO) for the Globally Important Agricultural Heritage Systems (GIAHS) (FAO， 2020). China is again ranked number one in the world for GIAHS sites. Similarly pursued international designations also include World Geoparks (UNESCO) and Wetlands of International Importance (RAMSAR). It is not clear whether the well-intended certifying organizations such as UNESCO or FAO have realized the burdens the applying process have put on the local budget and expertise. A news report in 2013 estimates that China spent averagely 0.3 billion RMB, approximately 43 million US dollars on the Heritage designation applications annually. For each successful Heritage site, the cost would be above 100 and 200 million RMB (15-30 million US dollars), at least. One county in Hunan Province spent 400 million RMB (about 60 million US dollars) on the Heritage application over a four-year period, while its revenue was only 200 million in 2008. World Nature Heritage is the most expensive category for applying expenses (Liberation Daily August 28, 2013). One extravagant case was the application for China Danxia World Natural Heritage that comprises of 6 Danxia Landforms sites in different geographic locations in China. It costs the local governments over 1 billion RMB, approximately 200 million US dollars over the four-year application process (China News, September 25, 2010).

One important aspect of these designations is that they are an expert-centered as it requires conservation-related expertise as well as familiarity with specific institutional rules and practices of the designating international organizations. The applicant governments not only hire expert teams from prestigious institutes to do the surveying and planning, but also regularly host field research trips and evaluation conferences for top experts, often up to 100 in

participant number for multiple times throughout the application period. According to one estimate, a small 4% of application costs goes to expert consultation. However, given the ongoing national fervor (with 50 sites lined up for Heritage application), high intensity and small pool of experts, it keeps the elite experts busy. With the steep costs, high stakes and short time horizons on the initiating side, the government in charge would only want to hire the most qualified experts for their facilitation of the process.

Increasing Demands: Domestic Designation and Conservation Upgrading

Domestic demands for top-level experts partly come from the national fervor for title designations as well, in a way echoing the international title frenzy. Through the creation a category of titles, the Chinese government has developed a policy instrument to achieve its public policy goals in conservation and development. Those titles can set technical standards, bring political prestige, attract tourists and grow the GDP. Titles include, to name just a few, National Agricultural Heritage, National Geographic Landmark Products, National Intangible Cultural Heritage, etc., the standard setting, application, approval and overseeing of which all involve specialty experts at the national level. Given the political and commercial values of these titles to the local stake holders—primarily the government—these titles are hotly pursued.

More directly related to the protected areas affairs is the creation of conservation areas and designation of higher-level protected area status. For instance, the establishment of national nature reserves requires the updating of provincial level nature reserves that have existed for 3 to 5 years. And the application and approval processes are highly technical, often

beyond the local experts' capacity. More generally, the setting up of key conservation units, such as geoparks, wetland parks, forest parks under and aside from the more tightly regulated conservation category such as nature reserves, is popular among ministries and local government as the new titles allow more tourism and higher prestige. Setting up such conservation units requires expertise and connections that locals lack.

At a more comprehensive administration level, the central government has created many categories and honor titles as an incentive system for local governments to pursue ecological-friendly developments. The examples include Green Cities, Ecologically Civilized Cities, Pilot Demonstration Area of Ecological Civilization, etc. The application of these titles requires top-level expertise for help and support, if not endorsement.

As mentioned before, there is a unique dynamic involving top conservation experts regarding these trends. Namely, the high demands from all levels and across disciplines for the limited number of the top experts. These experts are familiar with the technical standards, the intentions of the decision makers, and most of time, are themselves the members of the evaluating committees at the central level.

Increasing Demands: Ecotourism and Nature-themed Service Industry

Eco and nature-based tourism has become a major driver for local economies in many areas, especially those of high biodiversity values but low development status. China has introduced the concept of ecotourism but not its internationally accepted certifying programs (Zhong et al 2017). Instead, it follows many different standards and regulations. In order to

qualify as ecotourism sites, the local governments are willing to spend money to hire top experts from Beijing and top institutes in other locales.

The consequences of these dynamics include first and foremost the creation of a pool of experts who are repeatedly tapped for consultations at the international, national, local and departmental levels; given the roughly 1,000 qualified experts at the national level across the country for the broad conservation field, and a preference for top experts who work closely with the administration in Beijing, the top experts get to participate in an overwhelming number of meetings and consultative projects that both reinforce their authorities and break down the organizational divide among each other. They eventually develop dense networks based on expertise and trust built up over their long-term collaboration and mutual support. This has helped to overcome the initial institutional divide among the conservation experts and created the basis for the consolidation of an epistemic community.

III. A latent expert community and the Epistemic Community in biodiversity conservation

As the demands for expert consultation keep increasing, there has emerged a network of experts and scientists in the conservation field, in a sense serving the functions of the government titled "*science and technology talents for macro decision-making advising*" desired and demanded by the state. They are generally professors and research fellows in universities, government-associated research institutes, think tanks (mostly official think tanks), often

serving as chief scientists, lead researchers or directors of the research institutes and departments. Very few hold senior bureaucratic positions within the government. They are heavily tapped by the state for policy advice and consultation. These experts form the core of the policy community at the national level.

These elitist domestic biodiversity conservation experts almost all hold PHD degrees from prestigious universities and institutes, primarily within China but occasionally (and increasingly, especially for youngest generations) from overseas institutes, including from Europe, Southeast and East Asia, and North America. It is common to see an overseas post-doc title and visiting scholar experience at top overseas institutes in their CVs.

A glance of the organizational affiliations of these knowledge community members reveals the following features:

Many leading universities with top experts in relevant programs are located in Beijing and this gives convenience for their expertise to be tapped for national policy consultation. The top programs include those in the most prestigious—Beijing University and Tsinghua University—but also other top universities such as Renmin University and Beijing Normal University, and universities in specialized fields under line ministries such as Beijing Forestry University, Agricultural University of China, China's University of Political Science and Law, Beijing Space and Aeronautic University, Minzu University of China, etc. Beijing Forestry University hosts the College of Nature Reserves, while Tsinghua University seats the prestigious School of Architecture which hosts the department of Landscape Architecture. Due to Ministry of Housing and Urban-Rural Development (MOHURD)'s jurisdiction over the major conservation

system, the Scenic Areas, institutes specialized in landscape architecture are in charge of designing and planning for many conservation areas, not limited to the Scenic Areas.

Some local universities and research institutes are tapped for (regional) expertise either because of their renown programs and/or due to their affiliation with line agencies. For legal scholarship, in addition to the Chinese University of Political Science and Law in Beijing, Wuhan University and Hubei College of Economics are also frequently tapped for their environmental legal research expertise. Ocean University of China in the coastal city Qingdao, for instance, is the top university in the marine science field under the State Oceanic Agency. Occasionally, individuals are tapped because of their established reputation or personal network, often derived from their previous jobs as high-ranked bureaucrats or top scientists, not necessarily associated with any established programs. Some legal scholars from Tianjin University and Shanghai Transportation and Communication University are frequently consulted.

Research institutes are also on the list, with the Chinese Academy of Science (CAS) at the top. The CAS is the crown jewel of China's natural science research. It owns many specialized institutes, including the Institute of Zoology, Institute of Botany, Center for Environmental Resources and Strategy Research, among others. Most think-tank style research institutes are associated with the government departments. For instance, the Research Center of Development serves the State Council, while the China Institute of Environmental Science and the Nanjing Institute of Environmental Protection serve the MEP. The SFA has its own research institutes; and on protected area issue, its top experts come from the Kunming Institute of Survey and Design, one of the SFA's five survey and design institutes. The Ministry of Agriculture (MOA) also hosts experts in its Institute of Agricultural Science.

In addition, almost every ministry (and their local agencies) sets in-house research offices or centers to cater to their immediate policy needs including drafting policies, releasing information, and initiating policy research (Zhu 2009). For instance, the State Council has the Research Office of the State Council, in addition to its affiliated Research Center for Development.

While experts from these institutes are mostly highly accomplished academics or prominent program/project directors, they are invited to the consultation or decision-making table often in representation of their institutions and line agencies. Often also appearing at the policy consultation tables are representatives of international organizations. Conservation experts from international organizations (IOs), inter-governmental organizations (IGOs), and international NGOs (INGOs) are a constant presence at the consultation scene, due to their long-term collaboration with China. The WWF, TNC, CI, WB, UNEP, IUCN etc. all have worked in China for a long time and their representatives are known to the policy community members as well.

In addition to their major organizational affiliations, these experts usually wear multiple hats, sitting in leadership positions in national academic committees, advisory committees, expert review committees of major projects applications, planning, construction and evaluation, committees of professional qualification certification, committees of professional associations, NGOs, etc. Generally speaking, the more hats they wear, the more authority and therefore popularity they bear in the consultation affairs.

These experts almost unanimously have experience in working for multiple major internationally sponsored programs as chief scientists, consultants, directors, or coordinators. Increasingly, the local representatives of the INGOs, IOs and IGOs are either Chinese citizens or ethnic Chinese. The group of experts basically rotate among these positions. The current director of WWF China, for example, was the former director of Greenpeace Beijing Office. And some of them created their own non-governmental organizations in the middle of their careers. For instance, Dr. Xie Yan, the Zoologist and leading conservationist who advocated for a national PA system, started graduate studies at CAS and became the program coordinator for the biodiversity research program under China Council of International Cooperation and Environmental Development (CCICED), a hybrid organization of INGO and GONGO, when she was pursuing a PHD degree under China's most renown zoologist Wang, Song, while Prof. Wang was the director of that CCICED biodiversity program at the time. In 2013 she initiated a research-based network, Protected Areas legislative Small Group, and eventually started her own organization, Global Protected Area Friendship System (GPAFS) as a protected area focused NGO[47]. Zoologist and Professor Lv Zhi from Beijing University, an expert specialized in Giant Pandas, shares similar experience and also started a conservation NGO, Shanshui Conservation Center. Professor Lv was involved in China program of Smithsonian Institute, NOAHS, and was the leading figure of WWF China wildlife conservation program and founding director of Conservation International (CI)'s China program.

Unlike in Hass' Mediterranean Act where scientists took the bureaucratic decision-making positions, in China's conservation field this has mostly not been the case, even within

[47] For information see Baohudi.org.

the most exceptional cases in the former Ministry of Environmental Protection and State Forestry Administration where technocrats tend to dominate. With conservation and protected areas being promoted to the national priority, and particularly with the concentration of the administrative and regulatory power to the newly created Ministry of Natural Resources, however, we started to witness the migration of top experts from research to the bureaucratic leadership positions. For instance, two experts in Forestry Survey and Planning related to national parks and protected areas were recently appointed as the deputy directors of the Office of the National Park Services, newly created in 2018.

The Biodiversity Epistemic Community

While this dense network breaks down the departmental divides characteristic of China's conservation policy community, they are just the basis of an epistemic community, not equivalent to one. The idea of creating a unified protected area system was cast aside and not considered seriously as viable or necessary by the members of the expert community until it was proposed, advocated, and upheld by a few prominent conservation experts. In a way, the existing administrative divide in the conservation sector was deemed unchangeable and made the thoughts of a unified protected areas unrealistic; in Kingdon's language, it does not meet the technical feasibility criterion for the survival of alternatives (Kingdon). In my interviews of conservation experts, some expressed deep doubts about ideas of national parks or protected areas even after the national park and protected area reform were formally announced.

The conservation epistemic community arose in China and evolved to contest and influence the state decision making as the reform of the conservation system unfolded. The epistemic community is represented by a dozen or so outspoken conservation scientists, landscape planning experts, legal and administrative scholars, and international organizational staff, particularly the representatives from IUCN. These experts all believe that biodiversity should be protected, and a unified protected area system consistent with the IUCN standards is the best way for conservation in China.

In addition to the general traits of the expert community described above, the members of the epistemic community share some additional commonalities, and that is, the issue framework of protected areas was decisively important to the formative years of their careers, either during their doctorate training or as junior scholars working on the topic. And they remain dedicated to the issue throughout their careers. Some of them embraced the IUCN protected area ideas from the start of their careers, others worked out their stances after being involved in local experiments on national parks systems. Their key expertise background ranges from conservation biology (zoology and botany) to landscape planning, and even directly protected areas and national parks.[48]

[48] Dr. Xie Yan at CAS was personally in charge of the coordinating the drafting of the most important research report on protected areas during her graduate training years. Dr. Zhu Chunquan was the representative of IUCN in China, fully immersed in China's policy field in protected areas. Dr. Yang Rui at Tsinghua University wrote his award-winning PhD dissertation, allegedly the first Ph.D. dissertation on national parks and protected areas in China and was involved in creating the first national park site in Yunnan province. Dr. Tang Fanglin and Dr Tang Xiaoping both wrote their Ph.D. dissertations on national parks during their mid-career time, while in charge of policy development and planning for the local national parks under the SFA. Dr. Su Yang at the DRC of State Council got involved as a natural resource management expert and embraced protected areas ideals out of criticism of the current institutions and practices. This trait is less prominent with the few legal scholars in the community, but conservation area legislation still features big in their career tracks. For example, Professor Du Qun at Beijing University of Aviation and Arnaut was involved in the reform from earlier time and her expertise revolves around nature conservation while she serves many important international environmental organizations.

Another demographic trait of the epistemic community is that they are not the most senior and authoritative figures in the conservation field in a Chinese official hierarchy. In China's academic institutions, Academicians of the Chinese Academy of Sciences and Chinese Institute of Engineering are the highest authorities in the field. None of the epistemic community members are Academicians. For one thing, the epistemic community members are mostly from the post-60s generation and are significantly younger than the current Academicians. This could also mean, however, that they are more exposed to and connected with international communities during their formative years than their established academic supervisors and mentors, and their long-term immersion in the conservation field renders them as no less authoritative when it comes down to the domestic institutions and practices. The Academicians were only indirectly involved in the policy consultation process. Some Academicians signed the petitions to support the Xie Yan's protected area legislative bills during the mobilization in 2012 and 2013.

In the early period of the conservation system reform, particularly during the battles over the conservation legislation from 2004-2013, the epistemic community was primarily represented by conservationists in coalitions with legal experts in environmental law. Dr. Xie Yan in the CAS rose to the prominence in the field for her fierce advocacy of protected area legislation. When she entered the epicenter of the reform, however, she was just a junior scholar, barely finishing her PHD study at CAS. How could she and the ideas she championed carry such heavy weight in the rivaling bureaucratic establishment? I argue that her rise was the result of the close collaboration of the international biodiversity epistemic community and top

national research institute; her opinions represented a strong consensus formed by a long-term research team of top experts from both sides.

The following section is devoted to sketching out the obscured history of an important organizational platform that fostered the consensus underlying China's rising conservation epistemic community.

IV. Consensus Formation: The International and Organizational Incubation of a Conservation Epistemic Community

The rise of a conservation epistemic community in China is not highly surprising upon knowing the general trend of a developing networks of experts as detailed in above sections. However, its emergence was not possible without an organizational foundation that not only fostered the consensus on the institutional deficiency of China's conservation sector, but also provided the political clout and institutional channels for the launch of an epistemic community and its policy interventions.

Students of China's environmental politics—and civil society politics in general—often look at civil society organizations such as NGOs, Government-Organized NGOs (GONGOs), and occasional International NGOs (INGOs) in search of dynamic sources of environmentalism. I argue that some hybrid form of organizations has played important roles that are less known and underappreciated. In the following section I introduce a semi-governmental but highly international and professional-based GONGO, China Council for International Cooperation of

Environment and Development (CCICED). CCICED incubated China's biodiversity conservation epistemic community and continues to provide consultative platforms and give advice on China's major environmental policies fields.

The Organizational Platform and Enabler of the Epistemic Community: *CCICED*

The China Council for International Cooperation on Environment and Development (CCICED) was founded in 1992 as a high-level international advisory body with the approval of the Government of China (CCICED). Consisting of senior Chinese and international officials and experts, and chaired by China's Executive Vice-Premier, it serves as a high-level advisory body with a mandate to conduct research and to provide policy recommendations to the Government of China on China's environment and development (IISD 2020). Canada played a key role in the establishment of CCICED and takes leadership as the Council's International Executive Vice Chair. [49]

CCICED is considered "one of the most prestigious and effective forums for international environmental cooperation" by many Chinese environmental actors (Economy 2004) and recognized as an important organization in identifying China's biodiversity problems and development of *China species Red List* (McBeath & Wang, 2008). Why is CCICED so powerful? This is partly due to its unique organizational relationship with the Chinese government, the

[49] Canadian government came along shortly after as the co-founder, primarily as the funding provider. During Phases I-IV, the President of the Canadian International Development Agency (CIDA) was the Council's International Executive Vice Chair and as such was the lead international decision maker on the Council. For Phases V and VI, it is the Minister for Environment and Climate Change Canada who serves as International Executive Vice Chair.

international environmental agencies and organizations, and domestic expert networks. It fills in an organizational gap in providing information coordination and expert advisory at the top level, among the three sides.

Unique Organizational Advantages of CCICED

CCICED is a unique government-sponsored NGO (GONGO) with strong international components. Its goal is to provide "expert and independent environment and development advice to senior decision makers at the level of China's State Council." In its stated missions, CCICED aims to act as a linking bridge between China and the international community, forming a platform for the open and objective discussions between "the government, society and international agencies toward harmonious development between man and nature" (CCICED 2012, 3). This means it will facilitate the inflow of international ideas and information (often along with international funding) and the outflows of Chinese information and practices and serve as a "high-level advisory body" in which international experts and Chinese government officials exchange views frankly and directly (CCICED 2012 3).

There are not any other organizations like CCICED in China's environment or other policy domains; nor are there any similar organizational mechanisms for international consultation in other countries (CCICED 2012 5). It is semi-governmental but highly international and professional-based. As such, its advantages as a high-level advisory body come from three organizational strengths: *government embeddedness*, *international engagement*, and *high level of professionalism.*

Government embeddedness*:* CCICED is created by the Chinese government and headed by a high-ranking government official, but its leadership status is unusually high as a GONGO: the CCICED is chaired by a national leader in the State Council, an incumbent vice premier responsible for the national environmental protection.[50] In addition, there are two executive vice chairs, one from Canada and one China, both at the minister level, often with a few other vice chairs.[51] The Chinese members include ministerial ministers from all relevant departments.

Taking the international actors out of this formula, the CCICED is formed in similar fashion to the national-level advisory and coordinating small groups, or Leading Small Groups (LSGs)[52] as identified by Johnson et al (Johnson, Kennedy & Qiu 2017), such as the National

[50] It is common for the national GONGOs to be headed by Minister-ranked officials. For instance, the China Consumers' Association and All-China Women's Federation are all headed by minister level officials. Another environmental GONGO that the former NEPA director QU Geping created, China Environmental Protection Foundation (1993), is only headed by officials at Minister level and below. One exception is with the Red Cross Society of China, one of the largest public-raising foundation in China. Red Cross China is one of the few charity foundations that the Chinese government allows to fundraise within China. It basically monopolized charity donation in major disaster relief fundraising events. Its public image has been severely tarnished by the media reports of internal corruption and organizational incompetency in its disaster relief and social charity work. The Chinese government has allowed, through local-level government approval, other more societal-initiated charity foundations for public fund raising within China since the 2010s. The Red Cross Society of China used to be headed by the national president as the Honorary Director, and currently is led by the vice Premier and anti-corruption tsar, WAGN Qishan since 2017 (http://www.redcross.org.cn/html/2017-06/8842011.html). The list of the names is impressive, including Song, Jian, Wen, Jiabao, Zeng, Peiyan, Li, Keqiang, etc.

[51] The Canadian executive vice chair used to be the president of Canada's foreign aid and development agency, Canadian International Development Agency (CIDA) during 1992-2011, and now is the Minister of the Ministry of Environment and Climate Change Canada (MECCC) starting from 2012. The executive vice chair from China is the Minister of MEE (Previously NEPA and SEPA). The Secretariat Head Office is run by the minister of MEE (previously NEPA and SEPA) and part of the MEE (http://www.cciced.net/cciceden/ABOUTUS/Secretariat/).

[52] According to Johnson et al., LSGs are coordinating bodies that address important policy areas that involve several different (and occasionally competing) parts of the bureaucracy. The SLGs in here refers to groups under different names, including "not only bodies called LSGs (lingdao xiaozu, 领导小组), but any organization that has the same coordinating function and is headed by a Politburo member, the premier, a vice premier, or a state councilor. These would include groups known as "coordinating small groups" (xietiao xiaozu, 协调小组), "coordinating working groups" (xietiao gongzuo zu, 协调工作组), and several commissions (weiyuanhui, 委员会)." They found 83 LSGs in operation under Xi's administration in 2017, including 26 Party LSGs and 57 under the State Council. Johnson, Christopher, Scott Kennedy & Minda Qiu (2017), "Governance Signature: The Rise of Leading Small Groups". Center for Strategic and International Studies". https://www.csis.org/analysis/xis-signature-governance-innovation-rise-leading-small-groups.

Environmental Protection Commission (1984-1998) in the State Council, or the National Leading Group to Address Climate Change and Energy Conservation & Pollutant Discharge Reduction (2007 to now). To be sure, the CCICED does not have the administrative coordinating power of a governmental agency such as Leading Small Groups (LSGs). It was formed with the sole purpose of "giving advice."

The whole point of this high-level embeddedness was to create "a non-governmental body but with strong governmental involvement and support."[53] It is guaranteed to have access and be listened to by the government, especially senior decision makers.

International Engagement: *CCICED's* strength equally, if not overwhelmingly, lies in its international members and partner organizations. Half of CCICED's fiftyish members are representatives of foreign governmental agencies and international organizations, and it is primarily funded by international sources, with a major part from the Canadian government.

CCICED is supported by over twenty countries and international organizations. This is quite unlike other GONGOs, even in the environmental fields where international involvement is the highest among all sectors.[54] For instance, China's first environmental public-raising Foundation and a GONGO, the China Environmental Protection Foundation (CEPF) consists of

[53] CCICED Draft Terms of Reference. 1992. Proceedings. The First and Second Meetings of CCICED. https://www.sfu.ca/content/dam/sfu/china-council/PHASEV/2012%20Regional%20Balance%20and%20Green%20Development/CCICED%20AT%2020%20Report%20By%20Art%20Hanson.pdf

[54] Among approximately 200 active INGOs in China, the largest sector is environmental protection, at a number of 45, according to the Directory of International Non-Governmental Organizations of the NGO-focused consultant organization, China Development Brief (CDB). In Jie Chen, Transnational environmental movement: impacts on the green civil society in China." 2010. The number of environmental INGOs actively working in China jumped to 56 out of 189 INGOs (ranking second in all INGO active fields in China) in the 2017 data of CDB, in Macro Volpe, International ENGOs in China: A Significant Presence and a Fast-Changing Reality, 2017.

no overseas members. And even an environmental GONGO that is highly international, such as the Chinese National Committee for the Man and Biosphere (MAB) Programme, UNESCO (created in 1978) barely has any international members.[55] In stark contrast, CCICED's international members have comprised of "a mix of business leaders, international environmental experts, heads of conservation organizations such as IUCN and WWF International, environment and development research organizations and international bodies such as UNEP, the World Bank and governmental agencies from both industrial and developing countries" (CCICED 2012, 20). The members from these organizations serve CCICED in their individual capacities; yet the organizational connections are obvious. The level of openness and institutionalization of the international consultation through CCICED is unprecedented for the Chinese state.

High level of professionalism: CCICED is research based and macro-policy oriented. CCICED members include the most prominent scientists and experts in relevant fields in China, and its international expert team is made up of all-stars from globally prominent environmental organizations. Its strong research and professional base also bestowed great authority to the Chinese associates who work with them on the team.

Their policy research is conducted through expert research programs initially called *Working Groups* (WGs) that are three to five years in duration and later the *Task Forces* (TFs) which only last 6 to 18 months, occasionally up to two years. Each group consists of around 12

[55] MAB China currently has one representative of WWF sitting in its committee, Mr. Fan Zhiyong. There also is a UNESCO representative who is a CAS scientist. The total members of the committee add up to 51. See http://www.mab.cas.cn/gywm/jgkj/gjwyh/.

experts, usually in a half China/half international split. Their research results are presented at the annual general conference where the Premier of the State Council attends, among other officials. This part will be further elaborated in the case of CCICED's biodiversity research team in below section on "epistemic productivity."

To understand this organization and its unique role in the Chinese context, it is useful to compare and contrast it with three other related but more common types of organizations present in China and its environment (/development) sector: the national-level advisory and coordinating small groups, or Leading Small Groups (LSGs),[56] the Government-Organized Non-Governmental Organizations (GONGOs), and International Non-Governmental Organizations (INGOs). The similarity and differences of CCICED with the three other types of organization are highlighted in the three dimensions discussed above.

TABLE 4.2: Organizational Comparison of CCICED with LSGs, GONGOs, and INGOs (National Level).

	Government Embeddedness			International Engagement		Professionalism
	Coordinating power		Leadership ranking	International members and Leadership	International/domestic funding	
	Administrative	Informational				

[56] According to Johnson et al., LSGs are coordinating bodies that address important policy areas that involve several different (and occasionally competing) parts of the bureaucracy. The SLGs in here refers to groups under different names, including "not only bodies called LSGs (lingdao xiaozu, 领导小组), but any organization that has the same coordinating function and is headed by a Politburo member, the premier, a vice premier, or a state councilor. These would include groups known as "coordinating small groups" (xietiao xiaozu, 协调小组), "coordinating working groups" (xietiao gongzuo zu, 协调工作组), and several commissions (weiyuanhui, 委员会)." They found 83 LSGs in operation under Xi's administration in 2017, including 26 Party LSGs and 57 under the State Council. Johnson, Christopher, Scott Kennedy & Minda Qiu (2017), "Governance Signature: The Rise of Leading Small Groups". Center for Strategic and International Studies". https://www.csis.org/analysis/xis-signature-governance-innovation-rise-leading-small-groups.

National LSGs	Strong	Yes	High (ministers and above)	No	No international	Primarily bureaucratic
National GONGOs	Medium	yes	Medium to high (ministers and below, with rare exceptions)	No	Domestic, with exceptions.	primarily bureaucratic
INGOs	No	No	No	Yes	International but with increasing domestic funding	professional
CCICED	no	Yes	High (vice premier)	Yes	primarily international	Professional

Green Diplomacy, International Environmentalism and Policy Entrepreneurship: Politics Behind CCICED

Behind the all-star team profile of the CCICED, there were two contextual factors that boosted the organization's active roles and political influences in policy making, at least in its initial years.

First of all, CCICED was founded when China started to conduct green diplomacy in its international relations beginning in the late 1980s, especially in the aftermath of the June 1989 (Hao, 1992; Cai & Voigts 1993; McBeath & Wang 2008). China not only had the practical needs to attract foreign financial and technological assistance in its efforts to improve environmental protection, but also needed to break Western sanctions and isolation against its atrocities of the Tiananmen Massacre through a channel that was less politically charged (Hao 1992). The years between 1990 to 1992 witnessed the peak action of China's green diplomacy, in which

China sent out many Chinese delegations to other countries, hosted frequent international conferences/symposiums and signing on international treaties including the Convention on Biological Diversity (CBD) in 1992, all dealing with environmental protection and cooperation (Hao 1992; Cai & Voigts 1993; Chen 2010). The idea of creating CCICED played into the rising state interest in actively participating in the international environmental society and this largely explains its unprecedented high-level governmental profile.

The international conservation and development organizations, on the other hand, were eager to get on board as well, as this was an extremely rare chance to have an institutionalized channel to communicate with the state bureaucracy and decision makers in China. They welcomed the idea also because they had been looking for some coordinating platforms since China's environmental governance was extremely fragmented, resulting in duplications and gaps—and waste and inefficiency—in international programs due to the lack of information and coordination (CCICED 1992, 4). This situation was exacerbated by the increased inflow of international funds in environmental assistance, partly thanks to the G7 summit decision at Houston to add environmental criteria to loans to China in 1990 (Hao 1992).[57] The increased funding meant more international involvement in conservation-related projects and more urgent demands for coordination on the ground.

The idea of creating a policy platform like CCICED was proposed by Qu Geping, the exclaimed "founding father" of environmental protection in China in 1990 (Economy 2004, 187;

[57] The scale of the international funding flowing into China was stunning, and according to one estimate, fully 80 percent of China's environmental protection budget was derived from abroad. Esty and Dunn 1997, in Economy 2004.

CCICED 2012, 9). And he served as the vice-chairperson at CCICED for three terms from the start (1992-2006). The idea was supported by the then Supreme Leader Deng Xiaoping and the Premier, LI Peng. Qu's leadership in CCICED was important, as will be shown later. He is the same policy entrepreneur who founded and led the environmental legislative committee, Environment Protection and Resource Conservation Committee (EPRCC), in National People's Congress (NPC) at the time of the initiation of conservation area legislation.

Epistemic Productivity: CCICED Biodiversity Conservation Research

CCICED has policy decision makers' ears in Beijing and its mission is to provide sound and science-based policy recommendations on issues of national and international importance.

Starting from the founding year, biodiversity conservation has been one of the few topics on CCICED's research agenda. After 10 years of research on China's general conditions of biodiversity and policy recommendations, CCICED's research strategy and focus on biodiversity shifted to a shorter but more theme specific and policy sensitive one.[58] While investigating the forests and grasslands in response to the large-scale land conversion policies for three years, CCICED initiated its task force on the topic of protected areas in China in 2003, undoubtedly responding to the state's decision to launch the legislating process for a Nature Reserve law. Lumped under the overall theme of sustainable agriculture and rural development of that year's research agenda, the final report of the protected areas task force (PTFA) was submitted in the annual meeting of CCICED in 2004, in the title of "Using Protected Areas to Extend

[58] In 2002, CCICED decided to reduce the time duration of each of its research topics in order to render their findings and policy recommendations more time-relevant for issues at hands, and for that reason the topics have also become more specific and responsive to China's primary policy concerns over development and economy. Task forces replaced the Working Groups as well.

Benefits to Rural China." [59] An edited book titled "China's Protected Areas" was published in the same year as part of the project outputs.[60] One co-author of the book, the PATF coordinator and a young Zoologist, XIE Yan soon joined the expert small drafting group of EPRCC, clearly carrying the consensus and agenda of the CCICED PATF over to the legislating process.

The Formation of an Epistemic Community Consensus

In the exponentially growing process of an expert community, the formation of protected areas task force (PATF) at CCICED and their report during 2003-2004 was a turning point indicating the emergence of an epistemic community. The core members of the PAFT who had worked together on China's biodiversity conservation over a decade, as well as the associated scientists and experts, came up with a clearly articulated consensus, based on the shared conviction about conservation of ecological and biological diversity for China and the world. They also shared a consensus on institutional causes and effects of inefficiency of the current conservation institution, based on their research and practices in China. Relying on text analysis, I compare the CCICED 2004 PATF final report with their previous biodiversity report in 1993, and with other prominent proposals in the field to demonstrate the consolidated epistemic foundation for the PA reform in 2004.

[59] https://www.sfu.ca/content/dam/sfu/china-council/PHASEIII/SUSTAINABLEAGRICULTUREANDRURALDEVELOPMENT/2004%20TF%20on%20Protected%20Areas.pdf. The overall theme of the five task forces of CCICED that year was "Sustainable Agriculture and Rural Development".

[60] The long-term Biodiversity Working Group chairperson WANG Song, his former PhD student at CAS, XIE Yan, as well as the co-chair of the TF Peter Schei. Xie Yan, Wang Song & Peter Schei. China's Protected Areas. 2004. Tsinghua University Press.

CCICED Policy Proposals: 1993 vs. 2004

The 1993 and 2004 CCICED research reports are two milestone documents of the organization for its analysis of China's administration of biodiversity conservation. Upon establishment, CCICED quickly summoned a team of experts, the Biodiversity Working Group (BWG), to conduct a survey of China's biodiversity conservation and came up with policy solutions including suggestions for institutional reforms. After 10 years of continued research by its highly regarded team of experts, the 2004 report marked a consensus that drew the team to a set conclusion. With the two texts put side by side, the evolution of CCICED teams' issue framing and institutional solutions is shown on a path to advocacy for a unified PA system.

First of all, the concept of Protected Areas (PA) is clarified in 2004 while being super vague and confused with China's dominant type of PA, Nature Reserves, in the 1993 file.

In 1993 report, the BWG of CCICED applied the concept of PA, at least in English, without giving any explanation.[61] It was clear that a systematic examination of various conservation area categories was not in CCICED working group's purview. They were primarily concerned about "extension" and management of Nature Reserves, which was referred to interchangeably with PAs in their report (CCICED 1993, p6).

In contrast, the 2004 CCICED PATF report, after laying down the definition of protected areas and its social and economic benefits, listed many categories of PAs in China, with Nature Reserves being only one of them. It summarized the flaws of China's current PA system and proceeded to make its recommendations (CCICED Task Force on Protected Area 2004).

[61] Unfortunate there is no Chinese version available.

Second, on the front of institutional solutions, CCICED in 1993 recommended two separated routes for coordination and strengthening of conservation. It first advocated a national coordinating organ for biodiversity planning and coordination that sits above competing ministries.[62] They also recommended a coordinating ministry for all PA (Nature Reserves) under one single ministry, and possibly a national park commission that would coordinate and oversees tourism development in the PAs (CCICED 1993, 6).

In the 2004 policy recommendation in regards to institutions, the report clearly articulated three ideas: (1) China needs to re-categorize its PA system according to the IUCN categories, to integrate the management objectives into the PA designation and management; (2) China needs to establish an above-ministry level coordinating and overseeing organ for PA management within the State Council; and (3) it needs to draft an umbrella PA law, with specific PA category laws and regulations subsumed under the framework PA law. This was a proposal to coherently reorganize China's PA system with legal, administrative and technical measures all matching at the same level (Task Force on Protected Area 2004)

Table 4.3： Changes of CCICED PA Proposals between 1993-2004.

		CCICED BWG Report, 1993	CCICED PATF statement and Report, 2004
Concept of PA		No specification of PA in Chinese context; Interchangeable with Nature Reserves.	IUCN PA definition and categories. Reassign PA categories to China's current PAs.
Institutional Reforms	Biodiversity Administration	A national planning and coordinating unit under the State Council, with total legal, policy and financial authority.	None.

[62] This unit has actually been established in nominal fashion in 2011 (hosted in CAS), but it does not have the "clear legal, policy and financial authority" that CCICED suggested.

	Protected Areas	1. all PAs (NRs) put under one ministry; 2. a national park commission to oversee all PAs for tourism.	1. An above-ministry PA coordinating organ within the State Council, an environment and Natural resources committee associated with SEPA under the condition of SEPA relinquishing its control of NRs; 2. An umbrella PAs Law, with NR laws under it.

CCICED 2004 vs. Other Leading Expert Opinions Representative of Ministries

A search on the Duxiu Knowledge database for “nature conservation”, “nature reserves law”, “nature reserves legislation”, “nature reserves reform” in the early 2000s produces a couple dozens of results. If you filter out those analyses of specific nature reserve management which also usually appear in second-tier or local journals, and cross-check the citations to make sure not to neglect important publications, it appears that the seven to ten publications represent the leading opinions of the time approximating to the nature reserve legislation. This means they also represent the opinions of the experts and ministries on the NR management. The authors were mostly established experts in ministry-associated research institutes under State Environmental Protection Administration (SEPA), State Forestry Administration (SFA), Ministry of Construction, Environmental Protection and Resource Conservation Commission (EPRCC) of NPC, National Development and Reform Commission (NDRC), with one from the Chinese National Committee of the MAB (simultaneously holding a position in CAS). Some are collectives of special policy or legislative research team under SEPA or SFA.

A survey of these publications reveals a few features of expert opinions on nature conservation reforms. First of all, most literature supports the usefulness of IUCN categories, especially its ranked management objectives for remedying the deficiency of China's existing NR system. Yet these articles differed in the range and level of application of IUCN PA categories. An EPRCC publication briefly mentioned PA categories in passing (Sun et al.2004); an SFA affiliated paper considered the management objectives of IUCN classification for NR categories (Division of Wildlife Conservation, SFA 2003); one SEPA proposal used the IUCN system to reclassify all Nature Reserves (Jiang 2004), and some made proposals of reorganizing whole PA categories as in one SEPA-associated (Zhu 2002) and one Ministry of Construction-associated (Yang 2003;2003) proposals ;

Second, they differ in their emphasis on coordinating PA management, and in using administrative or legal measures. The SFA tends to emphasize the need to authorize NR administration, instead of creating a top coordinating organ for all PAs. Since these articles were not commissioned by the NPC to respond to the nature reserve legislation and were not even written in the same timeline, their views were not necessarily catering to addressing the specific need of Nature Reserve legislation; mostly likely, they were written as policy researchers from their ministries' stances, framing the issues in nature conservation and providing solutions they deemed fit and viable. [63]

[63] The EPRCC article in 2004 (Sun & Chen) is an exception. It was written after the legislation drafting research had taken place. This was more likely to signal EPRCC stance on the drafting.

For instance, SEPA and Ministry of Construction experts are most open to the IUCN PA categories, while one SEPA expert (Zhu 2002) suggested putting the Environmental Protection Agency in charge of unified managing all PAs as following the global trend, and the Ministry of Construction expert (Yang 2003b) referred to all PAs as natural and cultural heritage sites while the Ministry of Construction was the responsible ministry for world heritage designation and management. Yang also articulated on Scenic Areas being integral part of PAs as natural and cultural heritage, a topic other experts did not pay attention to.

In comparison, CCICED Protected Areas Task Force (PATF) based their report on the goal of biodiversity conservation and the eco services of PAs. Its advocacy of a PA system is most ambitious and thorough with technical, legal and administrative reforms at the highest level. It appeared to be the most neutral with regards to ministry interests. For instance, it suggested SEPA as the executive ministry of the state council PA committees, but only under the condition of SEPA relinquishing all of its direct NR management roles, which the SEPA experts never uttered in their proposals.

In comparison to the previous CCICED report and other proposals floating around, the 2004 CCICED report demonstrates the authoritative understanding of both an international PA system and a thorough assessment of China's existing categories and systems against this PA system; it proposes legal and administrative mechanisms in remedying China's fragmented system, accordingly. Its proposal appeal to be scientific, objective, interest-neutral, and catering

to China's existing conditions. This is a groundbreaking report and marks the consolidation of a consensus that epistemic community members rallied around in the unfolding reforms over the next 15 years.

Table 4.4: Academic Articles about Nature Conservation Reform and the Authors' Ministry Association, early 2000s.

Articles (books)	Author's Organizational Association	Key points on NRs/ PAs and institutional reform measures
Wang, et al. Classification Standards for NRs. 2004	Nanjing Institute of Environmental Science, SEPA; SEPA.	1. NRs need to be reclassified based on IUCN system; 2. In a brief paragraph, they suggest PAs be regulated first and foremost by legislation which put them under a unified management system (Jiang et al 2004, 9)
Zhu, Guangqing. Legislation and Management System of Nature Conservation Areas at Abroad. 2002.	SEPA.	1. Choice of Nature Conservation Areas in English while referring to PAs; Interchangeability of PAs, Nature Conservation Areas and Protected Areas in Chinese as 自然保护地; 2. It points out the trend in Nature Conservation Areas Legislation was to either enact National Parks Law or Protected Areas Laws, or to enact Nature Conservation or Biodiversity Conservation Law which include stipulations on PAs. 3. On administrative system: it points out that the unified management, particularly under environmental protection agencies, is the trend and widely accepted, compared to management under multiple agencies.
Studies on Multiple Questions Regarding Nature Conservation Legislation. Chinese Journal of Environmental Management. 1996	Nature Conservation Legislative Research Team, NEPA.	1. Current legislation on nature conservation was lacking and entangled and embedded in the natural resource legislation and pollution prevention legislation. 2. Recommended to enact comprehensive nature conservation legislation, and supplement it with other natural resources legislation and nature reserves law.
Sun, Youhai, Chen Shaoyun. Legislative Reasoning for Enacting Law of Nature Reserves. Environmental Protection 2004	EPRCC, NPC.	1. Future Law of Nature Reserves need to break down departmental divisions and put existing different categories under unified legal management (page 9) 2. It does not advocate a recasting of PA categories according to IUCN system. It proposes two additional categories: natural resource management type and cultural heritage type.

		3. It proposes to maintain the dual system of departmental management and comprehensive management of PAs.
Division of Wildlife Conservation Division. Study on China's Nature Reserves Policies.China Forestry Press. 2003.	SFA	1. Management objectives (Such as IUCN's) should be embraced in the NR administration; 2. Needs to overcome the department-dominated fragmented legislation on nature conservation. Create a joint legislative committee by all departments who manage NRs. 3. Authorize the NR administration with management rights of all resources within the NRs. (p164)
Ouyang et al. Discussions about Issues and Responsive Strategies Regarding the Administrative System of Nature Reserves in China. 2001	Center for Ecological and Environmental Studies, CAS. (in charge of Ecological Function Zone Planning)	1. Broaden the PA categories to include additional five PA types; 2. Create a single administrative authority to oversee all PAs and directly manage PAs. 3. Conduct overall planning for national NRs and re-designate qualified national NRs. 4. One national NR, one law.
Yang, Rui. Analysis of Current Situation of the Management of Natural and Cultural Heritage in China.2003. Strategies to Improve the Management of Chinese Natural and Cultural Heritage. 2003.	School of Architecture, Tsinghua University (associated with MOC for general planning) of SAs and other PAs. [64]	1. NRs and Scenic areas are all China's Natural and Cultural heritages, along with other PAs. 2. Lacking scientific planning, among seven deficiencies. 3. Create a unified management agency at the central government 4. One PA, one Law.
Han, Nianyong. A Policy Study of Sustainable Management of China's Nature Reserve. Jurnal of Natural Resources. 2000	Chinese National Committee, MAB. (CAS)	Recommendations for National NRs 1. SEPA needs to cut off its ownership of NRs and enhance responsibilities of planning and overseeing NRs 2. Reforms of internal system of NRs according to MAB ideals.

Conclusion

This Chapter gave an overview of the development of scientists and professionals in the conservation field, and explained how, in addition to the general pressure to address biodiversity loss under fast growth, four dynamics in China's conservation governance particularly contributed to increasing the demands and short supplies of top-level scientists and

[64] Landscape Planning (jingguan guihua 景观规划) was most thoroughly developed among the planning systems applied to PAs. This is because Scenic Areas were required to conduct scientific landscape planning in order to carry out tourism.

experts who are competent in giving policy advice. One direct consequence of this extensive and intensified expert consultation was the emergence of a latent network of top experts who are repeatedly tapped, frequently consulted and in constant collaboration with each other. This expert community provided the basis for the rise of an epistemic community, as it helped to breakdown the departmental divide and isolation among scientists and experts.

The conservation epistemic community is represented by a dozen or so outspoken conservation scientists, landscape planning experts, legal and administrative scholars, and international organizational staff. They share most of the traits of the broad expert community, in terms of their educational backgrounds, institutional affiliations, professional titles, international experiences and non-bureaucrat status; however, they also have distinct features. Issues of national parks and protected areas constitute an important part of their formative experience in their career life; and they collaborate closely with multiple international organizations. Unlike Haas' assumption, conservation epistemic community members are not the most authoritative figures, at least in term of an academic hierarchy with Academicians of Chinese Academy of Sciences (CAS) and Chinese Academy of Engineering (CAE) at the very top. However, their immersion in the fast-developing conservation field and close collaboration with international organization have bestowed them with additionally high credibility and authority in their fields.

In the last section of the chapter, I presented a particular organizational base for the rise of conservation epistemic community, CCICED. CCICED is deemed "one of the most prestigious

and effective forums for international environmental cooperation" by many Chinese environmental actors. It is *semi-governmental but highly international and* professional-based. Its creation was the result of the coming together of the expanding international environmentalism, China's newly pursued Green diplomacy and the active policy entrepreneurship of key political figures in China. Its political weight and vital international components allow CCICED to fill in a gap in informed and coordinated expert advising at the top level in China's conservation field. There is no direct evidence of its policy impact; however, its research on biodiversity conservation formed the epistemic foundation of a PA reform and forwarded a consensus that overcame the interest-infused departmental divides.

In the following chapter, I will demonstrate how the epistemic consensus formed by CCICED was soon carried into the conservation area legislative reform. The contestation of the epistemic community unfolded in a three-stage reform process, from nature reserve legislation to a final national park and protected areas system overhaul.

CHAPTER FOUR

Epistemic Community in the Reform: Legislative Battles (2003-2013)

INTRODUCTION

In "a problem seeking solutions" fashion (Kingdon 1984), China's protected area reforms took off with the state's legislative efforts on a nature reserves law in the early 2000s.

The 1990s was a prolific decade for environmental legislation in China. Following the Rio United Nation Conference of Environment and Development in 1992, the National People's Congress (NPC), the highest Legislative institution in China, not only adopted new environmental protection laws but also revised many existing environmental laws (Mu, Bu & Xue 2014). A 1994 State Council administrative regulation on Nature Reserves (NR) was deemed inadequate almost from its inception, for lacking the authority to adjudicate administrative conflicts over Nature Reserves, among other deficiencies. The legislation of a Nature Reserve law was pushed unto the state legislators' agenda during the 9th NPC term[65], and when it moved on to the NPC's Five-Year Legislating plan at the start of the 10th NPC, it was deemed a well-expected move.

[65] THE NPC EPRCC already took multiple investigative and research trips in 2002, during the 9th NPC. The legislative proposal was put forth by 30 NPC representatives during the first meeting of the 10th NPC in 2003. Sun & Chen 2004.

Unsurprisingly, this decision set off the usual bureaucratic bickering over turf interests in the future law. However, it also opened up opportunities for a latent network of conservation scientists, policy experts, law experts and experts in natural resources administration and economics to emerge with a consensual view and to intervene in the legislative process. The state's legislative plan went on a roller-coaster ride, first switching its agenda from a nature reserve law to a protected area law, then shifting to work on a natural heritage conservation law. After a legislative debacle, the reform revived in the administrative track, engaging a project of forming China's charismatic national parks which quickly escalated into a national restructuring of the entire protected area system. I argue that this is a process of norm diffusion through the continued contestation of a domestic epistemic community. The conservation politics went through three cycles of contestation to eventually converge with the global norms advocated by the EPISTEMIC COMMUNITY.

Phase I: From Nature Reserve Law to Protected Area Law drafting (2003-2006)

In this first cycle of reform efforts, the EPISTEMIC COMMUNITY emerged with a consensual agenda on protected areas reform after brewing it for over a decade through the international cooperation between Chinese and international conservation experts. It swiftly changed both the issue framing and policy solutions of the original agenda. The debut of the epistemic community was triggered by the opening of a window in the problem stream to solve a long-term institutional inadequacy. Its ability to impact the agenda setting lies not only in the scientific authority of its hosting platform, but also the bureaucratic alignment in the political stream, particularly the empowering connections between the decision making officials in the legislature—the NPC--and the platform that launched the EPISTEMIC COMMUNITY.

Phase II: Natural Heritage Conservation Law (NHCL) Drafting (2008-2013)

The political window closed with the leadership change in the NPC legislative committee and CCICED. New decision makers chose a reform proposal that scaled down to a new set of goals to avoid the previously contested NR law and PA law struggles. With a structure that left most ministerial stakeholders' interest intact, the leading bureaucrat was able to form a *bureaucratic-scientist alliance* in support of its natural heritage conservation law (NHCL) proposal. The EPISTEMIC COMMUNITY started to mobilize through a network of conservation experts and their associated civil society members. Largely through a campaign within the national legislative meeting, the EPISTEMIC COMMUNITY raised the profile of its PA ideas and tabled the NHCL proposal that was very close to being passed.

Phase III: National Parks and Protected Areas Reform (2013-present)

Xi Jinping rose to power and showed ambitions to build an "ecological civilization" (Geall 2015; Geall and Ely 2018). This drastic opening occurred in the political stream. Under the new political spotlight, bureaucrats were pressured for tangible reform outputs and sought more legitimacy in decision making. A National Park System reform abruptly appeared in the new leader's reform agenda, with high intensity. Despite causing previous contentions, the EPISTEMIC COMMUNITY 's PA advocacy soon returned to the decision consultation table. With the epistemic community rising to lead the national park reform consultation, China quickly established a unified administrative structure of PA system at the central government level and continues to work on the administrative and legal elaboration of its PA system with "Chinese characteristics."

In this chapter I recount the first two phases of legislative contestation in China's protection area reform in a Modified Multiple Stream Framework (MMSF). In the first section I lay out the puzzles of decision making in the two phases through a theorized lens of MMSF and flesh out arguments over the conditions for epistemic community contestation and its impacts. The accounts of the two phases follow before the chapter is concluded.

I. Epistemic Community and Legislative Battles (Phase I and II)

For a long time and not with unfounded reasons, the problems with China's biodiversity loss were framed as, at least from an institutional aspect, the lack of a basic law that gives legal stipulation on Nature Reserves (NR)-related affairs. A contestation between a PA law and a NR law between 2004-2008 and the PA epistemic community contestation against a natural heritage conservation law (NHCL) between 2008-2013 both took place in the legislative track.

The two phases share other commonalities in addition to a persistent opening in a constant ***problem stream***: the level of ***political salience*** of the conservation issues remained the same to the national leadership. They were not given much political attention by top leaders and thus remained as technical issues to be solved through routine bureaucratic bargaining and compromises. The political status of the reform is well indicated by its ranking in the national legislative plan in the two consecutive terms of the NPC. It was in the same second category as "legal *drafts under researching and drafting, to be submitted for deliberation when condition is ripe"* in both the 10th and 11th NPC (NPC 2004).

Thus, why did the decision-making bureaucrats choose to back a PA-themed proposal which had no ministerial support? And why did the succeeding legislative leader from the same ministerial background as the predecessor chose a completely different proposal? How did the epistemic community exert policy impacts in this case?

In this chapter I argue that the ***political alignment*** between the leaders at the legislative committee and the organization that cultivated the epistemic community empowered the PA epistemic community and their policy agenda in phase one. With this alignment disappearing during the second phase, the political window for a PA legislation was closed off and the PA epistemic community switched to a contestation mode.

Although PA ideas were not able to prevail, the impacts of the epistemic community were manifested in multiple aspects: it first changed both the issue framing and policy solutions in phase 1; it made it challenging to pursue old legislative agendas and forced the successive legislative leaders to choose a different route; and, last but not the least, it pushed a ready-to-pass legislative bill to fall by the wayside. In this process, the epistemic community grew and was joined by scientists and experts from different institutions.

II. Changing the National Legislative Agenda: 2004-2008

After the state put the nature reserves legislation on its official legislative agenda in 2003, the special committee of the NPC in charge of the legislation on environment and natural resources related issues, the Environment Protection and Resource Conservation Commission (EPRCC), was assigned to take on the lead role in carrying out this task.

The Environment Protection and Resource Conservation *Commission (**EPRCC)*** was created in 1993 and is chaired by retired senior officials from leading positions in line ministries or local government at the provincial level. The first two-term Director of EPRCC during the 8th and 9th NPCs (1993-2003) was its founding figure, QU Geping, the former Director of the Environmental Protection Bureau (EPB) under the Ministry of Urban-Rural Construction and Environmental Protection (MURCEP, the predecessor of both Ministry of Construction and NEPA), and then the Minister of the independent, vice-ministerial level NEPA. During both the following 10th (2003-2008) and the 11th (2008-2013) NPCs, EPRCC chairpersons were former Ministers of Ministry of Construction.[66]

In no sense was the Ministry of Construction's interest in the legislation neutral, as it oversaw the system of Scenic Areas that often overlapped with Nature Reserves and was also in charge of the administration of UNESCO Heritage sites as well. However, the EPRCC leaders of the term 10 and term 11 took quite different approaches to the drafting tasks.

In stark contrast to their successors, the 10th NPC EPRCC leaders[67] took a non-partisan stance and remained open-minded to the legislation proposals, particularly in terms of favoritism for departmental interests. They did not push a bill that favored their home ministry. The chairperson first ensured the EPRCC drafting small group was formed. And the group commanded the two leading ministries in nature reserves affairs, SEPA (environment) and SFA

[66] NEPA was initially a bureau under the predecessor of MOHURD, Ministry of Urban and Rural Construction and Environmental Protection.

[67] During the 10th NPC term, both the chairperson and the vice chairperson of EPRCC in charge of the NR legislation drafting were former Ministers of MOC. The Chairperson of the 10th NPC EPRCC, Mao, Rubai, was the former Vice Minister of the MOC (1993-1997). The Vice-Chairperson of the 10th EPRCC, Ye, Rutang, was formerly the Minister of the Ministry of Rural and Urban Construction and Environmental Protection (1985-1988), and Vice Minister of the MOC (1988-2001).

(forestry) in producing legislating drafts (Zhang 2004). Their separately drafted proposals, however, were quickly cast aside for being too departmental-oriented, especially regarding who would hold the leading administrative authority in overseeing the Nature Reserves.

EPRCC then took a very dramatic turn and commissioned a different team of experts in coming up with a new draft on PAs legislation, while carrying out extensive investigations and consultations. The EPRCC's leader smoothly embraced the new team's PA-themed proposal and led the legislation onto a deviating path from its initial assigned task. The new proposal was so radically different from the NPC legislative plan that the challengers of the proposed bill even accused it of being "illegal."

Interestingly enough, the newly entrusted PA legislative expert team overlapped with an advisory expert group working on biodiversity conservation for over a decade under a non-profit environmental organization, the China Council for International Cooperation on Environment and Development (CCICED). As elaborated in previous chapter, CCICED clearly articulated an alternative legislative path in the recommendation it made for the Chinese government in mid-2004. Its active members, represented by Dr. Xie Yan, brought the CCICED fostered consensus to the EPRCC legislative agenda and quickly produced the PA law draft for legislative deliberation.

Given a *state-corporatist technocratic* decision model, how could a proposal that had no ministerial support come to dominate the legislative agenda? What was it about the CCICED alternative that made it so powerful? My argument is *two folded*. On the one hand, upon the consensus formation at CCICED (see Chapter 3) , the epistemic community emerged with the scientific authority and interest neutrality derived from the organizational clout of CCICED; on

the other hand, the epistemic community's agenda domination was enabled by a political alignment between the leadership of the EPRCC at National People's Congress and CCICED when the three streams in politics, problem and policy flowed together (Kingdon 1984). In addition, CCICED provided a powerful platform to support the epistemic community's launching. Given Chapter 3's detailed discussions on the emergence of the epistemic community, the following section will focus on the latter two epistemic community-enabling effects of CCICED.

Enabling Epistemic Community

Political Alignment: Overlapping leadership of CCICED and EPRCC

As discussed in last section of Chapter 3, CCICED proposal bears high epistemic authority and interest neutrality and this gives clear advantages to a PA epistemic community. And the fact that the CCICED experts collectively produced a scientific proposal was remarkable, given that they belong to an organization outside of the state system. However, the smooth convergence of the NPC legislative agenda with CCICED ideas might not have happened if there were not the organizational clout of CCICED, particularly the leadership overlap of CCICED with EPRCC at the top.

As discussed previously, the former Minister/Director of NEPA, Qu Geping, was the founding figure of both organizations and served in leadership positions for both at overlapping times, as the chairperson of EPRCC during 1993-2003, and the vice chairperson of CCICED during 1992-2006, for three terms. The agenda setting for a nature reserve legislation

happened during his term in EPRCC of the 8th NPC, and for a visionary leader who cared to enact many environmental laws, it is logical to assume that he continued to pay attention to the development of the legislation he proposed to enact, and to push it along through his other organizational venue that was designed to give advice on such top-level decision making, especially with privileged international expertise. Meanwhile, the vice chairperson of the EPRCC of the 10th NPC who was overseeing the NR legislation as the drafting group leader was also a former minister of the Ministry of Construction, and he used to sit in the CCICED board as the vice minister of the Ministry of Construction (1993). Ye, Rutang was known to be sympathetic to a PA legislation during his EPRCC term (Lin 2010).

A Powerful Launching Platform: Organizational Support

The organizational clout of CCICED was also manifested in its capacity to draw support from government officials, top think tank experts and international organizations. In both the opening and concluding conferences of the CCICED Protected Areas Task Force (PATF), officials and experts from SEPA/MEP, SFA, Ministry of Construction, MOA, other ministries and top universities and research institutes, as well as international organizations such as Conservation International (CI) and British Wildlife Conservation International (BCI) were all present, while the PATF members attended in representation of their respective organizations as well (CCICED Dec. 2003, CCICED Oct. 2004). That guest list represents a lot of social capital for the PATF report and its team members.

Right after the concluding meeting of the CCICED PATF in late August of 2004 [68], a national press, *China Youth Daily,* published a report claiming some Chinese experts were calling for legislation for protected areas. The report interviewed three experts, Wang Xi, a law professor at Shanghai Jiaotong University, Yin, Chuntao, a scientist working for WWF, and Xie Yan from CCICED. They all clearly articulated the need for enacting an overarching PA law that covered the existing conservation categories. These experts and the report used *baohudi* (保护地) to refer to the IUCN concept of PAs, distinguishing their proposed legislation from the ongoing nature reserve legislation, *ziran baohuqu* (自然保护区) legislation (Zhang September 6, 2004). These experts actually came from or were closely associated with the PATF team, including TF coordinator, the future epistemic community leader and activist Xie Yan.

During the time when CCICED involved itself in the legislative drafting process, some other non-governmental organizations were also engaging the legislation through their own venues. The renown INGO *WWF* and a local NGO, *Global Environmental Institute (GEI*), for instance, both submitted their proposals publicly. WWF conducted a joint research project with the Agricultural University of China on issues related to community co-management of nature reserves in the legislation. The timing of the project from 2003 to 2004 was telling. Its 2004 international symposium on NR legislation in Beijing invited all relevant ministry representatives in addition to other experts; and even the Chairperson of NPC EPRCC attended it and gave a speech endorsing the WWF proposal (Qiu Nov 17, 2004)). Global Environmental Institute (GEI) was a Chinese domestic environmental NGO, founded in 2004 by Jin Jiaman, one

[68] CCICED China site. 中国保护地研讨会. http://www.china.com.cn/tech/zhuanti/wyh/2008-01/10/content_9512632.htm.

of the co-founders of China's earliest environmental NGOs, Green Earth Volunteers. While explicitly endorsing and drawing on the CCICED proposal to create an overall PA system, GEI focused on introducing contracted management and concessions in conservation into the legislation draft (GEI 2005). There seems to be an implicit division of labor between CCICED and other involved organizations: CCICED would tackle the fundamental institutional framework while others proposed important aspects to complement CCICED's plan.

Two PA Law Drafts: Contested and Defeated

A draft of PA law by EPRCC, NPC emerged in early 2006. Within few months, another draft was produced, with revisions on both the title and the content of the first draft. Even though the title change was not substantive, basically referring to protected areas in English, the content shifted quite drastically. The instability of the draft reflected, to a large degree, the pushback against such a radical reform of the conservation system based on the PA concept. Both drafts met strong criticism, and especially at the first consultation meeting when the first draft was released for discussion in Feb 2006 (Environmental Research Institute, WHU, 2006; Lin 2010).

The first draft, or the so-called *opinion soliciting version of draft* (草案征求意见稿) was titled *Protected Areas Law* (Draft), 自然保护法（草案）. It aimed to unify many conservation areas types into a PA system and reclassify them into three types according to different management objectives. It stipulated that SEPA be the supervising and coordinating organ of all PAs, and it would have no more direct management of any PAs (Xia & Liang 2007). According to

Xie, Yan's recollection, the experts at the Feb 2006 consultation meeting were relatively unanimous in agreeing that the legislation should cover a broad range and content since this was a high-level statue, while most opposition came from departmental representatives (Lin 2010). Criticisms uttered in the meeting ranged broadly, from PAs being an ill-advised foreign concept to Nature Reserves being a long-standing practice that should not be abolished. And underlying these controversies over concepts and ideas, were the ministries' strong, self-interested incentives to oppose the proposed PA law. For one thing, in the draft law, SEPA was promoted to a supervising position above all ministries running PAs. That was not what other ministries wanted, especially not the SFA who ran most nature reserves and controlled wetland parks and forest parks. In March, EPRCC convened another consultation conference in Hangzhou (Li, Xiaopeng 2006).

The second draft, *draft of opinion soliciting version* (征求意见稿草案), was produced by the end of May, titled *Natural Protected Regions/Areas*(自然保护区域法). The title switch was supposed to respond to the criticism that the translation of PAs in the first draft into *baohudi* （保护地）seemed to refer to only terrestrial areas. The *quyu* (区域) in the second draft title meant to be more general to include both terrestrial and aquatic areas, but not without generating other language problems. This time the second draft retreated from the ambitious plan for an overall reclassification scheme and focused more on the reform of Nature Reserves based on the Administrative Regulation of Nature Reserves. This was also done in response to the criticism of the first draft's lack of attention to the main conservation category, Nature Reserves, during its first round of consultation. In July, EPRCC requested the Chinese National Committee of MAB to discuss the new draft during the convening of its 8th annual Chinese

Network of Biosphere Reserves (CNBR) meeting. This time the consultation attendees were from about 50 nature reserves in the CNBR, top EPRCC leaders, and over 10 staff of an INGO, The Nature Conservation (TNC). This specific consultation seemed to be an effort to listen to the grassroots practitioners of nature reserves and their partner INGOs and shore up their support. While holding different preferences over the second draft and first draft, the experts seemed to reach some common understanding of the intention of EPRCC on the second draft and was willing to go along with it (The Secretariat of Chinese National Committee for Man and Biosphere Programme, UNESCO, 2006).

The second draft was rejected by ministries again during its discussion phase, however. In late 2006, the lead researcher and Director of Bill Drafting Office at EPRCC published an article calling for the enactment of a nature conservation law to serve the interest of the people, not the departments. It introduced the ideas of the second draft of PA law and criticized those opposing it as only defending departmental interest (Sun 2006). This article signaled a deep frustration with the law makers.

Clearly, EPRCC can promote a departmental interest-neutral legislative proposal over others, yet it cannot force the ministries to approve it. Despite the publicity and high profile of the environmental legislation, China's legislative branch was weak and EPRCC specifically did not hold a higher authority over line ministries. Legislations are products of bargaining and compromises among ministerial actors, as Lieberthal points out (1998), unless other intervening events occur. The EPRCC in the following term almost pushed through a partial interest bill,

demonstrating what a bureaucratic maneuver at the top levels could achieve, if there were no mobilized opposition from outside. [69]

Table 5.1: Timeline of Epistemic Community Emergence and its interaction with law makers regarding PA legislative proposals.

Timelines	*Law making activities*	*Epistemic community and Consultation*
2003	NPC legislative plan.	CCICED PATF formation; WWF and CAU project on co-management of NRs;
2004	EPRCC drafting started. SEPA and SFA presented drafts and rejected. EPRCC started PA law drafting.	CCICED PATF report (conference); WWF and CAU project report (conference);
Feb 2006	EPRCC first draft publicized (conference), criticized by ministries.	TNC and ADB sponsored the meeting.
June 2006.	Second draft release (consultation meeting)	MAB and TNC sponsored the meeting.

III. Contestation and Mobilization of the Epistemic Community during the Natural Heritage Conservation Legislation

Window Closing off in Political Stream

[69] During the drafting and consultation period of the PA legislation, INGOs were closely involved in the process. The international symposium of around 200 experts and officials in February 2006 was organized by EPRCC but sponsored by IUCN and Asian Development Bank. The July consultation meeting was organized and sponsored by TNC and Chinese National Committee of MAB.

As the two PA law drafts met with strong resistance, windows for the epistemic community to set the decision agenda had eventually come to a close. Qu Geping retired as vice chairperson from CCICED in 2006, and the EPRCC leaders who supported the PA law stepped down in 2008 upon finishing their NPC terms.

The new EPRCC chairperson, Wang Guangtao, was also a former minister of Ministry of Construction, now changed to Ministry of Housing and Urban-Rural Development (MOHURD).[70] However, unlike the former minister Ye Rutang, Wang never sat in the CCICED committee during his service at the Ministry of Construction. He was no less ambitious, though, in terms of leaving a legacy behind from his post at the EPRCC. During his term as the leader of EPRCC, he wanted to push through the Environmental Protection Law revision, and a nature conservation law in the form of the Natural Heritage Conservation Law (NHCL). Probably seeing no easy way out of the stalemate around the PA law legislation and also lacking interest in pushing for a law that boosted the SEPA, Wang quickly changed the course of legislation to enact a Natural Heritage Conservation Law (NHCL), which conveniently fell under the jurisdiction of the MOHURD. To make sure it followed through, he was on the case from the start, and very devoted.[71]

Compared to a framework or an umbrella law that the PA law drafts attempted to enact, the Natural Heritage Conservation Law aimed to only cover a small portion of PAs, the part of PAs that are deemed "most valuable" and allegedly most in need of protection,

[70] Wang is nephew of the former Shanghai Mayor, Wang Daohan, a close associate of the CCP leader Jiang Zemin.
[71] Before the first draft was made available for consultation in Feb. 2010, rounds of research and consultation trips and meetings had already been conducted, with Wang heading many by himself.

according to the reported justifications for this legislation. It touched upon the "most valuable" protected areas but left the remaining areas under the same administrative structure unaffected, or even worse off. This law would effectively reshuffle the cards among the MOHURD, MEP and SFA, while other ministries were only slightly affected. Such measures were supposed to make it easier to go through than a sweeping reform of the whole PA system. And despite the departmental interest obstacle, mostly from the SFA, thanks to Wang's personal influence and dedication, the bill almost made it to the decision agenda of the NPC annual session in 2012 and 2013. It successfully moved through the EPRCC approval, NPC standing committee approval, and State Council approvals, respectively.

In response to these legislative efforts, the then marginalized expert opinions, particularly from the epistemic community network, started to voice oppositions and mobilize allies, and eventually thwarted the state agenda at a critical moment. At this point, the nascent epistemic community took on the active role of opposition, advocacy and mobilization. It went beyond being a peaceful scientific community and begun to rally the support from the civil society while taking numerous political actions in writing petitions, organizing networks, and calling on media and political representatives in the highest political representative organs. The following section describes the interactive process behind the epistemic community's contestations and advocacy.

First Draft, 2010

The first draft of the Natural Heritage Conservation Law (Feb 2010) aimed to combine the national-level Nature Reserves and National-level Scenic Areas under the jurisdiction of one

law, and still rely on the NR and SA administrative regulations for the merged heritage administration. Moreover, in this draft, only the core protected areas of national Nature Reserves and Scenic Areas were protected as the natural heritage. Once revealed, the draft was strongly resisted by the SFA since SFA's authority over the national Nature Reserves would be cut down drastically. An expert official from the SFA called this legislation "a regression in history and catastrophe in nature conservation" in China (Green Earth Volunteer, 2011). However, the draft was most vocally opposed by the experts who believed the law would leave out most of the PAs (except the part of the 600 national Nature Reserves and Scenic Areas to be covered by the NHCL); that these neglected PA areas would continue to be under-regulated; and, finally, that such patchwork designations would not comply with the ideals of conservation ecology, which emphasizes the connectedness of protected habitats and ecosystems. To be clear, the national Nature Reserves and Scenic Areas are set up with different mindsets: Nature Reserves are for strictest protection while Scenic Areas are created primarily for tourism development. With the two regulated together, tourism now seemed to take prominence over conservation. During the consultation meeting organized by EPRCC in Feb 2010, some of these concerns were uttered by Xie, Yan and a scholar, Dr. Su, Yang at the State Council Development Research Center (DRC). Neither of them was associated with the SFA. However, most of other attendees seemed to be willing to go along with the proposal (Lin, Nov 24, 2010).

After the February meeting, the NPC moved forward to publicize the draft Natural Heritage Conservation Law online for public opinion solicitation. In August, the EPRCC approved the draft, and planned to submit the draft to the NPC Standing Committee (NPCSC) for approval (Sun Sept. 26, 2010).

As this process unfolded, the expert community mobilized its members, NGOs and media in opposition. In September, eleven academicians, consisting of the highest endorsed scientists and experts in the country, allegedly wrote to the then Chairperson of the Standing Committee of the NPC (NPCSC), Wu Bangguo, urging him to not pass the Natural Heritage Conservation Law due partly to its immaturity (Green Earth Volunteers, 2011). The EPRCC of NPC continued to hold consultation meetings, during which the drafting team did not adequately address the oppositions' questions and challenges, according to insider reports (Xinhua, Dec. 20, 2010). During this critical period, the epistemic community used its authoritative claims to knowledge about nature conservation to propagate their ideas about the appropriate institutional reform. It appears that domestic NGOs, INGOs, media and epistemic community members jointly created a wave of media campaigns, challenging the proposed Natural Heritage Conservation Law.

2010 was the designated International Year of Biodiversity Conservation. China-EU biodiversity Programme launched publicity programs for media and social media. It was joined by Chinese local environmental NGOs, the Green Beagle （daerwen, 达尔问）and the famous Global Village, Beijing (北京地球村) to host a forum on the Natural Heritage Conservation legislation in late November. PA law advocate, zoologist Xie, Yan and her former CCICED colleague, long-term China conservationist China, Dr. John McKinnon (on behalf of the EU-China Biodiversity Programme), along with environmental law expert Professor Gao, Lihong, an expert on natural heritage conservation law, Prof. Huang, Delin, and one think-tank scholar, Dr. Su, Yang from the State Council Development Research Center (DRC), presented at the forum

hosted by a journalist from the highly influential newspaper, *Southern Weekly* （Feng 2010）.

Due to the high profile of the experts and the media allies, the forum created a fair amount of public attention and debate around nature conservation legislation in the national media. The epistemic community and their voices started to be heard by the broader public.

The SFA was also active in shooting down this legislation proposal. Most of its activities were maneuvers among ministries, creating coalitions against Wang's MOHURD-favored draft. It critiqued the draft for being unreasonable and inoperable (interview Nov. 2018). Its experts went out to public forums to reach out for support, as it feared that once the draft got into the formal decision-making phase (i.e., in the process of NPC reviewing), opposing ministries' influences would be minimized or even shut out of the process.

Its fears were not unfounded, as EPRCC took the forward step to submit the draft to the Standing Committee (NPCSC) in the end of 2010, despite controversies and criticisms from the ministries, science community and civil society. Within one year, NPCSC approved the EPRCC proposal and were ready to start the formal review in NPC, which is more likely to lead to final approval than otherwise. In contrast, MEP did not oppose it openly. Some of its experts even strongly supported the legislation, claiming it was a rare opportunity to push for legislation on nature reserves and we could not afford missing out the precious opportunity to pass a nature conservation law that has been desperately needed (Interview Sept 2018). MEP's interest would not be as adversely affected by this legislation as by the PA law, which would also have a mixed effect on the ministry.

Second Draft, 2012

Struggles over the legislation were just heating up. In 2012, shortly before the annual two sessions of NPC and CPPCC, the draft law of Natural Heritage Law was submitted to the State Council to get approval from relevant ministries before it reached the final NPC reviewing process. This draft changed the designated areas for protection from the "core areas" of national Nature Reserves and Scenic Areas to just the national Nature Reserves and Scenic Areas, while the remaining parts basically stayed the same.

On the same day, Xie, Yan called out to the press and social media. She was determined to stop the legislative process, "using any measures possible" (Liu March 5, 2013). She organized symposiums and conducted surveys in order to give inputs to the upcoming Two Sessions. The media publicized her campaign and her associated experts' opinions widely. These efforts appear to have made an impact. During the Two Sessions in March, sixty-one NPC and CPPCC delegates proposed to enact PA law instead of Natural Heritage Conservation Law (NHCL) while sixty-nine delegates proposed to speed up the latter legislation (Yicai, March 6, 2013). Many pro-PA law delegates were prominent scholars, conservation practitioners, and local officials from biodiversity hotspots (Liu 2013). In contrast, there had only been three total NPC proposals and one CPPCC proposal regarding the PA legislation in the earlier two sessions in 2012.

The drama created by Xie Yan's campaign especially during the 2012 Two Sessions did end up stalling the fast moving Natural Heritage Conservation Law (NHCL) legislation. The State Council asked the EPRCC to revise its draft law due to the strong criticism it incurred, and the revised version was not turned in until August of that year. During this time, about fifty experts joined Xie Yan's call for PA legislation and formed a network style of NGO PA legislative

Research Group[72] to draft their own PA law. This network would add more than one hundred new members over the next year, coming from universities, research institutes, environmental INGOs from Beijing and local provinces. [73]The members of this NGO specialized in ecology, law, policy research, economics and administration, with some of them working in the civil society sector (Yi Feb 2013). As the title of the NGO "PA Legislative Research Group" indicated, Xie, Yan was to draw on this network to present a PA legislative proposal. The NGO started working on a draft.

The law makers made the move to pass the Natural Heritage Conservation Law (NHCL) legislation again. In late August of 2012, the State Council, upon receiving the revised draft of the NHCL from EPRCC, sent it to over twenty ministries and departments for comments and approval, asking for immediate responses with the file labelled as "extremely urgent" (te ji，特急). The law makers were trying to push it through before the NPC term of the EPPRC Chairperson Wang, Guangtao came to the end at the annual Two Sessions in early 2013.

The epistemic community reacted to it immediately, not only with strong opposition but with its own elaborated proposal. In September 2012, during a Chinese Academy of Sciences (CAS) hosted meeting organized by Xie, Yan for her NGO, the PA Legislative Research Symposium, she announced that their own NGO-drafted a PA Law for public consultation (Xie 2013). On the same day, over sixty scientists and experts, including some academicians, signed

[72] The PA Legislative Research Group organized by Xie Yan is a loosely organized NGO, or a network. It is unlikely an officially registered NGO, as the approval process is lengthy and challenging with all kinds of requirements.
[73] Members come from Beijing University, Beijing Normal University, Guizhou University, Xiamen University, Nanjing Institute of Environmental Science, SEPA, and many environmental INGOs.

a proposal to the NPC Standing Committee, urging it to stop the legislation on Natural Heritage Conservation while calling for the PA legislation (Yicai, March 6, 2013; Shen, Sept 13, 2012). [74]It is clear that Xie, Yan and her network were behind this petition.[75]

The head-on collision between the epistemic community and the bureaucratic law makers continued to escalate from both sides, resulting in a perfect storm during the Two Sessions in 2013, something unprecedented in the nature conservation legislation history. The Two sessions delegates appeared to be divided into two rivalling camps around nature conservation, with EPRCC and some representatives and delegates firmly supporting Natural Heritage Conservation Law (NHCL), while around 400 delegates, including some academicians, some so-called democratic parties, and delegates from 13 provinces and municipalities strongly opposing NHCL and calling for PA legislation. Moreover, Xie, Yan's legislative Research Group's PA law draft was submitted as a formal Two Session proposal by Beijing Municipal Delegation. This is the first time for an NGO to propose a well-researched and clearly articulated legislative proposal (Zhang 2013).

NGOs and Civil Society advocacy for legislation was not uncommon in China; however, it used to be mostly callings for action with abstract ideas, not with elaborated legislative proposals. According to some observers, starting from 2010, the NGO and civil society proposals for legislation had become popular and in 2012, the quality and quantity of the civil society proposals reached a new level as indicated by the PA law proposal (Zhang, 2013). One

[74] The signed academicians include Sun, Honglie, a soil geographer and land resource scientist from CAS, a biologist, ecologist and ornithologist Zheng, Guangmei from CAS, and Botanist Zhang, Shixin from CAS (Yicai 2013).
[75] The names are obtained from the media report. My requests to Xie, Yan and her NGO for a full list of the signatories for the petition were unanswered.

weakness of China's NGOs, among many constraints, is their lack of technical know-how (Hsu & Hasmath 2017). This has significantly limited their ability to come up with high quality proposals. In contrast, Xie, Yan and her NGO were able to have a ready alternative in competition with a dominating draft. And this has to do with the mobilized expert community and their dedication to the cause.

Unfortunately, legislative divides like this result in deadlock. The Chairperson of EPRCC Wang Guangtao stepped down into retirement[76]; and there was no sign that the new EPRCC chairperson was willing to push through his predecessors' legacy bill against such strong opposition. Nature conservation legislation was quietly dropped off the 12th NPC's five-year legislative plan in 2013. Reforms of conservation institutions seem to reach a dead end and slipped off the government's agenda.

long will the state set aside the issues of conservation and wait for some future unknown occasions to address them?

Table 5.2: Mobilized Contestation of Epistemic Community against Natural Heritage Conservation Law:

Timeline	*Law making actions*	*Epistemic community responses*
2008	Natural Heritage Conservation Legislation	
Feb. 2010	Consultation Meeting with State Council ministries and experts, publicizing its first draft.	Few scholars but the epistemic community members opposed the draft.

[76] Despite the disappointment and pushbacks against the EPRCC's legislative plan in conservation system, the Environmental Protection Law of China, the most fundamental law for environmental regulations of the nation, was successfully revised and passed in 2014, although with quite some contestation and controversies (Zhang et al., 2013; Zhang et al, 2015). With one-year delay, Wang Guangtao, the director of the EPRCC NPC, did achieve something during his term of EPRCC.

March 2010	NPC publicized the draft online for public opinion solicitation	
August 2010.	EPRCC approved the draft and was ready to submit to NPC Standing Committee	
September 2010		11 academicians sent a petition letter to Chairperson of NPC, WU Bangguo, urging a halt the Natural Heritage Conservation legislation.
Nov. 2010		Media mobilization through INGO and Green Beagle along with other NGOs.
End of 2010	Draft submitted to NPCSC.	
Oct 2011		Local NGO advocacy: An SFA official participated Environmental Journalist Saloon at Green Earth Volunteer (lv Jiayuan 绿家园), a Beijing based NGO, uttering strong opposition to the Natural Heritage legislation.
Dec 2011	NPCSC approved the EPRCC proposal for NPCSC to review the draft	
Feb 2012	Draft Law submitted to the State Council to solicit opinions from relevant ministries.	Xie Yan waged the public campaign, obtaining support from NPC and SPPCC delegates.
March 2012	Two Sessions. Draft Law (for public opinion solicitation) available online.	61 delegates proposed to enact PA law while 69 supported a Natural Heritage Conservation Law.
April 2012		PA Legislative Research Group was formed with 50 expert members.
August 2012	Revised draft submitted to the State Council; In three days, the State Council sent out the draft to about 20 ministries and departments to solicit opinions, in Extremely Urgent document (August 24).	
September		September 3.

		1) The NGO (PA Legislative Research Group)'s draft PA Law was released; 2) PA legislative Research Symposium being held. 3) 60 experts including a few Academicians singed a proposal to NPCSC, asking to stop the Natural Heritage Legislation.
March 2013 Two Sessions	EPRCC pushed for passing of NHCL.	400 delegates opposed NHCL and called for PA legislation; Draft PA Law was submitted as a formal bill to the NPC.

Conclusion

This chapter focuses on the first two stages of the epistemic community's contestation in conservation area reform, particularly the legislative battles in enacting a conservation area law.

Once emerged and upon entering into the decision-making scene, the epistemic community succeeded in completely changing the legislative agenda. It reframed the problems as an issue related to the of lack of scientific organization and coordination of the protected areas instead of a narrower NR regulatory deficiency and proposed to reorganize the PA system with administrative and legislative measures, specifically through a PA law that relies on a

widely accepted IUCN PA classification system. The two epistemic community-backed PA law drafts were met with strong opposition from the ministries. But the epistemic community continued to exert influence and grew stronger in the following legislative battles, contesting the Natural Heritage Conservation Law proposal.

The ***impacts of*** the epistemic community and its activism are undeniable in these two stages. In addition to changing the legislative agenda in the first and derailing a near-passed NHCL proposal in the second stage, the epistemic community introduced the PA norm to an enlarged policy community. Its contention-imposed constraints on decision makers for their viable reform options, as shown in a choice of NHCL in stage 2 and will be shown in the stage 3 in chapter 5.

Through a theoretical lens of Modified Multiple Stream Framework (MMSF), I demonstrate that the conservation epistemic community's quick takeover of the conservation area legislative agenda was enabled by a ***permissive political alignment*** at the bureaucratic leadership level between the environmental legislative committee and a unique government-sponsored NGO. CCICED bears huge scientific, political and organizational prestige, and provided a foundation and platform to launch the epistemic community into the decision-making core. Once the favorable bureaucratic connectiveness at this level faded, the legislation soon switched away from a PA proposal.

Not only does that the political opening greatly matter for an epistemic community's impact, but China's conservation reform also demonstrates additional features not recognized in Peter Haas' theory (1992), particularly how the epistemic community's political activism can act as a collective idea agency. And that is the ***political activism*** of epistemic community as a

collective idea agency. When the political window for a PA law was closed, the epistemic community took on the opposition position. The epistemic community members not only voiced their opposition when consulted, but also adopted civil society strategies to rally support from an enlarged policy community. The leader formed an NGO with prestigious scientists and experts, conducting PA themed legislative research and drafting activities. Together, they waged media campaigns with civil society allies and mobilized petitions from the elite scientific community. Their final blow on the NHCL came from an all-out style campaign that mobilized within the state's highest legislative and deliberative meetings, the NPC and CPPCC.

This characteristic of conservation epistemic community in China could imply a theoretical vagueness of Haas' classic literature; it is also likely an indicator of the vulnerability of the epistemic community in an authoritarian technocratic context, when the bureaucrats are not aligned with it. Without the intense campaign and mobilization, it would not be able to defeat rival alternatives, to say nothing of succeeding in mainstreaming their own ideas. Despite having to fight to keep other alternatives off the decision table, the fact that the epistemic community could still mobilize and access higher decision venues (two sessions) demonstrates that there is space within the authoritarian regime to defer to rational thinking in scientific authority.

However, none of the above is possible without dedicated individuals from the epistemic community, especially the leadership of Xie, Yan. Without her unconceding activism and policy entrepreneurship, especially in the second stage, the NHCL would not have been aborted. Nevertheless, underpinning her activism was the scientific authority of an epistemic community and its convincing narratives. When the national park reforms rose to the national

stage in 2013, Xie, Yan eventually took a back seat and kept her campaign in low profile. However, many more other scientists and experts joined the epistemic community to continue to the battle.

Chapter FIVE

National Parks and Protected Area System Reform: The Return of the Epistemic Community

Introduction

Entering the Xi Jinping era, China has surprised the world with its environmental leadership, particularly with its climate change pledges to address the global warming crisis. Less well known are China's equally significant steps at home to upgrade its environmental governance, with biodiversity at the forefront of this reform. In recent years, China has aggressively tackled the institutional problems in natural resources protection and nature conservation. Since the 18th Party Congress, China has officially rolled out national park system reforms with pilot parks in nine provinces, and further planned to construct a unified protected area system with national parks as the "main components" (Xi, 2017). This was soon followed by a massive administrative restructuring of the State Council, which took a major merging and trimming action against natural resource management and land use planning procedures.[77] In this sweeping reform—the biggest in the PRC's history—conservation-related functions were moved out from their original resource management departments and regrouped under one single agency, the National Forestry and Grassland Administration (NFGA), under the newly

[77] The reform tenet was to achieve the goal of making one department in charge of one thing (yi ge bu men fu ze yi jian shi qing, 一个部门负责一件事情. In this round of ministry reshuffling, eight ministries and seven vice-ministry level departments were cancelled, with eight new ministries created.

created Ministry of Natural Resources (MNR). China also created a brand-new agency, the National Parks Administrative Agency (NPAA), in charge of all national parks and protected areas. With this new structure in place, China has entered a new age of biodiversity conservation.

For past few decades, the biggest obstacles of conservation institutional reforms were bureaucratic interests in a decentralized administrative system in natural resource management based on resource types. Any proposed reforms had to deal with the reality of these highly fragmented institutions. Both the failure of the previous Protected Areas legislation in 2006 and the almost successful attempt of the Natural Heritage Conservation legislation in 2010-12 can be attributed to the bureaucratic infighting to protect or expand their assets and turfs. What changed after 2013? How did the state manage to break the bureaucratic deadlocks? Why did it wage a national park system reform and end up with a massive PA overhaul? How did the protected areas ideals return to the state agenda and prevail?

Moreover, president Xi Jinping's announcement of a national park system reform at the 3rd plenum of the 18th Party congress appears to represent a coupling process in Kingdon's Multiple Stream Framework (MSF), that is when the political, problem and policy streams intercept and generate decision agenda (Kingdom 1984). However, it turns out that there were no ready alternatives, i.e., policy ideas with problem framing and policy solutions worked out as Kingdon assumed in the coupling. At the commencement of the national park system reform, the policy community had no idea what "a national park system" meant in China's context, to

say nothing of how to actually construct one. What explains this "empty coupling"? How does it affect the reform process and outcome?

I argue that both the "empty coupling" of the national park system reform and the reemergence and triumph of the PA reform in the subsequent process are the results of the epistemic community's impact in agenda setting and decision making through a dynamic interactive process with the decision makers in an unprecedented political opening.

Drawing on MMSF, I argue that the continued advocacy of an epistemic community pushed the protected area ideals back to the decision-making process where it would eventually prevail. Its impacts were first manifested in the adoption of an empty decision agenda by the bureaucratic decision makers to avoid controversies caused by previous PA contestations; and when bureaucrats tried to carry out the vague national park reform they were drawn to the outspoken PA epistemic community to seek legitimacy and credibility for their reform policies.

Second, the epistemic community impacts can be explained by the drastic opening at the top of the party state in the political stream, particularly the new regimes' focus on "ecological civilization" as part of a Xi's signature legacy and the imperative to create an omnibus reform agenda for the new party leader. This change in political salience affected the bureaucrat's incentives in two ways. First it changed the actual set of bureaucrats in charge of making reform decisions; and second, it shaped their overall calculations of the risk and benefits regarding the different reform choices. With the political salience of the issue rising high, planning bureaucrats in charge of the reform faced higher pressure to make justifiable

decisions and the epistemic community provided the authority and interest neutrality in their policy advice. And the career network of the planning bureaucrats also worked in favor of the epistemic community. Additionally, the administrative restructuring at the State Council level was bundled with the PA reform, making a radical version of the PA reform more viable.

In this chapter, I first introduce a puzzle of "empty coupling" at the start of the national park system reform; then I explain how the political opening affected the bureaucratic decision incentives, followed with the introduction of bureaucratic actors and epistemic community members at the center of decision making. Section II introduces the unfolding of the reform from the empty coupling, with the key bureaucratic actors and epistemic community members at the center of this interactive process. Section III provides the analysis of the recent administrative reshuffling that streamlined the PA system in unified fashion, followed by a brief conclusion.

I. National Park System Reform in a Drastic Political Opening

The Empty Coupling

The decade leading up to the 18th Party Congress witnessed the continued attempts to reform China's conservation area institutions, as a PA reorganizing agenda rose and contested other more turf-fortifying agendas. The bureaucratic logjam at the two consecutive annual Two Sessions led to the end of the legislative efforts for reforms. Would the state ever resume the reform agenda? Not only did new reforms reemerge much quicker than expected, but also in an extremely surprising form.

At the 3rd plenum of the 18th Party Congress of CCP in 2013, the most important plenary session in terms of political and economic reform agenda setting in the CCP tradition, the newly crowned party leader Xi Jinping laid down his comprehensive plan for deepening reforms that included a newly articulated ecological civilization system reform.[78] In this schematic party document, under the session of speeding up the construction of institutions and systems of ecological civilization, appeared the call for "constructing a national park system", seemingly out of the blue.

In the *Communique of the 3rd Plenum*, the national park system reform was mentioned in an 8-character part of a sentence. It followed the directives about implementing the Main Function Zone planning in national land use[79] and maintaining the Ecological Red line protection.[80] The *Communique* left out any mention of the controversial ideas about protected areas or nature conservation, nor was there any definitions, examples made, or elaboration of the type of national park or national park system that the party wanted to create. [81]

A schematic party document like *the Communique* is not expected to elaborate policies with details, for sure. However, this reform decision had no ownership to trace to, or policy entrepreneurs behind the decision that are known to push the ideas. My field work reveals that

[78] The other four components of human civilization, or the normal reform subjects, include political system, economic system, cultural system and social system.
[79] Main Functionl Zone Planning （主体功能规划）was a national land use planning scheme, put into operation in 2011 by the State Council. It is intended to be the unifying and most authoritative zoning system for land use. It classifies the national land into optimized development zones, key point development zones, limited development zones, and strictly no-development zones.
[80] Another zoning scheme proposed by the SEPA, aiming to draw the bottom line of conservation by setting aside critical important ecological areas from development activities.
[81] Xinhua. "授权发布：中国共产党第十八届中央委员会第三次全体会议公报" (Authorized to issue: The communique of the 3rd Plenum of the 18th Party Congress). November 12, 2013. http://www.xinhuanet.com//politics/2013-11/12/c_118113455.htm.

the policy community at the top consultative circles had no clue where the source of this mandate came from, even three years later (interviews 2015, 2016). One former MEP interviewee said:

> *After this policy was announced, nobody knew who proposed this idea. People from different ministries called me. Ministry of Environmental Protection (MEP) people asked whether State Forestry Administration (SFA) was behind the reform; SFA asked me whether MEP was pushing the idea; and Ministry of Housing and Urban-Rural Development (MOHURD) inquired who was making that policy. It is clear that nobody knew it (beforehand) (*Interview February 2016*).*

Recently battered in the heated struggle over nature conservation legislation, the policy community was acute to any new signs for policy development at the top. However, the origin story of the national park reform remains in mystery. The general answer I got from the interviewees about the origins of the reform decision goes something like that such and such a person probably heard of national parks from abroad and decided that China should have it. One senior bureaucrat was vaguely mentioned but he is not known to be associated with any conservation ideas or national parks.

How did the ideas of national park system reform decision land on the most important party agenda for the following 10 years? What did the party want to do?

I argue that this national park reform decision is a case of "empty coupling" in the sense of no meaningful framing and policy solutions attached to the decision. This is made possible when the development in the political stream creates a huge political opening that drastically

changes the decision rationale of bureaucrats when trying to address the problem in higher salience. The party's emphasis of environmental protection in a new ideological level and the need to present the new party leader, Xi, Jinping as a trail-blazing reformer both contributed to an opening to the conservation areas reform. Tasked with drafting the reform plans for the communique, the senior bureaucrats made a calculated vague plan to address the salient and contentious conservation area problems.

Political Opening under Xi Jinping

After a few decades of fast growth, China was facing increasing environmental challenges when Xi Jinping came into power. Ecological degradation and widespread environmental discontents brought tremendous threats to the regime's legitimacy and stability[82], especially at a time when China's economic growth rate had slowed down from double digits to a significantly lower "new normal." International pressure on China to address its environmental degradation was also high, with the failed Copenhagen Climate Conference (2009) being largely attributed to China's reluctance to commit to greenhouse gas emission reductions, for example. Upon Xi Jinping's assumption of the leadership, the party state decided to step up and lift China's environmental governance to a new level. And this intention was theorized and presented as the party's mission to construct an "ecological civilization" at the 18th Party Congress.

[82] It was described as "the ecological and environmental situation is very severe at present" in the statement made by the party congress document writer in the Party mouthpiece newspaper, People's Daily, right after the 18th Party Congress. Guancha, 2013.

Ecological civilization was not invented by Xi's administration.[83] Its original meaning was closer to the civility of ecology, i.e., good manners in dealing with environment and ecology. During Xi's term, ecological civilization was boosted as one of the five key targets of socialist construction[84], an ideology in the making. As an overarching and vague concept, it emphasizes the need to ensure the ecological well-being in all aspects of the social, economic, cultural and political development of human society. Echoing this party line, Xi also propagated slogans such as "*Clear Rivers and Green Mountains are Gold and Silver Mountains*", and made a calling for the party to build a "*beautiful China*" in the 18th Party Congress. Ecological civilization has become one of Xi Jinping's policy signatures.

As a Chinese Community Party (CCP) norm, the 3rd Plenum of the Party Congress is the venue for the party leader to reveal his reform package. Xi unrolled his policy platforms for "comprehensively deepening reform" at his first 3rd Plenum in 2013, and in this document, he announced the plan to "speed up the institutional construction for ecological civilization", including "constructing the national park system" (Xinhua, 2013).

The political opening of the new party leadership for conservation system reform was unprecedentedly high compared to the previous reforms. In a sense it moved the issue from a stable subsystem to the macropolitical punctuation (True, Jones and Baumgartner 1999, 102) that created opportunities for rapid policy changes instead of the usual incrementalism. How did the party end up presenting a vague coupling of a national park system reform decision?

[83] It appeared in the early 2000s as an umbrella concept referring to environmental protection and ecological conservation, originally vague and metaphorical in the Party propaganda lexicon.
[84] It is Five in One (*wuwei yiti*, 五位一体), also a new Party jargon invented in the 18th Party Congress.

Drawing on official party reports and interviews, I present the way in which the bureaucratic incentives for the decision were affected by this opening.

First of all, the reform regarding conservation areas was moved from the hands of National People's Congress (NPC)'s environmental legislative committee to the *central planning agency* at the State Council. Deemed as the most powerful department of the central state, the National Development and Reform Commission (NDRC) centralizes the planning and coordinating power at the highest level of the government and regulates the national policy development for the following five years and often longer.

Second, the imperative to present a competent reform package for the new party leader created a formula for the bureaucrat decision makers to come up with solutions to address pressure for reforms under constraints, in this case those posed by the legislative quagmire created by the PA epistemic community.

Before I move on to elaborate the points above, it is necessary to add a qualification about the political opening and salience. Decisions for national parks system reform was bold and arbitrary to a large degree; however, this needs to be put into the context. This reform was not the central focus of that party congress document. Under the tasks of institutional reforms for ecological civilization, there were a few major themes[85], and the national park reform was one sub-item under a main category of land use planning in the document; and more tellingly, it was not even mentioned in Xi's introduction of the party communique in a separate speech during the 3rd plenum (Xi 2013). This relative lack of importance at the outset probably lent

[85] Natural resources management in terms of property rights and assets management, land use management in terms of Eco Red Line but particularly the *Main Functional Zone* planning, and ecoservice payments system.

more room for arbitrary and vague ideas, as well as for less severe consequences and setbacks for the decision-making bureaucrats compared to other policy issues, if the decision was not well-calibrated. To be sure, national park system reform would soon become a "key task" for the party. According to some in the policy community, it has eventually become one of the two highlights of Xi Jinping's environmental governance legacy, holding the same significant status as his climate policies[86].

A political opening like this dramatically changed the incentive structure of the decision makers, including the personnel and their decision-making strategies.

The Bureaucratic Decision Makers and the Decision-Making Rationale

Author of the 3rd Plenum Communique, Yang, Weimin

The political opening created by the new party leadership pushed to the forefront a technocrat party official in agenda setting. Both media reports and my sources confirmed that the programmatic party document was authored by the planning bureaucrats at the National Development and Reform Commission (NDRC). A senior party bureaucrat, Yang, Weimin (杨伟民), is responsible for brainstorming and polishing the document till it was finalized.

Yang was the Deputy Office Director of the *Central Party Leading Small Group of Financial and Economic Work*. Being in charge of making the most important decisions on the financial and economic policies of the nation, the *Leading Small Group* (changed to Central Party Committee of Financial and Economic Work in 2018) is the most powerful decision-

[86] The national park system reform eventually turned into a key point for Xi's eco-civilization system reform (conference 2018).

making institution on China's economy, and is chaired by the president and general party secretary himself. While the premier and other top leaders in the *Small Leading Group* oversaw the drafting of the third plenum decision, the deputy office director Yang was the person who put the thoughts and ideas into words and coherent drafts.[87] As Tanner demonstrated in the case of China's Corporate Bankruptcy Law, the senior party policy writers working for top party leaders have quite some space to come up with unexpected and under-developed ideas, sometimes just to suit the strategic needs for sounding convincing and sometime for slipping their own favorite policies into the agenda (Tanner 1999) .

Yang is an expert party official. His major career time was spent on national development strategy, national mid-to-long term planning and economic structuring. He is the main person behind the most recent national land use planning scheme, the *Main Function Zone Planning* formally launched in 2011. Before being promoted to the position of the office deputy director of the *Small Leading Group* in 2011, he was the Secretariat of the powerful National Development and Reform Commission (NDRC).[88]

Drafting Principles: Reform, Reform, Reform

A major party document such as the *Communique of the Third Plenum of the Party Congress* needs clear guidance and principles in writing. In this case, it seems that everything had to do with fully deepening reforms (Xi 2013). In Yang's recount, he was deeply impressed

[87] The Third Plenum Decision Drafting Small Group was formed in early 2013. Xi Jinping was the chairperson, with Liu, Yunshan and Zhang, Gaoli as vice chairpersons. Responsible leaders of relevant ministries and some provincial and city leaders joined the group for drafting under the leadership of the Poliburo. Xi Nov 15, 2013.
[88] Yang, Weimin. Baidubaike https://baike.baidu.com/item/%E6%9D%A8%E4%BC%9F%E6%B0%91/17920.

by the guiding principles of the drafting process for reforms: first, only to write about reforms, especially major reforms; and other tasks such as those for development were left out for that reason. Second, during the revision period, any contents that would weaken the (at least the appearance of) reform efforts were cut off, while any reform ideas that got the greatest common divisor (zuida gongyueshu, 最大公约数)[89] and had some consensus would be added to them. The purpose of this bold drafting strategy was to demonstrate the strength of the resolve for reforms and bravery of the party secretary and new leadership collectives (Guancha, 2013). This strategy appears to have been a major success as many Party Congress attendants claimed that they "have never anticipated those reforms and are very surprised. The efforts of reforms are unprecedentedly high" (Yang in Guancha, 2013). National parks system reform should be one of the surprising decisions intended to achieve that impression, at least judged by the reaction of the policy community.

In a statement about this communique, Xi Jinping claimed that the document drafting went through broad and in-depth investigation and consultation (Xi 2013 2). However, the fact that no one claimed credits or stated that they were informed about the reform intention for the national park system, even well after the decision was publicly announced (Interviews 2015, 2016), indicates this reform choice was not widely consulted on or discussed during the drafting period.

But what reforms to choose?

[89] Meaning unclear.

In one interview, Yang explained the strategies for the newly created top coordinating group to carry out the planned reforms.[90] The *Special Task Small Group in Deepening Economic System Reform and Ecologic Civilization System Reform* followed two principles, including "from easy to difficult" (xian yi hou nan, 先易后难） and "use the small to drive big" (yi xiao dai da, 以小带大) (Xinhua March 7, 2014).

According to Yang, the catchword *Easy to Difficult* refers to the strategy of starting actions from those issues with *more consensus*, not those that need *the least efforts*. And those lacking consensuses should be dealt with first through investigations, discussions, experiments and pilot projects and reach some common grounds in the understanding of the reform (Xinhua News Agency 2014). Applying these guidance and strategies, Yang directed that in 2014's ecological civilization institutional construction, the *special task small group* carry out national park system reform pilot projects (*tizhi gaige shidian*, 体制改革试点). This would put the national park system reform squarely under the category of reform decisions that are "difficult", i.e. *lacking consensus*, from the decision makers' own point of view. "Using the small to pull the big", on the other hand, is the tactic to take the reform measures that are seemingly less drastic but could give leverage for or drive up the full-blown reform (Xinhua March 7, 2014).

The guiding principles and strategies together give a good sense of the decision rationales: the Party leaders needed to appear bold and brave in taking reform measures on

[90] The *Special Task Small Group in Deepening Economic System Reform and Ecologic Civilization System Reform*, one of the six special task small groups created under the Central Party Small Leading Group for Deepening Reform, in 2014. It is supposed to coordinate and oversee reform-related policies with NDRC implementing them.

policy issues that are deemed overdue and urgent by the system (so they took on seemingly ambitious reform tasks to cover the conservation area problem), but they also preferred not to stir up the hornet's nest and lose control when there was no consensus on policy solutions (so they use a vague policy to allow it to start with small-scale experiments, not a full-blown reform) .

Why National Parks Per Se?

While the need to address all concerning issues explains why the party decided to take a reform in conservation, what explains the specific and unexpected choice for a national park system reform? Could it be completely random? Again, we can find clues from the drafting official's statement.

Yang told the reporter that when they started drafting the Decisions for the 3rd plenum, they listed all the problems that needed to be addressed and drafted policy solutions (reform) correspondingly, one by one (Xinhua March 7, 2014). The fact that the national park system was brought into the picture as a reform solution indicates that the problems in the conservation system were on the minds of the decision makers and they felt the need to do something about them, especially when their task was to build a great reformer's image for the new party leader. The drafting crew cannot afford not bringing up the issue without risking the accusation of not doing their jobs. However, the drafting process took place in 2013, the time when the legislative battle over Natural Heritage Conservation Law (NHCL) was at its peak, with a showdown in the annual Two Sessions drama right in front of their noses. To pursue any of

the two ready policy solutions in their existing forms would only stoke the fire and provoke immediate debates and pushback.

What is the alternative, then? A brand new solution that has a world reputation, that is not directly associated with any stakeholders, that has undefined objectives to say nothing of how to work them out in the Chinese context, that could be scaled up or scaled down depending on the political need, and that needs time for consultation and experiment due to its rawness, does seem to be a better choice to the party bureaucrats who wanted to appear to be visionary and sincere reformers while avoiding getting entangled in a head-on collision with bureaucracies and a mobilized civil society at the outset. As a sort of glorified placeholder, National Parks seem to be an ideal choice.

To be sure, national parks were not a new concept in China at the time of the 18th party congress. National Parks as a conservation model was experimented on at the local provincial level for a few years before 2013 and gained some recognition and media attention. However, despite the retroactive attribution of the 2013 reform decision to the local pilot national parks led by an international NGO, The Nature Conservancy (TNC) in Yunnan province, my field research and interviews indicate the national park system reform as a remedy of its conservation system did not come from a push from the Yunnan park community. The core Yunnan park policy community were kept at a distance when the expert deliberation initially set off for the national park system reform, even though they got on board soon after. If they were behind the initial reform decision, this shouldn't have been the case. Before moving on to the analysis of the return of the PA epistemic community, I will give an overview of the Yunnan and some other local national park experiments prior to the 2013 reform, provide evidence on the

nature of their connections to the national NP reform, and draw out the impact of the local park expert network on the return of protected area reform agenda.

Controversial local experiments in Yunnan Province Prior to the National Park System Reform

National parks did not exist in China half a century ago although the Republican China (ROC) planned to set up some national parks in various localities. China's system of Scenic Areas was supposedly set up with the American model of national parks in mind.[91] However, the have become the ultimate nature- and culture-based tourism development venues. Some claim that Forest Parks meet the IUCN standard of protected areas category II and should be deemed China's National Parks (Wang et al. 2012). However, the only reputable and recognized efforts to create national parks started in Yunnan province, particularly its Northwest area, under the efforts of one of the biggest international conservation organizations, The Nature Conservancy (TNC) (Litzinger 2004; Ma 2013; Zinda 2014; Yang 2016).

Remotely attributed to a Bangkok business man and his hired geographer researcher who was a TNC member, TNC came to China in 1998 and started working with the Yunnan government for an ambitious conservation project called the *Yunnan Great Rivers Projects*, or sometimes as the *Northwest Yunnan Great Rivers National Parks* (滇西北大河流域国家公园) in Chinese (Zinda 2014; Yang 2016; Niu 2018). Its aim was to demonstrate a protected areas practice that conserves the biodiversity and diverse cultural heritages while opening up

[91] The English logo of the Scenic Areas is National Parks.

opportunities of sustainable development for local communities (Zinda 2014; Northwest Ecotourism[92]). This project was elaborated into an action plan for conservation and development of northwest Yunnan, aiming to convert a large tract of areas, eight times larger than Yellowstone National park, as a special conservation zone.

Despite TNC's guiding principles in creating professionalized conservation and community co-management through participatory decision making in its envisioned national parks model, what ultimately attracted local governments' support was the revenue generating ability of the new park model and the prospect of economic development. Nevertheless, TNC and its local partners were able to swing the provincial party leaders to green light their plans for a national park. Under TNC's efforts, in 2006 Diqing prefectural government opened the Pudacuo National Park in the Bita-lake, 20 kilometers away from the county seat of Shangri-La, for its easy accessibility for mass tourism. The park was officially opened by the provincial government in 2007, and with the SFA's approval, it claimed to be the first national park in China. Pudacuo's model was soon replicated in Yunnan's Meli National Park.

Seeing Pudacuo's quick commercial success, Yunnan local governments scrambled to open up new national parks. The State Forestry Adminstration (SFA) designated Yunnan province as the Pilot National Park province in 2008, allowing it to experiment with the new conservation/tourism model. This trend was picked up by other ministries too, in a gold rush fashion. In the same year, the Ministry of Environmental Protection (MEP) and State Tourism Administration (STA) approved their own pilot national park site, Tangwanghe National Park in

[92] "云南大河流域项目"。http://www.northwestyunnan.com/chinese/project.htm.

Heilongjiang province. As of late 2011, there were already 8 national parks approved by the Yunnan provincial government (Tang FL2014).

Pudacuo's national park model was controversial, however. It did make a notable contribution to a new model for conservation, in which the development of a mere 2.3% of protected areas led to the improvement of conservation in 97.7% of the whole park, as supporters of Pudacuo National Park relentlessly claimed (Tang FL 2011). In its original vision, the national park was only intended to solve some problems of the nature reserve system by filling up the gaps left out by Nature Reserves and opening up areas to tourism, but not to replace Nature Reserves (Fritz 2009; Zinda 2014). However, Pudacuo was established in the exact site of a site of a provincial level nature reserve. And it turned out that the tourism company was able to run the whole park while the national park administration could barely operate for conservation due to the lack of promised institutional and financial support. Despite great efforts in incorporating the cultural meaning of local Tibetan communities (as the selected ethnic community among a few) into the conservation scheme, the originally intended co-management and active involvement of local communities in decision making were not embraced in the park's operations.

TNC reduced its involvement in the national park site construction in Yunnan after 2008. Since then, Yunnan's provincial Forestry Agency has provided strong technical support in coming up with regulations on national parks and become one of the top players in running the national park projects in Yunnan. With national park reforms going into the action stage in 2014, Beijing announced that the non-central government-sanctioned local national parks were invalid and would be "cleaned up", meaning that they won't be able to carry the official

National Park title anymore. The exception was made for the two Ministry-sanctioned pilot parks. Pudacuo National Park was chosen as one of the early 9 sites that got on the NDRC list for pilot national park projects in 2015. Tangwanghe National Park in Heilongjiang province was originally on the list but got dropped off and replaced by the much larger Hunchun Armur Tiger and Armur Leopard National Park in Northeast region.

Yunnan Park Experiments and the National Park System Reform Decisions: Connections?

Despite great fanfare for its path breaking experiments, local-level National Parks in Yunnan are controversial. The leading international NGO had a difficult time claiming success of its pilot park sites before it left the scene in 2009. The Pudacuo national park was also often characterized as a failed experiment model of national parks in policy circles. Experts I interviewed generally denied that the Yunnan national park network pushed the agenda to the 18th Party Congress. Communications with NDRC officials in early 2017 confirmed the same.

The situation changed after 2015 when the American think tank, the Paulson Institute signed a three-year-term agreement with the NDRC to cooperate in exploring the national park system reform. With the former TNC representative, Henry Paulson's local associate and the representative of Paulson Institute, Rose Niu present at all meetings of the NDRC national park events, TNC's earlier efforts in experimenting with national parks were not only highly praised but also given credit for the decision for national park system reform. However, there was not any credible evidence or media report that could link the two sides of the decision-making in person. Out of the four to five senior TNC or former TNC staff I interviewed, no one confirmed the link. I was not able to schedule a face-to-face interview with Rose Niu, but even in a speech

at a meeting I attended in 2018, she could not specify how the TNC experiments affected the national park system reform decision while claiming the connections in general terms.

Yunnan park experience and Epistemic Community

Despite no direct connection to the National Park System reform decision, the Yunnan park experiments helped to spread the idea of national parks, and were the first to attempt to organize a conservation model to balance conservation and use of natural resources, especially when compared to existing legal and administrative mechanisms such as the Nature Reserves and Scenic Areas in China (Ma 2013). Their national park models are deeply entangled with the international protected areas standards and practices. Not surprisingly, the experiments generated epistemic community members who were both strong advocates of protected areas system and well connected to the bureaucratic decision makers through professional contacts in planning.

The local park experiments also fostered a great number of technical experts and civil society activists in national park and conservation areas management. TNC is known to be good at surveying and planning. Its projects in the Great Rivers and national parks involved large scale surveys and planning activities. This not only helped to brings technical planning experts to the forefront of government decision making interface, but also connected the local park experiments to the planning experts and bureaucrats in Beijing. At least two sets of actors in planning came to the forefront as a result and became key epistemic community figures. Dr. Yang Rui as the planning experts in Tsinghua University was connected to the National Park experiments in Yunnan from the start and soon rose to the top expert position in the central-

level National Park reform. He jointly founded the Institute of National Parks with NDRC (2018) and became the founding leader of the institute. Dr. Tang, Fanglin was the key technocrat in designing the technical standards of national park for SFA and Yunnan provincial government. Dr. Tang Xiaoping from the SFA was involved in the similar ways. Both Tang Fanglin and Tang Xiaoping became vocal protected area proponents once the national park reform commenced. Their roles in bringing back the protected area reform while the national park system reform was unfolding will be elaborated in the next section about the reform implementation.

Rose Niu, a local Naxi ethnic woman and the China representative of TNC during 1998 to 2008 was the sole figure representing TNC's conservation institutional endeavor in Yunnan. She retired to the U.S until 2014 when Henry Paulson, once TNC's board member, recruited her back to China, for the cooperation of his non-profit organization, the Paulson Institute with NDRC on National Park reform. She is not an academic or a technical expert, but she is savvy of China's conservation practice and politics in Yunnan after a long career of working for international environmental NGOs in China.

The PA Epistemic Community and the National Park System Reform Coupling

In conclusion, the epistemic community might not be directly involved in setting the decision agenda of the national park system reform. However, its contestation has generated effects on this coupling process in two ways. First, it prevented the enactment of a major legislation piece that would delay future meaningful reforms for prolonged time period, and kept the attention on the issue high in the problem stream; second, it limited policy options

available for the decision makers and in a way forced them to choose national park reform which could easily connect to the protected area system issue.

The vagueness is the key feature of the NP reform decision. In the Party Congress document, there was no statement about what problems the reform was to address, and no specific policy goals. What the NP system means is unclear to everyone because there is not such a thing as "the national park system" in the world. And how does this system relate to the existing system? Will it need to replace the current system, co-exist as a new category, or integrate a part of the current system? There is no mention of any of these issues in the party document. It turns out that the people involved in implementing the reform ideas needed to figure out the answers to all these questions on their own.

II. Unpacking the National Park System Reform: The Return of the Epistemic Community and the Prevalence of the Protected Areas Ideas

A high-profile yet super vague reform decision to construct a national park system incurred confusion, excitement and anxiety among the policy community. Nevertheless, it had to be carried out. The *Special Task Small Group* in charge of implementing the decisions of the 3rd Plenum soon settled on a target to establish up to a dozen pilot projects of national park system for experiments. In 2015 the State Council presented its plans for the pilot national park systems, and two years later it announced the overall plan for a national park system reform. In a surprising move in 2018, Beijing created its own National Park Agency while completely restructuring its natural resources administrative profiles. By September 2020, seven pilot

national parks have established their own administrations and all pilot parks have been working on integrating administrative functions, clarifying land ownership and use rights, conducting surveys and setting technical standards and regulations (Potatso 2020).[93]

A surprising wining idea in this reform turns out to be the protected area system. In the 2018 State Council administrative reform, major conservation area systems were removed from their resource-based ministerial masters and put in the hands of the newly created Ministry of Natural Resources (MNR), and under the direct administration of NPA. China also aims to complete the construction of a protected area system with national parks as the main component by 2030 (Tang in Liu 2019).

How did this happen? There was not any mandate about protected areas in the initial decisions of the national park reforms, and had there not also just been a recent legislative logjam over this same issue? I argue that the continued advocacy of the epistemic community under an unprecedentedly high political salience contributed to the prevalence of the protected area system in this reform process. In this section I will demonstrate how the changes brought by the political opening affected the incentive structure of the decision-making bureaucrats in interaction with the epistemic community. Once entering the implementation stage of this ambivalent reform, a set of more technical line planning bureaucrats were put in charge; they were driven to seek legitimacy in scientific authority and interest neutrality by heightened political attention; and additionally, their career network empowered planning experts who were also part of the protected area epistemic community in the consultation process.

[93] "Hotpoint". http://www.pdcuo.com/dongtai/show-247.html.

I. Planning Bureaucrats and Epistemic Community at the Center

Bureaucrats and their Incentives under the Heightened Political Salience

As elaborated before, the political opening of Xi Jinping's inauguration brought the salience of conservation area issues to new heights. This salience continued to rise for the national park system reform when it unfolded. Needless to say, this was a political mandate with the highest endorsement in the party standard. To a degree, it is president Xi's personal political reputation at the stake. In the party's technocratic language, the national park system reform is the Grasping Handle (zhua shou, 抓手) of ecological civilization construction, highlighting its accomplishment; in more common language this is a political performance project (zhengji gongcheng, 政绩工程) that can be used to show Xi's credits to the public eye, in a tangible fashion and for future generations. This gave bureaucrats in charge of implementing this policy both mandates for pushing it through and cautions for not screwing it up. One top expert interviewee commented: *the ministries were in fierce arguments over how to initiate pilot park projects in 2014,* ***but it had to be done*** (interview august 1 2016). Besides, this reform mandate was extremely vague, and the idea was novel. For decision makers who were not experts in this domain themselves, they faced more pressure to avoid the pitfalls of previous reformers, and to learn what were the right things to do. There would be a heightened need to seek advice from those who had the expertise and authority, i.e., the experts. These dynamics were manifested on the new set of bureaucrats entering the scene.

Line Planning Bureaucrats at the Central State

2014 set off the first reform steps and was deemed the "first year" of China's national park history.[94] Once the reform decision was announced, the policy moves into another stage, expected to be substantiated and produce concrete and tangible results. The national park system reform was originally assigned to the Division of the Agriculture and Economy of the National Development and Reform Commission (NDRC). Soon it was taken over by another NDRC department, the Division of Social Development (DSD), whose involvement in the NP reform seems to be out of its own initiatives.

Responsible for "proposing and coordinating the implementation of social development strategy, planning and policies" (NDRC), the DSD were known for their recent accomplishments in engineering and overseeing the massive national health care system reform.[95] The Office of Life Quality under the Division of Social Development (DSD) was assigned to implementing the national park reform. The Division of Social Development (and the Office of Life Quality) used to be in charge of drafting the 11th *Five-year Plan for Cultural and Natural Heritage Sites Conservation* (2007-2012) in 2006, likely due to their responsibilities in overseeing the policies in the cultural development and tourism sectors. And this experience partly made the units most qualified and experienced for, and probably more interested in, the national park reform among the NDRC bureaucrats/planners, and also linked them closely to the group of landscape

[94] In early 2014, the *Special Task Small Group in Economic System and Ecological Civilization System Reform Work* (经改专项小组) was formed under the *Central Party Small Leading Group for Deepening Reforms*, and the reform tasks listed under its jurisdiction in the 18th Party Congress decision were divided and assigned to different government departments.

[95] Their mighty power was also manifested by a series of corruption scandal cases of their staff right before the NP reform.

and ecology planning experts at Tsinghua University in Beijing who had helped them draft the national Five-year plan for heritage conservation in mid-2000s.[96] The hands-on officials in charge of the reform task was Peng, Fuwei （彭福伟）, Deputy Director of the Division of Social Development (DSD). Peng and the deputy office director of Life Quality Yuan, Hao （袁灏）both are familiar with policies related to tourism economy due to their education backgrounds and career experience. [97]

Unlike the Deputy Office Director Yang, Weimin as the senior official at the top decision level, the Division of Social Development (DSD) officials in charge of carrying out the reform task were much less visible in public eyes and primarily line bureaucrats, in their early or mid-career tracks. They were in their 20s, 30s, and 40s, with master's education in economics or public administration related fields from top universities. The fact that they were the selected few working in the most powerful decision organ of the central government, often referred to as the Mini State Council, indicates their competitiveness, ambition and demonstrated intellectual capacity and people skills at least in their school years. And their activeness in getting involved in the reform indicated that they were not going to passively let things work out on their own course.

[96] The Deputy Director of NDRC, Wang Xiaotao （王晓涛）was the group leader of the small group on the national park system reform in NDRC.

[97] Neither Peng nor Yuan was involved in the drafting of the five-year plan for cultural and natural heritage conservation in 2005-2007. Peng was recently transferred to the Division and Yuan joined the NDRC in 2010 after graduation from Renmin University. There were the 12th and 13th five-year plans for cultural and heritage conservation as well, but only regarding the facility construction, and the range of the heritage scaled back, with nature reserves removed from the list originally included in the 11th Five-year heritage conservation plan.

However, whatever they planned to do, it had to be fully justified, both viable and bold enough, within the limits of their means and in line with the overall top-level design for reforms. Compared to senior officials, these line bureaucrats have less wiggle room and spinning power to deflect criticism when an assigned task fails in the spotlight. And none of these officials were experts of conservation affairs. They would first need to fathom what the commonly accepted national park concepts are, how they are practiced in the world, what problems they can possible address, what can be done in the pilot projects and what the optimal reform goals and strategies are for them. And all of these have to satisfy their superiors and look good in their peers' eyes.

As the epistemic community literature claims, the epistemic community is needed for the interpretation of the issues at hand for even basic tasks such as discerning what the decision makers' interests are (Haas 1992). This especially seems to be the case for the planning bureaucrats in this reform. They reached out and enlisted help from the outset.

The Comeback of the Epistemic Community: Old and New

Since 2014, national park and national park system reform has become the most popular subject in town among the conservation policy communities. While NDRC reached out for inputs and tested water with local sites, different ministries, major leading research institutes as well as NGOs and INGOs organized forums and conferences to brainstorm on the most basic ideas of the reform and tried to reach some consensus. The epistemic community rose out of these forums and symposiums.

From late 2013 to 2014, there were at least five to six influential forums, primarily in Beijing but some in the capital city of Yunnan province, Kunming as well. These both big- and small-scale forums were attended by high-level ministry officials, top experts from major think tanks and research institutes, INGOs and NGOs, conservation practitioners. Furthermore, while SFA held a couple of symposiums with mainly forestry officials and practitioners involved in forestry-controlled nature reserves and national parks (in Yunnan)[98], the other four main forums in 2014 seemed to try to be as diverse and inclusive as possible in terms of ministerial, academic and NGO presence. And this seems to have become the norm for the consultative symposiums and conferences in the following years as well. NDRC bureaucrats tried to stay as interest neutral as possible, probably trying not to be accused of favoritism and avoiding the pitfalls of the NPC predecessors in their futile legislative attempts. They leaned heavily on the technocratic experts instead of departmental bureaucrats in consultation.

To be clear, however, the diversity and inclusiveness only applies to the elitists, and does not involve the general public or the local communities who are affected by the policy. As one interviewee at an international organization boldly stated: this reform is a matter of top-level institutional design (dingceng sheji, 顶层设计) and there is no perception of how the public is even capable of participating in it (Interview October 2015).

With the nature conservation legislation off the NPC agenda, where was the recently emerged and highly mobilized PA epistemic community? As the top conservationists and policy

[98] In December 2014, there was a national park workshop held in Yunnan by SFA and Yunnan local governments, as a series of their annual training programs (SFA 2016). This was not a national consultative symposium. Tang Fanglin was the keynote speaker.

experts of the country, they were still present in the consultative meetings. Xie, Yan and her associates were speakers at these meetings, and protected areas were brought up as a necessary reform target **at every one of the major five symposiums** of 2014 listed in table 6.1. Xie, Yan was not the primary leading experts in NDRC's consultation process or SFA hosted meetings (her proposed PA legislation was strongly opposed by SFA in 2006), but she was in the top consultant circle and many leading scholars and experts involved shared her ideas about a unified protected area system in China.

Taking the two April national parks symposiums for examples. During the April 27 Tsinghua meeting, Xie spoke as one of the six speakers and Tsinghua scholar Yang Rui also spoke up on the necessity of restructuring the national PA system as a precondition for national park construction (Xu & Liao 2014). In the meeting jointly held by State Forestry Administration(SFA), IUCN and Yunnan provincial government on April 28, 2014 in Kunmming, six top experts from different institutes gave speeches.[99] One shockingly consistent and bold message from these six experts was that national parks were a category of IUCN protected areas, category II to be exact. And all six stated that the objective and priority of a national park is to conserve nature, not for tourist or economic development. And they were in a consensus that ***NP reform was an opportunity that should be firmly grasped for an overall restructuring of China's protected areas***. Lv Zhi from Beijing University directly brought up the demand for

[99] Their talks were compiled and published in the top Chinese academic journal, *Biodiversity Science*. The six experts are the botanist and biodiversity expert Ma, Keping （马克平）at CAS, IUCN China representative, Zhu, Chunquan (朱春全), Zoologist, reknown Giant Panda expert and conservation NGO, Shanshui Conservation (shanshui ziran, 山水自然) founder, Lv, Zhi (吕植) from PKU, biodiversity expert and the dean of School of Nature Reserves at BFU, Lei, Guangchun（雷光春）, botanist and ecologist Ouyang Zhiyun （欧阳志云）from CAS, as well as nature reserve expert at SFA Institute of Forestry Planning and Research, Tang Xiaoping （唐小平）.

PA legislation but her proposals for PA reform went even beyond Xie, Yan's in terms of thoroughness. Professor Lv called for a legislative, administrative and management streamlining of PAs, and proposed to combine all relevant departments in charge of PAs together under one agency. It turned out that Xie, Yan's proposal in maintaining the current resource-based ministerial management under the unified coordinating agency and legislation was merely a bottom-line position compared to these six experts (see Ma 2014; Lv 2014; Zhu 2014; Lei et al. 2014; Ouyang et al 2014; Tang 2014). The epistemic community was holding firm to its consensual vision of an ideal conservation system.

A new trend emerged in the composition of the PA epistemic community in this process, and that is **in the increased presence and leadership roles of experts in planning**. As aforementioned, planning and standardizing (setting technical standards, applying for titles and assessing and authorizing according to the standards) have increasingly become central governing techniques (Heilmann & Melton, 2013), and planning looms large in environmental governance. The author of the Communique of the 3rd Plenum, Yang Weimin is a senior planner, spending many years developing China's development zoning, particularly implementing the main function zone planning.[100] When announced in the 3rd plenum decision of the 18th party congress, the NP reform was associated with the item on main function zone planning and the Eco Red Line zoning. The line bureaucrats at the Division of Social

[100] He promoted the Main Functioning Zone Planning as the most fundamental planning basis for national economic planning, and was behind the push for All-in-One planning (duo gui he yi, 多規合一) as the reform goal, aiming to integrate all existing overlapping planning schemes from different ministries and governments into one overall planning, *the main functional zone planning*. The main functional zone planning has a strong ecological content, designating a large portion of the terrestrial land as development-limited zone or development-prohibited zone, for ecological conservation purposes.

Development (DSD) are planners too.[101] It is not surprising that the planning experts were put at the front row of the consultation for the National Park (NP) reforms.

And fortunately, the few most trusted and influential planning experts are either the believers of a protected areas system or familiar with it and were not reluctant to follow the idea once the tone was set for pursing the protected area system reform. Yang, Rui (杨锐) at Tsinghua University and Tang, Fanglin （唐芳林）at the SFA Kunming Institute of Survey and Design, and to a lesser degree Tang, Xiaoping （唐小平）from SFA Institute of Forestry Survey and Research emerged in the national park reform consultative process as the leading academic and practicing experts.

Newly Emerged Epistemic Community Members: Planning Experts

Professor *Yang, Rui*, Tsinghua University

Yang Rui was one of the earliest academics to focus on national parks and protected area systems and their applicability to China. His PHD dissertation was titled *Improving the National Park and Protected Area System of China: Theories and Practice* (Yang 2003). He was a visiting scholar to the University of Montana, researching on this topic during his dissertation years.[102] He was also involved in TNC's first attempted and most influential conservation project in China, the Northwestern Yunnan Great Rivers National Park project. Yang claimed that he recommended constructing a national parks and protected area system of the Great Rivers Basin, instead of a simple and homogenous national park system to then TNC executive, Ed

[101] The NDRC officials in charge of NP reformers are planners too. One of their linkages with the Tsinghua scholars was their cooperation for drafting the five-year plan for cultural and natural heritage conservation.
[102] This dissertation won him a best doctoral dissertation of Tsinghua University award for that year.

Norton, and director Rose Niu in 1998 and TNC accepted his advice (Yang 2016, Preface; Interview Nov. 2018). During 1998 and 2004 he was involved in and in charge of a few planning projects for national park and protected areas in Yunnan province. The supposed first national park in China, Pudacuo National Park, was influenced by his ideas, according to Yang's personal account. In 2005, Yang was tapped for the national five-year plan for cultural and natural heritage conservation drafting. He claimed that because the national park concept was too novel and controversial in the early 2000s, he had to replace it with "natural and cultural heritage" in academic publications. He also explained that he set the national park ideas aside for over a decade after his PhD dissertation partly because of the fear that it would litter the fragmented conservation system with just one additional category, causing more confusion and challenges without fully realizing the potential of the national park (and protected area) idea for conservation. The time was not ripe (interview Nov 15, 2018). One thing that stands out in the NDRC five-year plan he drafted is how it stated that the heritage should be inclusive of different types of conservation categories (PAs). Yang's planning career overlaps closely with the international NGOs and conservationist communities working on protected areas in China. And he has been consistent in his messages about how national parks should be part of the overall protected area system, and heritage (nature and culture) conservation should be the number one priority in national park construction tenets, among other things.

Since the School of Architecture of Tsinghua University was tapped as a base for national park reform research and consultation in 2014, Yang, the department head of Landscape Architecture, has become a public advocate of these ideas. In the April Tsinghua symposium and July GEI conference, for example, Yang related these ideas. And he was not

alone in sharing these ideas on those occasions. In the mid-2014, he published an article titled "Suggestions on how to establish China's National park under the system of protected areas", demanding to construct a national park system only after fully and comprehensively sorting out the protected areas administrative system (Yang 2014; Yang 2016, 109). The number one specific suggestion was to restructure the management of the protected areas; the second one was to advance the legislation on national parks and protected areas. Significantly, the suggestions were proposed on behalf of the consensus Yang formed with a few other experts including the domestic NGO, Global Environment Institute (GEI) founder Jin Jiaman, Chinese Academy of Sciences (CAS) expert Wang Yi, Zoologist Lv Zhi, Wildlife Conservation Society (WCS) director Wang Aimin etc. This is Xie Yan's close circle and they are like-minded colleagues.

Similar to Xie Yan, Lv Zhi and other top experts who command research teams, Yang has a research and expert team based in his home department, the Department of Landscape Architecture in Tsinghua University. After four years of close cooperation, NDRC and Yang's department formed a collaborative research institute, the Institute of National Parks at Tsinghua University in late 2018. Since the transfer of NP reform authority from National Development and Reform Commission (NDRC) to the National Forestry and Grassland Administration (NFGA) in 2018, Yang has continued to be hired as top consultant and research project leader by the National Park Administrative Agency (/NFGA).

DR. *Tang, Fanglin*, Kunming Institute of Survey and Design, SFA.

Another influential national park and conservation areas expert emerged through the forestry system venue in the same period. Tang Fanglin (唐芳林) was the Director of the SFA Kunming Institute of Survey and Design, one of the five Survey and Design Institutes owned by SFA. He was trained in forestry and botany and obtained a PhD in ecology. Similar to Yang, Rui at Tsinghua University, Tang's PhD dissertation also focused on the theory and practice of China's national park construction (Tang 2010). His career started with planning for a few major national nature reserves including the biggest national nature reserve, the Tibetan Qiangtang Nature Reserve. Since 2004, he has been primarily focused on national parks construction in Yunnan province. He was involved in the planning of seven national parks in Yunnan, compiled the technical standards of national park construction in Yunnan, and directed the Yunnan provincial development strategy for national parks. His credits in national park work also includes leading the planning project of the first national park in China, the Pudacuo National Park (Kunming Institute 2016). Tang's career track was maximally boosted by the NP reform. Once the reform was announced in 2013, the SFA quickly organized a national workshop, mainly within the forestry system by the end of 2013. Tang was the invited speaker to introduce the national park theory and practice. Since then he has become the designated speaker on the topic for SFA. Tang was also prolific in publishing and since 2014 his productivity has skyrocketed and exclusively focused on national park topics. .[103]

[103] A survey of Tang Fanglin's publications on CNKI produces 117 results, thirty-nine out of forty in recent years (2016- July 2019) are about national parks, sixteen out of twenty-two between Dec 2013 and 2016 are national park themed. Only five out of the rest of his fifty-five publications over the years from 1991 to late 2013 are related to national parks, including his PHD dissertation in 2010. Given that he was the main technical practitioner of the national park movement in Yunnan, the relative rarity of publications on national parks prior to 2013 indicates that national park reform wasn't a hotly pursued national topic until the Central party committee decided on it in late 2013.

Tang was primarily a practicing expert for the Yunnan locally designated national park sites.[104] His earlier writing up until late 2013 advocated national park as a must have category in China's protected areas system, and a remedy to the existing system. He worked on defining the national park concept in China (specifically in Yunnan Province), clarifying its primary management objective as giving conservation the priority vis-a-vis absolute protection in nature reserve definition, or recreation and tourism development in scenic areas. [105]

Unlike Yang, Tang was not a visionary reformer of the whole PA system until the opportunity for doing so opened on its own; his previous efforts were focused more practically on how to technically define the bureaucratic and legal status of Yunnan's national parks in the existing system. Nevertheless, his national park expertise was deeply connected to a protected area system background, and his technical advice based on solid understanding of national parks in Yunnan evolved quickly. He soon became a major voice in the reform discourse on protected areas.

To be sure, these few o are not the only members of epistemic community that carried the weight in mainstreaming PA ideas during the reform process. As the above cases show, many experts who spoke out on the PA reform with or without them were veteran epistemic community members from the previous legislative debates.

[104] Tang's ideas about national parks went through phases as well. He placed national parks firmly in the IUCN protected areas categories and used the Chinese translation *baohudi* (保护地) for protected areas up until late 2013, the same way that Xie Yan has promoted it. However, since late 2013, he switched to *baohuqu* (保护区) when referring to protected areas until mid to late 2015, and then flipped back to *baohudi* （保护地）.

[105] This, however, was turned into a somewhat departmental stance when it was stated as a dichotomy between national parks as a conservation first category and national parks as a cultural and economic development category.

Table 6.1: First Year of National Park System Reform: Experts Consultative Meetings, 2014. *

Dates	Sponsoring Institutes and Ministries	Title of the Conference	Reported Participants	Location
Nov. 2013	Division of Wildlife Protection, SFA	To Fully Realize the Spirit of the 3rd Plenum of the 18th Party Congress: Symposium on National Parks Policies.	SFA officials and Local Wildlife Protection division officers. Tang, Fanglin as the speaker.	Beijing
March 27, 2014	Society of Landscape and Gardens; School of Architecture, Tsinghua University	National Parks in My Eyes.	Officials of MOC and experts on SAs, World Heritage and Nature Conservation experts.	Tsinghua University, Beijing
March 28, 2014	Sponsored by SFA, the Yunnan provincial government and IUCN; Hosted by Yunnan Provincial Forestry Bureau and Southwest Forestry Institute of Design and Survey.	Symposium on National Park Construction.	CAS, PKU, BFU. Yunnan Officials.	Kunming, Yunnan.
July 8-9, 2014	GEI, Shanshui, and WCS	Symposium on Eco-Security Ensuring System (with the fifth sub-subgroup discussing national parks).	Ministries and local government officials. Local PA representatives; Universities and research Institutes, NGOs and INGOs.	Beijing
Sept. 21. 2014	College of Urban and Environmental Science, Beijing University; Chinese Society of Ecology; Chinese Association of Scenic Areas; College of Gardening, Beijing Forestry University; College of Nature Reserves, Beijing Forestry University; Research Institute of Cultural and Tourism Planning, Research Institute of Urban Planning and Design of China; Pangoal Institute.	Advanced Symposium on Construction Ideas of National Parks.	All relevant ministries (NDRC present); Local PA representatives; Research Institutes.	Beijing University, Beijing.

* Compiled from multiples sources by author.

II. Reform Unfolding: Unpacking the Interactive Process of Decision Making

Following the *empty coupling*, the national park reform unfolded in a dynamic fashion characterized by cycles of close consultation and intense negotiations followed by bureaucratic decisions in every stage. With the expert community, particularly the epistemic community's strong advocacy, the protected area system reform was brought into the gradually substantiated national park reform agendas, initially with great caution. In the beginning of 2015, the State Council planned to start to tackle the protected areas system issue within the pilot national park sites; the Council became bolder in 2017 when it began to take the protected areas system more seriously and planned to create a national PA system revolving around national parks. This all changed when a full-blown reform of PA administration took place in 2018. In just a few short years after the 3rd plenum in 2013, China literarily created a national PA agency that brought together almost all previous conservation area systems under its control, at least at the level of the central government.

This process is characterized by interactive processes of bureaucratic bargaining and expert consultation. This model mixes bargaining and deliberation, in stark contrast to a predecision in Multiple Stream Framework (MSF) when the two are separated into different processes (Kingdon 1984). A PRC policy tradition is that, once announced, the central policy directives are to be studied, discussed, and interpreted, repeatedly at each level down in the bureaucratic hierarchy in its implementation. The logic is two folded: on the one hand, the central policy tenets and intentions can be propagated through the top-down studying process (Lv 2013; Stockman & Gallagher 2011); on the other hand, the central policy is often purposefully written

in vague language so it allows flexibility when getting substantiated for implementation (Stern & O'Brien 2012; Zhan 2017; Ang 2019), as bargaining is the key for such a fragmented system to reach some consensus (Lieberthal & Oskenberg 1988; Lieberthal & Lampton 1992; Mertha 2007, 2009). One often overlooked aspect in both the bargaining and deliberation process is the technological know-how of scientists and policy experts, which plays an increasingly key role during this formative process of policy implementation. The unfolding National park system reform demonstrates such a mixed process for the epistemic community to foster social learning. And this is particularly manifested in the initial years of the national park system reform.

The following section unpacks the processes leading to the PA system victory. It documents the continued interaction between the bureaucratic decision makers and the epistemic community, as well as members of an enlarged policy community. A close reading of key party and NDRC documents regarding the reform reveals the milestones in the evolution of the reform goals related to protected areas in the first part.

2014-2015: Initial Goal Setting

2014 was an important year in the history of national park system reform—the so-called first year of Chinese National Parks. The reform took on a more concrete shape through bureaucratic bargaining and expert consultation during that year.

This is a case even the top experts had no clues of what was going on in the beginning of the reform. As the first major four or five public forums in 2014 demonstrated (Table 1), nothing was set in stone and almost everything was up to interpretation and debates when the

initial “implementation” took off in early 2014. During the process, the NDRC national park reform small group, mainly DSD, used the expert consultation forums to gauge expert opinions on how national parks can be created in relation to an existing conservation system. The previous mobilization for PA legislation and the leading experts’ consensual recommendation for an overhaul of the PA management system as a precondition for a national park system (see previous section) pushed the NDRC to confront the elephant in the room, the system of conservation.

In early 2015, NDRC emerged out of a year of intense deliberation and negotiation and put forth a joint statement by thirteen ministries and committees on the plan for pilot projects in creating a national park system (Table 2). [106] The plan was cautious and contained, setting the limited goals in only experimenting with *national park systems* rather than *national parks*, so the end products of these sites would not necessarily have to be successful national parks. And their take on the protected areas was a mixed one: it officially used the PA (*baohudi*) concept but limited its own role as sorting them out within the pilot park system.

This conservative goal setting indicates the level of challenges NDRC reformers were facing. According to one top think tank scholar, the thirteen ministries were still fighting dogs and cats at the NDRC meetings even by the end of 2014, while NP reform was designated as one of the twelve core tasks for the deepening reforms in that year (Su 2016). In the Pilot Plan, NDRC announced the nine sites as the first batch of national park system reform pilot projects.

[106] NDRC issued a joint document with other 13 ministries, regarding printing and distributing notifications for creating national park system pilot project, in Jan. 2015. The file number is Number 171 (2015) Social Department of NDRC. The document was issued with an attachment, Plans for Pilot Projects of National Park System. See Jia Guohua 2018.

However, even the site choice took a long time to be set and was not without resistance and compromise. Allegedly some of the original sites favored by NDRC, the highly popular and resources rich ones with international reputations such as Jiuzhaigou in Sichuan and Zhangjiajie in Hunan, refused to join the pilot projects and some of the chosen sites were unknown to the public because their provincial governments offered them to NDRC as substitutes for their popular parks (interview March 2018). These popular protected areas generate huge revenue for the local government and are the GDP pillar of their areas. The prospect of giving up income from the admission fees and other income is unacceptable to the current administrative authorities. This is also true for ministries who wanted to protect their assets. For some chosen sites, the local government who agreed to sign up for the pilot experiment was allegedly summoned by the ministry who oversaw the said protected area and criticized for giving up their assets (Su, 2016; Shennongjia National Park 2017).

As to what the central government expected to achieve through its national park reform, it was still not clear even in the most important 2015 party document. In September 2015, in a central party document, the *Overall Plans for the system reform of the ecological civilization*, the party continued to talk about the objective of the reform as "creating national park system…reforming the institutions that separately set up nature reserves, scenic areas, cultural and natural heritages, forest parks, geological parks, etc. by different ministries. Restructuring these **protected areas** in terms of their functions…" (Xinhua News Agency, Sept 2015). The protected area concept was confirmed again, but the document could not clearly spell out how the protected area restructuring was related to the national park system. While continuing to be ambivalent and frustrating in the party policy guidelines, the central

government seemed to plan to achieve something bigger and broader than its similarly ambivalent goals of national park system reform.

2017: Small Steps in National Parks, Big Strides for Protected Area Reforms

NDRC did not become confident in spelling out what it could possibly accomplish under its current mandate for NP reform until September 2017 when it announced its "overall plan for the national park system reform." "National parks are one of the most important categories of **the protected areas** in the country." And one parallel reform objective was "optimizing the **protected area system**. Reform the institutions that separately set up nature reserves, scenic areas, cultural and natural heritages, geological parks, forest parks, etc..... Reform step by step the practice of setting up **protected areas** in terms of resource types…. Construct the **protected area system** represented by the national parks…." (Xinhua Sept 2017). The NP reform needed to construct a protected area system that was represented by the national parks. The key words were finally spelled out and connected in meaningful fashion.

This was soon echoed in the decision in the 19th Party Congress report by Xi, Jinping, but with a subtle change in language to a bolder goal in "developing a protected areas system composed mainly of national parks." (Xi, Oct 2017). To this point, the protected areas that were criticized as too foreign in concept and too confusing in its Chinese translation just a decade ago were fully embraced by the central party official document and became a major reform policy goal of NP reforms.

Xie Yan was openly content about the overall reform plan for the NR system reform. In an interview, she said she was "excited" by the government's proposal, which was "very

suitable for China's circumstances." And Xie claimed that the key aspects of the PA legislation she and colleagues promoted in 2012-2013 were to be found in the new party proposal, such as creating a scientifically classified PA system with strong protections and centralized management, and greater state investment (Liu 2017).[107]

Continued Interaction: Epistemic Community, Expert Network, and Broad Civil Society Participation

During the years leading to the 2017 Overall Plan for NP reforms, NDRC continued to host regular consultations with academic, ministries and practitioners' communities. Research institutes, universities and think tanks started to pick up the topic of national parks.

NDRC set up its research projects and hosted large scale symposiums and workshops at least once a year.[108] Workshops are also hosted by different institutes for research projects on NPs sponsored by national social science funding as well as other types of governmental funding.[109] In addition, consultation meetings at the pilot project sites take place regularly.

NDRC also institutionalized some of international consultation channels, including signing an agreement with the U.S National Park Service (Sept 2015), an MOU with Canadian Ministry of Environment, Climate Change and National Park Service (Sept 2016), as well as a framework agreement with the newly formed Paulson Institute for a three-year cooperation on

[107] This is my own English translation from the Chinese version as the original English version was inaccurate in key words.
[108] The consultation meetings took place in Beijing regularly, but Guiyang, the capital city of Guizhou Province has become an important venue because it is where the International Eco Forum, a China-hosted high-level meeting for environmental protection, takes place. Since the 2014 International National Park Forum has become part of the Eco Forum in Guiyang.
[109] Tongji University in Shanghai, for instance, hosted a high-level symposium on national park reform and eco civilization funded by the National Social Science Fund in late 2016.

NP reforms (June 2015). WWF, IUCN, TNC and other international NGOs have also been constantly involved.[110]

CCICED stayed increasingly in the background as its overall influence dwindled drastically, partly due to the draining of international aid, and partly due to the rising domestic conservation sector and funding organizations that overshadowed it. However, the epistemic community CCICED helped to foster has spread at the top level for policy making and on the ground level for conservation practice, and the international connections it provides helped to, among other things, enable the China-Canada cooperation in NP reform. It was in the NDRC officials' minds that CCICED was a venue for resources including funding for its international cooperation at least with the Canadian Park Services (interviews March 2017).

The cooperation between the NDRC and the Paulson Institute is a case example of the shifting patterns in funding. The Paulson Institute was supposed to provide technical support for NDRC, and they successfully brought in a Chinese private charity foundation, He Ren Foundation （河仁基金会）to finance their multiple-year activities including nation-widely bided annual research projects leading to a series of publications on China's National Park reforms (China Environment Publishing Group 2018), international symposiums and workshops, and field research to local sites and abroad. The Paulson Institute chose Wuyishan NP in Fujian province as its trial case.

Domestic NGOs have also started to emerge into the scene and work on NP and PA reforms, mostly in a belated fashion, and increasingly more in recent years. *Shanshui Ziran*

[110] One WWF staff, Dr. Wang Lei, was assigned to work on the NP reform closely under a NDRC project.

founded by zoologist Lv Zhi [111]and *Global Protected Areas Friendship System* (GPAFS) founded by Xie Yan [112] are natural platforms for coalition building and advocacy. Xie Yan also organized and coordinated an expert network for PA law drafting. A spin off of TNC, *Paradise Foundation for Eco Conservation*[113] has become a strong actor in NGO-entrusted protected areas, and it formed an *Alliance of Social Public-Interest Protected Areas,* [114], bringing together 23 public interest organizations and pooling their resources for conservation through socially-managed protected areas (PFI). Xie and Lv are outspoken public intellectuals and top experts in consultation, and their organizations and *Paradise* are involved in local national park or protected area practice and experiments. Through coordination under *Paradise,* many domestic NGOs who lack the conservation expertise or were not primarily focusing on NPs and PAs were able to participate in the policy process. For example, China's first environmental NGO, *Friends of Nature*, was not directly involved in NP reform. In recent years their conservation efforts were directed at public interest lawsuits against species and habitat destruction by local governments and developers (Interview, Nov 2018). Nevertheless, they have still been able to join the PA activities through the *Alliance of Social Public-Interest Protected Areas*.

Some non-governmental organizations cooperate with national park pilots at the local level. A domestic Foundation, *Qiaonv Foundation* [115] signed an agreement with national park service of Sanjiangyuan National Park, Qinghai province (Qiaonv 2018). Unlike the top conservationists and policy experts, there are also some grassroots NGOs who are citizen

[111] Shanshui 山水自然. http://www.shanshui.org/.
[112] 全球保护地友好体系. http://www.baohudi.org/?p=3887.
[113] 桃花源生态保护基金会http://www.pfi.org.cn/.
[114] 社会公益保护地联盟http://www.pfi.org.cn/shgybhdlm.html.
[115] 巧女公益基金会http://www.qnfoundation.org.cn/.

education oriented and involved in the local community level at national park sites. In past couple of years, they have started to show up at the national park consultation meetings. *Last Descents River Expeditions* [116] is an outdoor recreation and education organization. As part of the experiment with the concessions as a business model in NPs, the company was the first to be granted concessions for river rafting business in Sanjiangyuan National Park. The organization leader is an American citizen [117] and he was closely associated with many conservationists and participated in the 2018 NDRC and Tsinghua symposium on national park system reforms.

The increasing consensus in the policy discussions at the top levels around the necessity of protected area system reform and conservation as the number one priority for national parks, etc., however, does not mean there were not any lack of conflicting opinions and/or confusion. Actually, most meetings witnessed the open exchange of opinions, often in strong conflicts with each other.

Many people challenged the ideas about preservation of wildness as a main objective of National Parks, for instance. Should authenticity be the defining feature of China's national parks if the Scenic Areas were to be included into the system? Chinese cultural appreciation of nature is based on a different philosophy from wilderness in American conservation culture and therefore the authenticity issue was up for strong debates. A distinct feature of China's PAs is the number of people living in and off the protected areas. How does a national park deal with that? And how will the future NPs deal with the bustling tourist business already in place at

[116] 漂流中国.http://www.lastdescents.com/cn_ZH/?page_id=17.
[117] Wen Dachuan文大川English name is Travis Winn.

many national park sites? And when NDRC organized a small and closed-door symposium on National Park Legislation in 2017 (Institute of Science and Development, CAS 2017), the idea of enacting a NP law was still under strong criticism for being premature due to many unsettled issues with the newly emerging protected area system, and similar criticisms came from different positions and angles by numerous attendees (Interview Sep 2018).

Some of these questions or issues were intentionally set up as vague or controversial, in a way similar to the Empty Coupling of the NP reform. After the 19th Party congress announcement to construct a protected area system composed mainly of National Parks (Xi 2017), it became extremely puzzling as to what "composed mainly of National Parks" (以国家公园为主体) meant in the policy decisions for a protected area system. And, "Composed mainly of national parks" also replaced the language "represented by the national parks" （以国家公园为代表）in the Overall Plan for National Park System Reform issued one month earlier (Xinhua, Sept 2017). Why was this case? Given that there could only be 60-200 national parks (China News Network，July 11, 2018), how could the over 10,000 PAs be mainly composed of national parks? As a consequence, a lot of intellectual energy was devoted to decoding that particular policy word. The top journal in *Landscape Architecture* organized a special issue on national parks and it even invited the fourteen authors to form an online discussion about the meaning of a protected areas "composed mainly of national parks" (Landscape Architecture May 2019).

III. A Conservation Great Leap Forward: An Overhaul of PA Ministries at the TOP in 2018

It turned out that the overall plan for the national park (NP) reform and the 19th party congress report were only paving ways for even bigger reforms in the protected areas (PA) system. The restructuring of national administrative organs following the 2018 Annual Meeting of National People's Congress (NPC) and Chinese People's Political Consultative Conferences (CPPCC) gave the National Park System reform a massive boost.[118] The reform took a major merging and trimming action against natural resource management and land use planning procedures.[119]

The administrative structure reform of the State Council removed the divided responsibilities of the protection and sustainable use of ecological resources including forestry, grasslands, wetlands, ocean, deserts, wildlife and protected areas from multiple ministries and departments and put them under a newly-created single, unified unit, the National Forestry and Grassland Administration (NFGA). NFGA was put under the newly created Ministry of Natural Resources which replaced the previous Ministry of National Land and Resources (MNLR) and integrated its functions in natural resources management from eight other previous ministries. China also created a brand-new agency, the National Parks Administrative Agency (NPAA), to be

[118] In the 19th party congress, Xi stated the mission to deepening reforms of the party and government organizations, and the 3rd plenum announced the plans for deepening reforms of the party and government organization, approved by the annual two sessions of NPC and CPPCC in March 2018.

[119] The reform tenet was to achieve the goal of making one department in charge of one thing (yi ge bu men fu ze yi jian shi qing, 一个部门负责一件事情). In this round of ministry reshuffling, 8 ministries and 7 vice-ministry level departments were cancelled, with 8 new ministries created.

in charge of all national parks and protected areas. In practice, NFGA and NPAA are the same department with two different titles (一个机构，两块牌子).

Administratively speaking, the national park and protected area reform is a winner-take-all game for the previous SFA, as it took over the newly created NFGA and stuffed NPAA with former SFA officials. Tang, Fanglin from the SFA Kunming Institute of Survey and Design was promoted to Deputy Office Director (Executive) of the National Park Administrative Agency (NPAA), and Tang, Xiaoping from the Institute of Forestry Survey and Planning was appointed as the Deputy Office Director under Tang, Fanglin. The NPAA Office Director [120] is also appointed as the Chief Economist for National Forestry and Grassland Administration (NFGA). After this institutional restructuring, NDRC transferred its power of directly managing the NP reform to NFGA in May 2018. No longer in direct charge of the reform, NDRC now only oversees the directions of the reforms.

To be clear, the triumph of the unified protected area system ideas was not just the victory of ideas versus bureaucratic interest. National park reform in its current form was nested in institutional reforms of natural resources management and terrestrial land use planning in the so-called eco-civilization system reform. Despite the previous calls for a united protected area system, none of the elaborated PA proposals could even imagine the case scenario of today's restructuring. The most vocal PA epistemic leader Xie, Yan, for example, had openly dismissed the possibility of such a radical streamlining when publicizing the PA legislative draft her NGO made in 2013. She claimed,

[120] It is the former Chief Economist from SFA, Zhang, Hongwen,

1) Chinese state has gone through a few rounds of ministry reshuffling in order to reduce redundant organs and streamline administrative institutions. It is less operable to create a brand-new ministry of ecological conservation;
2) Currently protected areas are administered by a dozen of ministries and departments. The reform effort of whole system overhaul would be too high, and the administrative cost would be too great if we wanted to take back all administrative authority from various ministries and departments and put them in the integrated management under one single and independent department. (Xie Feb 2013b)

In the author's personal communication with her, Xie admitted that nobody ever thought it was possible to have a bureaucratic restructuring at this massive of a level when she made her proposal (personal communication, 2019).

A united protected areas system does not necessarily need the radical ministry reshuffling as occurred 2018. Xie Yan's 2013 legislative proposal is a perfect example of how it could be done in the original bureaucratic landscape, by using additional legal and coordinating mechanisms. **Why did it take such a radical and sweeping form?** I argue that the political opening again created an unprecedented opportunity for the adoption of a radical version of PA reform. The political attention changed the alternative selection parameters, particularly the viability, or technical feasibility for a radical PA reform in Kingdon's vocabulary (1984). Specifically, the administrative reshuffling agenda was centralized under Xi and the same sets of senior planning bureaucrats as those responsible for the 3rd Plenum decisions were put in charge. To add to its enabling power, these restructuring decision makers relied on the expert community that overlap with the PA epistemic community.

First, the political opening accompanying Xi's rise gave unprecedented political attention to the eco-civilization institutions reforms. In a move characteristic of Xi's reign, the state council administrative reshuffling of ministries including those controlling the natural resources and land uses that are fundamental to the protected areas governance, centralized the power to the top coordinating Leading Small Group under Xi's direct supervision. The ramifications of this move are significant as it generated some strong enabling factors for a radical PA restructuring reform.

Previously, the ministry reshuffling (大部制改革) involved a different set of state agencies, mainly the State Commission Office for Public Sector Reform （中央编制办公室）, as well as the General Office of NDRC and the Legislative office of the State Council. The drafting team was composed of expert officials. It also involved some different government affiliated research institutes including China National School of Administration (国家行政学院) and China Society of Public Administration (中国行政管理学会) (Wang, March 2013).

During Xi's term, however, the power was shifted to the Leading Small Group (LSG) in Deepening Reforms and Xi was personally engaged in the planning for the administrative overhaul. According to the official report, in 2015 he instructed the LSG to conduct research and investigations on the restructuring plans (Qiushi 2019). This put the decision-making power onto the same set of bureaucrats who designed the ecological civilization system, represented by the director of the LSG for Deepening Reforms, vice premier Liu, He and the familiar reformer, the Office Vice Director of LSG for Central Party Financial and Economic Work, Yang,

Weimin (Zhou & Zu, Sept. 2015; Wang, Sept 23, 2015). [121]Yang was the key figure in overseeing the reshuffling plan.

Second, the reshuffling decision team consulted the experts that overlapped with the PA epistemic community.

The major think tanks engaged in proposing plans for the ministry reshuffling (大部制改革) overlapped with those working on NPs and Protected Areas. The State Council Center for Development Research, Research Institute of Science Development Strategy at Chinese Academy of Sciences (CAS), United Nations Development Programme (UNDP), China Council of International Cooperation and Environmental Development (CCICED), Society of Public Administration, etc. were all involved in research projects on natural resources and environmental protection institutional reforms (Liu, March 2018; Wang, Sept 2015). For example, Wang Yi from CAS and LI Wenjun, an expert of protected areas and natural resources management from Peking University (PKU) are key protected area system reform experts, and both were involved in the ministry reshuffling research and proposals. CCICED's direct

[121] When the Central Party ***Overall Plan for Eco Civilization System Reform*** was issued in September 2015 (Xinhua Sept. 21, 2015), Yang was the primary spokesperson for this document. Although the document did not directly deal with institutional reforms (which usually happens at the change of administration for the party and state), words were around about ministry reshuffling involving natural resources management and a super ministry of environmental protection. Yang claimed that the design key point for the eco civilization system reform was integration and streamlining. And "this certainly means some of the institutional functions and responsibilities would be adjusted necessarily." When asked specifically about the ministry reshuffling, he indicated that as far as the direction was made clear, relevant departments would promote the corresponding adjustment of functions and institutions among departments according to the directions and requests proposed by the reform (plan) (Zhou & Zou 2015). He also made it clear that the Office of LSG for Central Party Financial and Economic Work was leading the eco civilization system reform, including the future ministry reshuffling.

involvement in producing proposals for top-level institutional reform for natural resources and environment management is a guaranteed channel for PA ideas to carry over to the top as well.

These are the factors underlying the bundling outcome of the PA reform with the party's agenda to reform natural resource management and terrestrial land use planning. The bundling worked to boost a radical PA reform. After all, if the root cause of the historical fragmentation at the higher bureaucracy level can be overcome by a restructuring, there is no reason to not to reshuffle the bureaucratic structure derived from that root if deemed necessary for a good cause as well. However, divides in the conservation area systems have grown into a path-dependence sector with its own vested interests and identities. Without strong scientific justification and entrepreneurial advocacy for the ideal of a unified PA, even the change of the background institutions might not lead to the total streamlining of the conservation areas in such a radical way. Afterall, even at the highest PA mobilization time in 2013, a partial reform bill, the Natural Heritage Conservation Law, almost got enacted, while the epistemic community's own proposal was only to create some additional legislative and administrative coordinating mechanisms around the existing systems.

Table 6.2: Evolutions of Reform Goals in National Park System and Protected Areas System: 2015-2017

	National parks vs. Protected areas
Pilot National Park System Reform Plan, 2015	Improve the protected area system within the pilot national park project.
Overall Plan for National Park System Reform, 2017	Construct the protected area system represented by the national parks.
19th Party Congress, 2017	developing a protected areas system composed mainly of national parks

Conclusion

This chapter decoded the dynamics of the surprising prevalence of the protected areas (PA) system agenda in a national park system reform through the theoretical lens of Modified Multiple Stream Framework (MMSF). It traced the process in which the epistemic community and their ideas affected bureaucratic decisions toward embracing a PA reform, indirectly and directly. In applying a MMSF, it highlighted how the political opening creates opportunities for the epistemic community to assert influence. First, it demonstrated how an "empty coupling" resulted from calculated moves by a set of bureaucrat decision makers to come up with a suitable reform agenda under the constraints imposed by previous contestations around PA legislation. In the second phase, it analyzed the interactions between the new sets of bureaucrat decision makers and epistemic community members as the reform unfolded. Following that, it made a case that the much larger administrative reshuffling contributed to a radical PA streamlining, while the continued contestation and advocacy of the PA epistemic community paved the way to its success.

Over the past twenty years, the ideas of a unified protected area system and management travelled from the international conservation community to China's conservationists and academia at the interface of academic exchange and program cooperation; and through an expanding epistemic community and their collective action under the entrepreneurial leaders, they were assimilated into the policy community and decision makers' general views.

When first emerged in elaborated form, the ideas of reorganizing China's protected area system in more scientific and less interest-captured ways were advocated for at the national agenda, but soon met with bureaucratic pushbacks; and when the other more interest-partial alternatives for reform failed due to the PA epistemic community's resistance, the PA ideas were shunned by decision makers who tried to re-start a national reform. However, the fact that the career bureaucrats under the spotlight of an enhanced national agenda had to take an interest-neutral stance and rely on conservationists and policy experts for advice and as allies opened the gate for the PA ideas to return to the decision table. With nature conservation through national parks and protected areas becoming the star project, or the so-called grasping handle (zhua shou, 抓手), of the Party leader Xi Jinping's ecological civilization legacy, it has become the most rational strategy for decision makers to defer to the policy expert community and particularly an epistemic community consensus. And the central party decision makers were willing to go beyond the epistemic community's recommendations, which were built on a political calculation of what was the most viable and cost-effective approach from the experts' perspective, to pursue the reform with maximal effects. They reshuffled the entire ministerial orders and got rid of the root cause of department-dominated PA management problems. This massive reshuffling also put the power into the hands of experts from one of biggest resource departments, SFA, and created a technocrat dominated decision making system by putting their top experts in charge of the administration of NPs.

However, State Forestry Administration (SFA), now the National Forestry and Grassland Administration (NFGA) did not have a particular media and civil society friendly culture, unlike MEP who always sought allies with the media and the public. As the dominant and nearly sole

player in the decision-making field for PAs reforms, the question of whether NFGA's decision making will stay open and remain accountable to the epistemic community and the public will be a key concern in the future. It is possible that the decision making could return to a department-dominated state-corporatist technocracy. With the status of National Parks as high as the national campaign enterprises, State-Owned Enterprises (SOEs), whether the state can maintain a healthy balance between NPs and remaining PAs would also be something that needs to be closely observed.

In June 2019, the party announced further plans for reforming the national parks and protected area system in the first central party document since the administrative restructuring in 2018 (Xinhua June 2019). It stated the plan to not only enact a national park law, the draft of which will be due by the end of the year, but also to enact a protected area law in the near future. The ideas of protected areas in unified management through legal and administrative institutions have come to a full circle, back to the party agenda, only with more power.

Part II

Chapter 6

Global Environmental Norms and Authoritarian Developmental States: The Paradox of China's Precautionary Choice with GMOs in a Comparative Context

Coauthored with Professor Yves Tiberghien,

Department of Political Science, University of British Columbia

ABSTRACT

What explains the surprising embrace of precautionary regulations on agriculture biotechnology in China after 2000, despite the lack of a free civil society and democratic channels that have proved necessary for such change in other developmental states like Japan or Korea? And what does it imply in terms of the ability of the Chinese governance system to incorporate non-economic interests, such as environmental concerns and societal public goods? When do authoritarian regimes accept or support the localization of global norms, and by what process?

China's agriculture GMOs governance demonstrates an evolving path of science-policy interfaces in a Habermasian typology. Situated at the core of a developmental industry policy, the supposedly dominant pro-GMO bureaucrat-scientist alliance in a state-corporatist technocracy was overcome first by an authoritarian decisionist intervention and then an unusually rampant and sustained anti-GMO public contestation. Using China's East Asian neighboring countries Japan and South Korea as the comparative cases, we seek to understand how the anti-GMO public contestation is possible with the double deficits in terms of both public preferences and organizational infrastructure.

We argue that a novel set of idea agency at the state-society nexus, a proxy civil society, was able to fill up a mobilization vacuum by riding on a state legitimating act; China's WTO entry created an opening of opportunities including less repression (legitimacy) and more facilitation with state resources and networks. The fused international NGO and a state institutional actor played key civil society functions and set off a double clustering process of public mobilization in terms of both ideas and actors. The paper traces policy decision through two distinct phases and sheds light on the shifting political opportunity structure that empowers different actors and their strategies in each mobilization step.

Our findings suggest that collective idea agency is critical to the public contestation in complex and uncertain issue areas, yet its impact depend on the shifting political opportunity structure in authoritarian systems.

This chapter relies on extensive fieldwork in China and comparative analysis with other East Asian cases.

INTRODUCTION

With stronger and more assertive authoritarian powers on the ascent, it is a challenging time for the Western-led liberal order (Diamond et al. 2016; Luce 2017). The spread of democracy and liberal political norms has increasingly faced challenges. Authoritarian regimes like China, Russia, Iran, Egypt, and even Turkey have found ways to resist such norms, while also controlling the internet and severing links between global and domestic civil society. Yet, does this authoritarian challenge to global norms apply across the board? *When do authoritarian regimes accept or support the localization of global norms, and by what process?*

In this paper, we focus on global environmental norms that are part of "the liberal environmental complex" (Bernstein 2001, 2013), itself a large umbrella covering a diversity of norms. We study these environmental norms in a tough political environment, namely authoritarian developmental states, and call this *the paradox of the adoption by authoritarian developmental states of global environmental norms.* Such states not only have the means to set national policy goals and control and repress social actors (authoritarian part), but they also prioritize economic development over other priorities (developmental state part) (Johnson 1995; Woo-Cumings 1999).

The question of global environmental norm adoption in authoritarian developmental states matters greatly for empirical and theoretical reasons. Empirically, the success of the global combat against climate change depends to a large extent on China's participation, given that

China represents 28% of global emissions.[122] The same goes with most other global environmental issues, from biodiversity protection to environmental pollution control. And indeed, perhaps surprisingly, China has increasingly embraced many international environmental treaties. While China increasingly speaks the same international environmental language and refers to these norms and treaties in its domestic implementation programs, the question remains as to whether China fully embraced the underlying norms.

Theoretically, authoritarian developmental states provide a tough test for theories of norm diffusion. Existing literature on norm diffusion pays no particular attention to regime types. The IR literature does not address the issue of how norms can be internalized institutionally as well as ideationally within a regime that limits the free flow of ideas, the presence of free civil society with powerful links to elected officials, and free linkages to the outside world. Additionally, none of the dominant realist IR theories can explain the occurrence of norm entrenchment when the adoption of norms ends up constraining the state's primary developmental agenda/interest.

In reality, there is a particular grey zone phenomenon, in which global norms are embraced at the diplomatic and national level while their core values and policy implications are contested and even transformed in the process of domestication. Comparative politics literature offers an insightful model, *authoritarian environmentalism* (Heilbroner 1974; Shearman and Smith 2007; Beeson 2010, 2013, 2014, 2016, 2018; Gilley 2012) that seems to provide potential explanations for norm internalization from within the authoritarian state. However, this model is indifferent to the power dynamic in the transfer of international norms to the domestic sphere.

[122] Source: International Energy Agency, CO2 Emissions from Fuel Combustion 2016 report (2014 data). Accessed from: http://www.iea.org/publications/freepublications/publication/co2-emissions-from-fuel-combustion-highlights-2016.html.

Moreover, in a fragmented state bureaucratic context, the norm-embodied policies get subverted instead of institutionalized along the process of implementation (Gilley 2012).

This paper treats the regulation of genetically modified organisms (GMOs) in China as a prism to test the localization of a global environmental norm in a tough political and economic environment. Since the 1980s, biotechnology has become one of China's top national strategic sectors. Aiming to become a global leader in the sector, Chinese government continuedly prioritizes support and investment in biotech, particularly on Agri-biotechnology. With most of its biotech research being publicly funded, it fits a strong developmental state profile. However, China has also emerged as an unlikely proponent of the precautionary principle in GMO regulation, joining countries such as the members of the European Union, Japan, Korea, and India. At the turn of the century, China adopted sweeping regulations on the safety administration of agriculture GMOs, including mandatory labeling, and ratified the Cartagena Protocol on Biosafety (CPB) to the Convention on Biological Diversity (CBD). Its precautionary GMO regime didn't lapse into non-enforcement while the state has ramped up its GMO development efforts over the past two decades. It has not only passed significant domestic laws to entrench earlier administrative measures, but also held off the commercial cultivation of genetically modified rice and corn on its territory against the increasingly strong push from the science-industry complex behind the national developmental agenda.

To add to this puzzle was a particularly low GMO literacy and the lack of general civil society organizations and networks when China quickly adopted a precautionary regime at the turn of the century. When global norms clash with developmental states, civil society contestation and public mobilization are decisive to hold the norm in place, as theorized in risk society (Beck 1992, 1996, 2009). In developmental states such as Japan and Korea, the public

mobilization is made possible by the civil society organizations and an environment supporting the free exchange of information. Unlike EU or China's developmental counterparts in East Asia, China's biosafety regulations were not initially driven by the public. Multiple polls in the early 2000s demonstrate that the general public had little to no knowledge of the GMO controversy and therefore were not in any sense particularly concerned about GMO safety issues; and there were not any domestic civil society groups or grassroot networks that meaningfully represented consumers, farmers or environmental interests on the issue of GMOs in the public sphere (Ho, Vermeer and Zhao, 2006; Zhao & Ho, 2005; Falkner 2006; Newell 2008), at least before 2002. From the perspective of social movements, the mobilizing structures (McCarthy 1987) for Chinese precautionary norm diffusion could be characterised as "double deficits," i.e., deficits in both public preferences and organizational infrastructure. Within a regime that constrains free speech and associations, this means even greater challenges to get any movement off the ground.

Biotechnology is a *scientifically complex policy domain* with high uncertainties in many fronts ranging from ethical to human health, environmental, social and economic. In applying the authoritarian typology of science-policy governance, we would expect China's biotechnology decision making to fall under a *state-corporatist technocratic* mode in which the high developmental agenda on the one hand, and the lack of public interest and participation infrastructure on the other hand would result in a dominant pro-GMO bureaucrat-scientist alliance. While China's GMO regulation is indeed routinely governed by the pro-GMO technocratic alliance, we find the decisions leading to a precautionary (anti-GMO) norm diffusion stem from drastic deviations from this mode, first by an *authoritarian decisionist* intervention and then through the unusually sustained and rampant anti-GMO *public*

contestation. Over the decade, GMO safety has become one of the most controversial and contested issues in China's constrained public sphere and has kept the state developmental agenda in check.

This chapter advances a process-based and agency-centered theory of public mobilization to explain the puzzle of the enduring localization of a global norm in an authoritarian developmental state such as China. In authoritarian China, public mobilization against GMOs was belated but surprisingly stronger and more sustained than in its democratic counterparts in East Asia. We argue that this successful anti-GMO mobilization can be explained by the functioning of *a novel set of collective idea agency, a civil society proxy, that filled up a mobilization vacuum and triggered a double clustering effect in its wake*.

A proxy civil society refers to a unique set of collective actors that serves the civil society functions in constrained political environment. Unlike the classic civil society that is independent of the state (Tocqueville 2015; Diamond 1994), and the embedded activism in which civil society actors rely on informal ties to the state (Ho & Edmonds 2008; Zhan and Tang 2013; Shieh 2016; Steinhardt and Wu, 2016), a proxy civil society is constituted of both state and societal actors who work side by side in promoting a shared cause. A proxy civil society concept thus allows us to look for the mobilizing structure for social movement beyond the usual space of civil society, as seen in general theory and cases in the developmental states of Japan and Korea. Through a converged agenda with the party state, this civil society proxy coalition created a legitimate "issue public sphere" (Habermas 1989, 1992; Yang & Calhoun 2007) and drew public support for norm-latent polices. In specific, the proxy civil society filled up the vacuum in mobilizing structure, and serves the same functions as a civil society for movement mobilization in democracies, including *representing and mobilizing social groups and the public*, *effectively*

managing media campaigns and whistle blowing, framing issues, acting as epistemic community, and gaining access to the decision making center.

This specific norm internalization pathway has its own features of mobilization and consequences. In particular, the social mobilization through civil society proxy experienced two phases in development: it started from the state core, being able to speak and act in official and semi-official capacity with high authorities and took the center stage role in the state media mobilization. When the political opening from the very top was closing, the mobilization structure shifted toward societal side and was joined by a broad set of social groups and networks, but also by elite allies within the state.

In China's case, we find strong *double clustering effects* triggered by the introduction of the tolerated GMO norms to the scene by a proxy civil society. In the process of *ideational clustering*, diverse dimensions of the norm are explored with radically nationalist and populist tones not common in Korea or Japan. In this process, the GMO issue frames evolved from a trade issue to food safety, national grain security and sovereignty and eventually, racial and nation security. In the process of this *dynamic clustering* in which existing sub-state and non-state actors and emerging social groups came together to form de facto anti-GMO coalition, China's cross-cutting coalition included radical individuals and military officers who have played important roles unseen in Japan and Korea.

This paper argues that the particular pathways of the anti-GMO mobilization in China reflect the *changing political opportunity structure* (POS) that enabled two steps of mobilization in their respective forms. In the emerging state, an unprecedented political opening at the top not only provided legitimacy to anti-GMO activism even by a non-state actor, but also rendered state resources available to facilitate the mobilization. In the development stage, middle class actors

were joined by radical nationalist social groups and their shared anti-GMO campaigns were empowered by the left-turning ideology and rise of red-guard generation leaders. One consequence of this norm internalization process is that the norm battle was increasingly framed in the ethno-nationalist narrative which could be a double-edged sword for future biosafety regulatory decisions. The environment norm was narrowly installed.

Our analysis starts from the state-initiated turn to precaution around the year of 2000, with a particular focus on the political linkages to China's accession to the World Trade Organization (WTO). Then we proceed to analyze how a single (international) movement organization in collaboration with entrepreneurial sub-state actors played the role of a civil society proxy in lieu of the political legitimacy and policy repertoires following the precautionary turn (2002-2009). Through this mobilization, when another opening of POS represented itself, new domestic groups and actors including the counter movement rose to contest the GMO governance (2010-present).

The rest of this paper proceeds through four sections. Section I gives an overview of GMO development, regulation and public contestation in China in the context of East Asian developmental states; section II provides a general theoretical framework of mobilizing structure and civil society proxy in an authoritarian developmental state; it also briefly discusses data and methodology; section III and IV provides the two-step analytical narrative in the Chinese case. Section V considers the generalizability of the argument beyond GMOs in China.

I. GMOs Development, Regulation, and Public Contestation in China and East Asian Developmental States

Since 1996, the global governance of GMOs has been fragmented, pitting two great poles against each other (Ansell and Vogel 2006; Bernauer 2003; Falkner 2007; Jasanoff 2005; Pollack and Shaffer 2009; Tiberghien 2006, 2012; Vogel 2002). On the one hand, the US (along with Canada, Argentina, and, more recently Brazil) has advanced a light-touch regulation approach, embedded in the "substantial equivalence" concept, according to which GMOs should not face tougher obstacles than crops that exhibit the same functional properties. At the global level, this approach was embedded in the science-based risk analysis requirements of the 1994 WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) or in the recently agreed Trans-Pacific Partnership (TPP). On the other hand, the European Union has advanced the "precautionary principle," which calls for protective regulations when current knowledge is insufficient to assess all potential future health or environmental risks. This approach led to mandatory labeling requirements in many countries and was embedded into the UN Cartagena Biosafety Protocol (CPB), now ratified by 172 countries (as of October 2019), but not in the USA, Canada or Argentina.[123]

Initially, by 1996, global and national regulations were in the process of converging toward the principle of "substantial equivalence," according to which GMOs should not be regulated in any more stringent ways than regular crops. This initial consensus included Japan, Korea, Taiwan, and China, where economic and trade ministries, as well as scientists and businesses, supported the "pro-science" and "pro-trade" approach.[124] These four cases have often

[123] For the full list, see https://bch.cbd.int/protocol/parties/.

[124] This comparative page on the cases of Japan, Korea, and Taiwan is derived and edited from Tiberghien, Yves forthcoming (2020) "The Battle over GMOs in Korea and Japan" in Esarey, Ashley, Mary Alice Haddad, Stevan Harrell, and Joanna Lewis Ed. *Eco-Developmentalism in East Asia*. Seattle: University of Washington Press and Tiberghien, Yves; (2012), "The global battle over the governance of agricultural biotechnology: the roles of Japan, Korea, and China" in Howlett, Michael and David Laycock, eds. *Regulating Next Generation Agri-Food Biotechnologies: Lessons from European, North American and Asian Experiences*. London: Routledge (series: Genetics and Society), pp. 111-125.

been analyzed under the lens of "developmental states," given their strong economic bureaucracies and national priority on economic development.

Japan and Korea signed the 2000 UN-sponsored Cartagena Protocol on Biosafety (which includes protections for biodiversity and mandatory labeling guidelines for cross-border GMOs), although Korea only ratified it in 2007, taking longer than Japan (2003) and China (2005).[125] In both Japan and Korea, the policy shift follows large-scale mobilization by civil society. Given its high dependence on US soy and corn imports and inability to sign the Cartagena Protocol as non-UN member, Taiwan initially hesitated. Yet, Taiwan similarly passed a mandatory labeling law in 2001, implemented in 2003 and patterned after the Japanese blueprint (with limited scope and the high 5% threshold). The legislation was expanded in 2007 and 2014, as non-GM labels started to appear on the market.[126]

Tiberghien has argued elsewhere that the patterns observed in Korean and Japanese GMO regulatory shifts neatly illustrate the shift of these countries from pure developmental states to eco-developmental states concerned with social legitimacy in addition to economic growth. This process has featured enlarged policy coalitions that begin to embed civil society groups and the global and domestic environmental norms that they champion, as part of the government quests for political legitimacy.

The cases of Korea, Japan, and Taiwan reveal the important role of civil society as a conditional catalyst for change under the right institutional conditions. In both Korea and Japan, NGO actions challenged the legitimacy of existing policy networks. Their effectiveness relied on three primary instruments. First, they demonstrated a significant *framing power*, as they

[125] Source: https://bch.cbd.int/protocol/parties/
[126] Sources: USDA GAIN report #TW1052, December 2001; Taiwan Today, 2014, https://taiwantoday.tw/news.php?unit=2,23,45&post=3282; and others.

triggered an institutional legitimacy crisis and a new process of normative formation, with the support of the media and international epistemic communities. Second, they were successful in developing effective *political linkages*, relying both on local governments and on urban policy entrepreneurs, both of whom used the issue to increase their voice and power. In both Korea and Japan, civil society benefitted from a period of political transformation and party change, which created fluidity and space for new coalitions. When the ruling party (Liberal Democratic Party) was fragmented or dependent on minor parties to govern, it opened space for new environmental or social agendas. Third, they successfully used the platforms of international institutions, by importing international norms and mobilization examples from Europe in particular to the domestic settings.

With these instruments, civil society was able to trigger an anti-GMO tipping point in policymaking in both Korea and Japan. However, going beyond agenda setting to the regulatory phase proved more difficult. In both cases, the bureaucratic apparatus refused to incorporate civil society in formal committees (as was done in Europe). In Korea, NGOS benefitted initially from stronger political leadership thanks to the presence of Agricultural Minister Kim Sung Hoon who came from civil society; but the Ministry of Economy was able to reassert its control and delay ratification of the Cartagena protocol once that Minister left office. In Japan, the presence of a favorable committee for consumer affairs in the Diet gave a bit more institutional momentum to the precautionary voice. Yet, even there, pro-business interests were eventually able to shut down the committee itself, even though the anti-GMO legislation has endured to this day.

In sum, the cases of Japan, Korea, and Taiwan show how global environmental norms carried by domestic civil society and accepted by the media led to policy shifts toward precaution and new regulations in democratic settings. In response to a changing public opinion

reacting to civil society and the media, policy entrepreneurs appeared and shifted the policy position from pro-business and pro-GMO to a compromise policy that embedded the precautionary principle. The shift was imperfect but clearly demonstrated the impact of global norms and civil society networks in democracy. The Japanese and Korean reversals were caused by tensions between a rising civil society and existing bureaucratic structures, leading to political arbitrage in favor of public opinion.

This process represents the disruption of regulatory politics (the so-called iron triangle policymaking) pursued since at least the 1950s by new actors, namely civil society actors. In the case of GMOs in Asia, these new actors tend to be primarily consumer groups acting in alliance with some emerging environmental groups (more so in Korea), occasional religious groups (Korea), minority small-scale or organic farmers (both Korea and Japan), and urban politicians. These varied interests were traditionally excluded from traditional regulatory politics in both Japan and Korea.

At the same time, so far, it is clear that the emerging civil society has only managed to capture the political agenda (taking advantage of more competitive party politics and democratic competition in both cases), and not to shape the detailed crafting of final regulations. This has led to an unstable outcome: only partial regulations that are fragile and not completely legitimate, something that can be seen as a transitional compromise.

Using this comparative vantage point, the question for China becomes: how could we understand the policy shifts taking place in China and the similar partial incorporation of the global norm of the precautionary principle in the absence of a democratic setting and a free civil society?

China's domestic governance of GMOs and position in the debate over the global governance of biotechnology represents an interesting balancing act. With its huge population, stagnating agriculture production and increasing environmental stress, China is under strong pressure to use agriculture biotechnology to boost its agriculture productivity and food security. In terms of research, testing, and imports, China is already a strong player in the field. At the same time, China's regulatory position is relatively precautionary and closer to that of the EU and Japan.

The structural pressures toward introducing productivity-enhancing technology such as agriculture biotechnology are great in China. China is feeding about 20% of the world's population with less than 7-10% of the world's arable land (even 7% by some estimates). China is a very large agricultural producer. However, it has recently lost its self-sufficient position and become a major importer of grains. China ceased to be a net exporter of soybeans and corn in 1995, when the domestic production stopped growing while the demand continued rising. Today, China is the world's largest importer of soybeans, and net importers of corn, wheat and rice. Over 90% of its imported soybeans and corns are biotech （James 2004, 2015）. The percentage of China's import in total food consumption has risen to above 10% in 2012, way higher than the official threshold of 5% for self-sufficiency (Netease Dec 11, 2013). Imports shot up from about 10 billion RMB in 2000 to nearly 70 Billion RMB in 2014 and went down to 42.5 billion RMB (U.S $ 5.94 Billion) in 2018 (Ministry of Agriculture and Rural Affairs, PRC 2019). Rice is particularly vulnerable, given the stringent limits of China's water supply.

Responding to the structural constraints on agricultural productivity, and due partly to the influence of a few overseas Chinese scientists on the then party leader Deng Xiaoping, China has made biotechnology a key strategic sector in response to the structural pressure in food self-

sufficiency since the mid-1980s. It has put a strong emphasis on research in agriculture biotechnology, spending about US$120 million annually from 2000 to 2006. China is the world's top public spender on genomics and genetic modifications of crops (Talbot, 2014). The major national Research and Development (R&D) schemes include but are not limited to the 863 Program, 973 Program, the multiple five-year plans, and the Mid-to-Long Term Developmental Plan for Science and Technology. Table one below gives the rough estimate of the R&D spending on biotech in these major developmental plans. In July 2008, the State Council upped the ante by approving a special science and technology fund of RMB 24 Billion (US$3.9 Billion) for research on new varieties of GM crops between 2008 and 2023 (15-year project). As of 2012, China had 30,000 scientists employed in about 200 publicly funded labs in biotech. Life science and biotech counted for 20% of the total R&D investment (Cao, 2012)[127].

Table 7.1. China's public funds and investment in biotech.

Programs	863 Program (1980s)	973 Program (1990s)	10th Five-Year Plan (2001-2005)	11th Five-Year Plan (2006-2010)	12th Five-Year Plan (2011-2015)

[127] We define China's developmental state in GMO development primarily based on its official strategic industry status and favorable financial, institutional and other policy support. However, China's developmental state has a much less streamlined administrative context compared to MITI in Japan; and regarding biotechnology, China has a highly under-developed crop variety cultivation sector and "unenforceable seed markets" (Newell 2008). And this is often cited as the reason why China's own GM crop variety won't stand a chance to competition from the foreign seeds developed by Dupon or Monsanto. China's GM policies don't appear to address these issues. However, China did succeed in independently cultivating its own patent BT cottons in short period of time.

Money Value	1.5 billion RMB (US$223Million)	$238 million US	$795 million US	$6.2 billion US	$308.5 billion US

Gillmour, Dang & Wang, 2015

China has developed the largest plant biotechnology capacity outside the US. It has tested GM technology with novel traits in rice, wheat, potatoes, peanuts, and many others that are distinct from research done in all other countries.[128] The figures from the Biosafety Office under MOA show that 2361 experiments on GMOs were approved between 2002 and 2007.

China has also become a major player in the production of GMOs since 1997, with six crops being approved for production so far (cotton, tomatoes, sweet peppers, poplars, petunias, and papayas). In late November 2009, the Biosafety office approved two strands of GM-rice and to one variety of corn. Yet, under public pressure, the MOA did not approve their commercialization. The certificates quietly came to expiration in 2014, while they were renewed in 2015 with low publicity, nothing came to fruition by the time they expired again in 2019 The GM rice and corn ended up not being cultivated in Chinese territory (to this day). After a decade of furlough, China announced its approval of three GM crop varieties, two corns and one soybean in July 2020 (Chen 2020). So far, only cotton has been widely adopted by farmers, other crops not being produced or in extremely small amounts. [129]

[128] However, due to discrepancy in patent practice as well as research capacity between China and U.S., many of China's novel traits are slight modification of existing GM traits from biotech MNCs.
[129] China's BT cotton has been commercialized in Pakistan and a GM soybean variety developed by a major Chinese agri-biotech firm was approved for commercial production in Argentina in 2019 (Deng, et al 2019)

These figures need to be placed in perspective. The acreage devoted to GMOs in China has been constant for several years—remaining at 3.9 million hectares in 2014, barely 2% of the total world acreage devoted to GMOs. In 2000, China was the fourth largest GMO producer in the world; but by 2008, it has slipped to the 6th rank and numbers have not improved since then.

GMO governance in China: Strong Precautionary Elements

Similar to many other important policy domains, authority of GMOs scatters around many ministries and when there is high attention to the issue, the state establishes a higher coordinating organ at the top of the state apparatus. According to the 2001 *Safety Administration Regulation on Agricultural GMOs*, the most authoritative regulation on GMOs to the present, two coordinating and regulatory bodies were created at the inter-ministerial levels, *the National Biosafety Joint Ministerial Conference* and *the National Agricultural GMO Biosafety Committee*. The former meeting was rarely conducted, while the latter, the National Agricultural GMO Biosafety Committee is an inter-ministerial organization effectively managed by the Ministry of Agriculture (MOA) yet reporting to the State Council. It is the key actor in Chinese GMO governance, particularly when it comes to granting safety certificates for the import or production of GMOs. However, other ministries are also involved. Ultimately, the State Council is the arbiter for key decisions.

The 2001 regulations require both food safety and environmental safety tests before granting a safety certificate, a position that puts China closer to the EU than the US or Canada. Another key precautionary component of China's approach to GMO governance is the

implementation of mandatory labeling after 2001. The imposition of mandatory labeling with a 0% threshold puts China in the same camp as the EU and Japan. However, like Japan and unlike the EU, China restricts the applicability of mandatory labeling to a defined list of specific products. Similarly, China has taken a middle position on the scope of labeling by only requiring the labeling of raw seeds or seeds that underwent primary processing, but not secondary processing. This approach avoids labeling the bulk of soybean imports from the US, once they enter the processing circuit. A potentially stricter regulation was issued by Ministry of Health (MOH) on GMO labeling in 2002; yet they were never implemented and were removed in 2007. China also bans imported GM beans from being used for tofu and soymilk production to avoid direct consumption. Labeling guidelines are generally enforced, with cooking oil being most scrutinized.[130]

The last plank in the precautionary approach taken by China is the ratification of the Cartagena Biosafety Protocol (CBP) led by State Environmental Protection Administration (SEPA). SEPA (later Ministry of Environmental Protection, MEP, and now Ministry of Ecological Environment, MEE since 2018) initially sought to enact a national biosafety law, although it eventually lost interest due to the entrenchment of MOA's biosafety regulations.[131] The CPB ratification was a major move that located China closer to the EU and Japan in terms of principle. It is also important to note that China was faster in ratifying the CBP than its neighbor Korea,[132] despite the strong civil society and democratic pressures to that intent on the Korean side.

[130] There are occurrences of illegal planting and sale of GMO crops as well as illegal use of GMOs in direct food consumption.
[131] Interviews with a former SEPA official confirmed this. National Biosafety Law legislation remains on the state's legislative plan list.
[132] Interviews indicate that China never intended not to ratify the CPB. It would have ratified it sooner if the turf fight between MOA and SEAP over the authority for treaty compliance were settled earlier.

Regulatory Entrenchment

In a modern administrative hierarchy, the cabinet regulations are not in a superior position in terms of jurisdictional power. Since the foundational regulations, the regulation on agricultural biosafety came into being in 2001, it has been contested by different government departments and at various legislative occasions. However, China's legislation and administration of GMOs have nevertheless consolidated in the hands of the MOA and around the state council's biosafety regulations. And the level of restrictive and permissive elements of China's GMO regulation, as pointed out by Falkner ang Gupta (2009), remains by and large the same despite efforts from different directions to change them.

As a compliance act of the Cartagena Protocol, MEP took the lead to issue the National Framework of Biosafety in 1999, providing guidelines for national policies regarding GMO safety issues. MEP (together with Ministry of Science and Technology, MOST, and some other ministries) has eventually aborted its ambitious plan for a national biosafety law.[133] As the leading agency for the CBD and Cartagena Protocol negotiations, MEP is granted the responsibilities to set environmental standards for the safety approval and detect GMO contamination.

MIH abolished its 2001departmental regulation on *Hygiene Administration of Genetic Modified Foods* and replaced it with 2007 and 2013 new administrative regulations on foods made of new resources. Both two new MIH administrative measures deferred to State Council's

[133] There have still been sporadic symposiums and workshops on the biosafety law. One was held after the scandal of gene edited baby broke out in late 2018. The call for the biosafety law was intensified in 2020 due to the global pandemic of COVID-19.

2001 regulations for jurisdiction over GMO foods. One of China's labelling agencies, the State Administration of Quality Supervision, Inspection and Quarantine (SAQSIQ) issued the Administrative Regulations on Food Labelling (2007 and 2009) that have a potentially broader content for GMO labeling than biosafety regulations as they stipulate that *any* GMO foods or foods containing ingredients legally identified as GMOs must be labelled as such, but in implementation the enforcement still follows the MOA's five categories for labelling.

In one level above the administrative regulations, there are roughly four major national legislations that directly involve GMOs, including, the *Quality Safety Law of Agricultural Products* (2006*)*, *Cereal Law* (Draft for public consultation and draft for approval), *Food Safety Law* (revision) and *Seeds Law* (revision).

The Quality Safety Law of Agricultural Products (2006) simply endorses the 2001 biosafety regulation. It stipulates that agricultural GMOs must be labelled and the labelling process must follow the State Council's Biosafety Regulation (2006).

The enactment or revision of the latter three laws was all contested on the GMO ground, as there were tendencies to take radical anti-GMO measures in the legislation.

The initial draft of *Cereal Law* stirred up big controversies as it proposed that "no work unit or individual is allowed to unauthorizedly apply Genetic Modification technology to primary staple food crop variety" (Draft Cereal Law, 2012). This clause was removed in the 2014 draft, and the legislation piece seems to have been shelved ever since. The supposedly harshest *Food Safety Law* in PRC's history only emphasizes the labelling of GMO foods be notable and elaborates on the penalties for violation of labelling requirements. The national *Seeds Law* basically adds some requirements for inspection and information disclosure regarding GMO crop variety approval.

Notably, there was a potentially draconian legislation on food and cereal safety that had a focus on GMOs as well. It was proposed at the annual conference of the National People's Congress (NPC) and the Chinese People's Political Consultation Conference (CPPCC) in 2011 with an overwhelming majority representatives' signature. But its initiator went down next year in great political drama and the proposal faded away. Therefore, GMO regulations have essentially maintained the initial equilibrium. A recent State council decision reduced the application steps for agricultural GMOs experiment at the sub-national level and directed all the application to the central government.

Table 7.2: Major development in GMO Safety-Related Legislation and Regulation since the MOA 2001 Regulation on Agricultural Biosafety Administration.

Name of the Regulation and Legislation Related to GMOs	**Sponsoring Departments**	**The Year**
Measures in GM Foods Hygiene Administration.	MIH	2001(Expired in 2007)
Measures in New Resource Food Administration.	MIH	2007(Expired in 2013)
Measures for Safety Inspection and Administration of New Resource Foods	MIH	2013
Quality Safety Law of Agricultural Products	NPC	2006
Administrative Regulations on Food Labelling	SAQSIQ	2007

Decisions of SAQSIA to Revise "the Administrative Regulations on Food Labelling"	SAQSIQ	2009
Cereal Law Draft (for Public Consultation)	NDRC, NGA*	2012
Cereal Law Draft (for Approval)	NDRC	2014
Measures for Major Crop Variety Approval	MOA	2013
Seeds Law (Revision)	NPC	2015
Foods Safety Law (second draft for Approval)	NPC, CFDA**	2014
Foods Safety Law (Revision)	NPC, CFDA	2015
Implementing Measures for Foods Safety Law	State Council, CFDA	2016
Decisions of MOA regarding Administrative Measures for Agricultural GMO Safety	MOA	2016
Decisions of State Council to Cancel 152 Items for Central-Government Designated Local Administrative Approval	State Council	2016

*National Grain Authority;

** China Food and Drug Administration.

Public Contestation over GMOs: from High Support with Ignorance to Strong Opposition

Public opinions over GMOs, particularly GMO foods, have undergone a sea change over the past two decades in China. Chinese people, initially hardly aware of the GMOs and its risks, have become highly concerned about GMO safety, and many strongly opposed GMO foods. China's media coverage of GMOs and public opinions went through similar patterns of development with an overall rising trend and a few peaks over time.

Academic surveys over the 2002-2016 period reveal that Chinese public support for GMOs or biotechnology started out high at a 50-60% but has continued to go down over the

years, with a low point of 11.3% in 2016; public opposition started significantly low at 11% and increased to 41% in 2016. The other clear trend is the declining support/opposition ratio, coming down from 5 plus in 2002 to 0.29 in 2016 (Cui and Shoemaker, 2018), indicating for most people who have strong opinions (vs. neutrality) about GMOs, the ratio of pro and anti-GMO population almost reversed from 5:1 to 1:4 over a brief 15-year period.

These surveys also indicate that, quite unlike Japan, Korea and EU countries where precautionary GMO regulations were taken when the public was concerned, China's early abrupt regulatory turn were made at a time the public was most positive and the opposition was at its lowest, compared to any of the following years. At the time when China took the most dramatic and precautionary regulatory turn in the early 2000s, the public was generally ignorant of GMO controversies and quite acceptive of GMO foods, at least conceptually, with a 57% support rate in 2002.

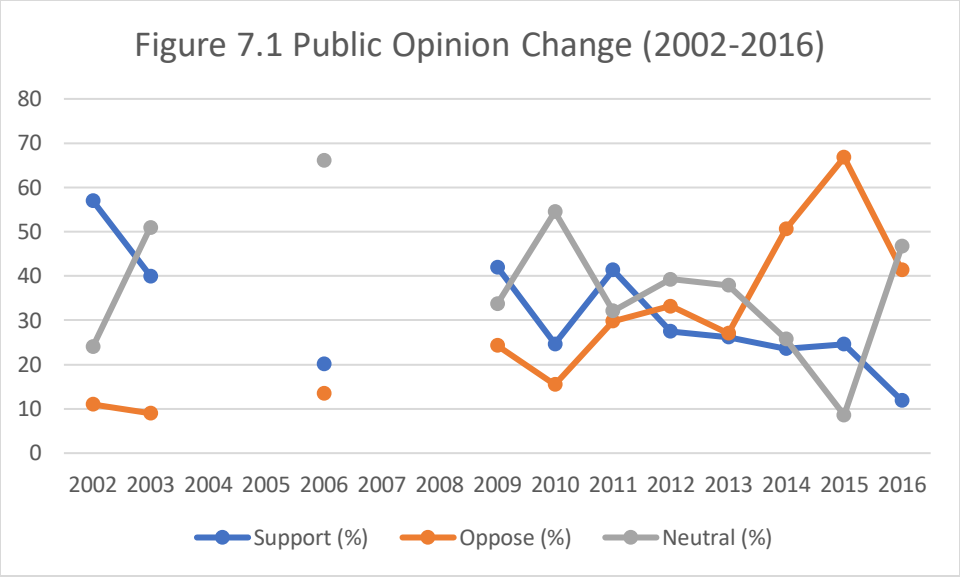
The public acceptance and support of GMO foods was accompanied by the general lack of scientific understanding of the biotechnology. In a very preliminary survey conducted in 2000 by the most authoritative party media in China, *the People's Daily*, a journalist randomly interviewed a dozen of customers in popular super markets in China's capital city, *Beijing*, and found out that none of the respondents had any clues about GMOs. Academic surveys in the early 2000s confirmed this general lack of knowledge and understanding of GMOs, particularly knowledge regarding risks and hazards associated with GMOs (Li, etc. 2002; Ho, Vermeer, Zhao, 2006; Lv & Chen, 2016). [134]

[134] This gap between relatively high "awareness" or "support" of biotechnology and significantly low knowledge and understanding of the technology may be attributed to censorship, lack of civil society, and general optimism with science and technology (Li etc, 2002; Lv & Chen 2016).

Table 7.3: **Public opinions of GMOs, 2002-2016, compiled from multiple surveys**

Survey Time	Support (%)	Opposing (%)	Neutral (%)
2002	57	11	24
2003	40	9	51
2004			
2005			
2006	20.2	13.5	66.2
2007			
2008			
2009	42	24.3	33.7
2010	24.7	15.5	54.5
2011	41.4	29.8	32.1
2012	27.5	33.2	39.3
2013	26.2	27.1	37.9
2014	23.6	50.6	25.8
2015	24.6	66.8	8.6
2016	11.9	41.4	46.7

Data compiled from Cui and Shoemaker 2018 and Ho, Vermeer and Zhao 2006



*Data Adapted from Cui and Shoemaker 2018, and Ho, Vermeer and Zhao, 2006.

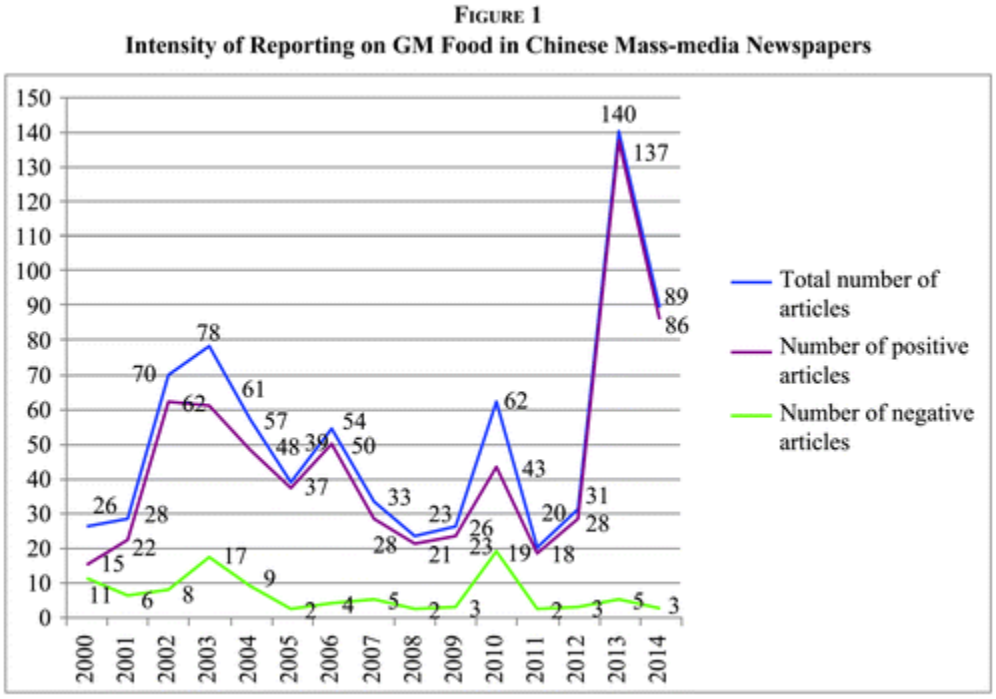
It is interesting to take a look at the media coverage of GMOs over this period. Below is a graph that compiled the articles regarding GMOs in China's primary official newspaper over the years between 2000 to 2015 (Lü and Chen 2016). It draws the trends in terms of the annual total number, and the numbers of pro-GMO ones and those with cautious tones. The graph shows a few interesting features. First, the official media remains predominantly positive in reporting GMOs, with overwhelmingly majority of reports only positively discussing GMOs. Second, the official media's "cautious" discussion of some negative aspects of GMOs has been consistently low with two years of small spikes. And during 2003 and 2010, the two peak years of high negative reports on GMOs, the positive reports shot up to a much higher degree. And third, there was a huge surge of official media's positive reports on GMOs in 2013, indicating a likely state campaign.[135]

[135] A dip in quantity of media reports since 2004 might be attributed to a state tightening on media reports on discussions of biotechnology (Ho etc., 2006). Commercial media has kept paying attention to the GMO controversies despite the cooling attitudes of the state media since mid-2000s (interviews 2016).

Table 7.4 Change of GMO Support/Opposition Ratio (2002-2016)

Survey Time	Support/Opposing Ratio
2002	5.18
2003	4.4
2004	
2005	
2006	1.5
2007	
2008	
2009	1.73
2010	1.7
2011	1.38
2012	0.83
2013	0.97
2014	0.47
2015	0.37
2016	0.29

Figure 7.2



Lü and Chen, 2016.

Many things can be read off this chart. Nevertheless, it confirms again, that China's abrupt turn to precaution was not particularly driven by heated public discussion. And read together with Figure 7.1, we can tell that despite the constant messaging to support GMOs in the overwhelmingly majority of the official media, general public opinion was not following the lead; instead, public support tumbled down while anti-GMO opinions skyrocketed despite the surging supportive reports in official media.[136]

[136] It is important to note that in the early 2000s major media outlets were still paper-based. This indicates first, there was no significantly vast alternative media sources than those those surveyed in Figure 2; second, the commercial media and internet-based media increasingly developed in this period and probably explained how the public was exposed to anti-GMO campaign despite official media's desperate effort to push pro-GMO messages. The number of citizens who regularly access internet has increased from 79.5 million by the end of 2003 to 668 million in June 2015 (Xinhua New 2015).

II. THEORETICAL FRAMEWORK

A norm is defined as "a standard of appropriate behavior for actors with a given identity" (Finnemore and Sikkink 1998: 891). In departing from the norm life cycle model, our paper focuses on a phase in norm diffusion that often skips scholarly scrutiny in international relationship literature (Finnemore and Sikkink, 1998; Keck and Sikkink 1998). We accept the two initial phases of "norm emergence" and "norm cascading" and focus particularly on the third phase of "internalization" at the domestic level. Our concept of norm internalization occurs at the institutional and behavioral levels of the state. And our theory particularly tackles the challenging internalization of global environmental norms in authoritarian developmental states.

IR theories tend to either conflate norm adoption and norm internalization or simply dismiss the whole issue of diffusion at the domestic institutional level, treating the state as interchangeable with national leaders. The realist theory views the state as a unitary actor in the international arenas of anarchy that make decisions based on its interests in survival in the competition for power and domination (Waltz 2010). In contrast, constructivist theorists pay more attention to agency of individual or group actors who are critical to the process of norm diffusion. The norm cycle model, for instance, would assume that formal adoption and effective internalization will take place as a result of "socialization" and repeated interactions. The state values the reputation rewards in the international system that result from genuine adoption of the global norm. Notably, the life cycle model treats the state as a unitary entity, interchangeable with its political leader or the bureaucrats. A norm is internalized when individuals so completely accept it that they take it for granted without thinking otherwise (Finnemore &

Sikkink 1998). For environmental norms that are more scientifically complex than human rights violation, the *Social States* hypothesis advanced by Johnston could explain China's conversion to global environmental norms through socialization of government elites and scientists through a global structure of conferences and institutions (Johnston 2008).

Both the economic and socialization IR theories have been applied to China's puzzling adoption of global GMO norms. Addressing the puzzle of authoritarian developmental adoption of global environmental norms, the existing IR literature offers several plausible explanations. First, the adoption of a norm such as the precautionary principle could be hypocritical and just mask economic or trade interests (Falkner 2000; Newell 2003, 2008; Paarlberg 2001). And this echoes the claims that China has been using environmental diplomacy to its own economic advantages and national interest by signing international environmental treaties since the 1970s, in a similar way as with China's engagement of multinational economic institutions (Pearson, 1999; Economy 1998; McBeath and Wang, 2008; Lewis 2012). In line with the rationalist arguments in the internalization literature, many observers of China's biotech policies claim that its precautionary shift in biosafety regulations is simply the state protectionist and mercantilist measures to enhance its global competitiveness. It is strategically adopted as an alternative trade barrier first to protect its domestic market in the face of increasing soybeans and possibly other agricultural imports, and second to protect its export markets (or potential) to states who have already implemented strict precautionary standards due to customer concerns. To a lesser degree, this "trade-up" explanation is proposed as one of the dual mechanisms, competition and socialization in the internationalization process, for the transmission of global biosafety regulations to China (Falkner 2006). This realist explanation is certainly true to a large degree, especially when paired up with socialization arguments, for the initial stages of China's

precautionary regulation and remains to be a relevant factor later[137]; however, this explanation's significance diminished drastically when China became the largest soy import state and the expected agricultural trading up lost its attraction.

While China was a major exporter of soybeans as late as 1995, China has instead turned into the world's largest importer in the early 2000s. As of 2005, China produced 18 million tons of soybeans but consumed 45 million tons, leaving a gap of 27 million tons for imports (41% of world soybean imports), about 40% of which came from the US.[138] By 2007, as Chinese production became more expensive than imports from the US, Argentina, or Brazil, it dropped further to 14M tons, putting China in the 5th position after India for the first time.[139] As of 2019, the domestic production of soybean was 18.1M tons,[140] an increase from the previous low of 11.78M in 2015; meanwhile, imports have shot up to 88.1M tons in the 2019-2020 marketing year,[141] up from 84.41M tons in 2015.[142] Chinese imports represent 60% of global soybean imports. They are expected to rise much further under the Phase 1 trade deal between the US and China. In stark contrast, China's export of soybean has stayed at a level of 110,000 tons (zhongguo chanye xinxi 2020), down from close to 140,000 tons in both 2015 and 2016.[143] In this context, China's export interests in soybeans to Japan and Korea can only be seen as a minor

[137] The competition theory was confirmed in our interviews, but only for the initial adoption.
[138] Source: Daniel Workman, "Top Soybean Countries: America, Brazil, and Argentina Lead Exporters to Largest Importer China." 9/17/2007. Accessed from http://internationaltarde.suite101.com/article.cfm/top_soybean_countries.
[139] Source: FAOSTAT (http://faostat.fao.org). By comparison, the US produced 73M tons, Brazil 58 M tons, and Argentina 48 M tons).
[140] https://ca.reuters.com/article/idUSKBN1YA0BH.
[141] https://www.spglobal.com/platts/en/market-insights/latest-news/agriculture/021220-chinese-2019-20-soybean-imports-to-total-88-mil-mt-up-6-on-year-usda
[142] http://www.agri.cn/V20/SC/gxxs/201707/t20170712_5744878.htm.

[143] Source: American Chamber of Commerce (http://www.amchamchina.org/article/4069#C3).

footnote at best.[144] The trend in rice exports shows less consistent decreases than soybeans; still it basically dropped from over 3M tons in the late 1990s to less than half million tons in 2016. In 2019, the export and import of rice maintained a rough balance, with 2.55M tons in import and 2.75M tons in export [145]. China has also become net importer of corn since 2010 (Ma 2020). China has become the biggest grains import market.

The majority of China's soybean and corn imports are GMOs. Given the skyrocketing domestic demands, GMO regulations have lost most of meaning as trade barriers against GMO imports. Its protectionist rationale does not hold up on the front of the domestic cultivation either. China has ramped up R&D investment in agri-biotech and in the recent 13th Five-year Plan (2016-2020), China aimed to make major breakthroughs and become the "lead runner" of the global biotech sector in 2020. Domestic GMO crop varieties have been lined up for approval for years, and the GMO scientists adopted the same mercantilist/nationalist framing as the anti-GMO discourse in advocating for domestic commercial cultivation of GMO crops. [146]

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[144] This occurred in the context of China's export explosion which means the expected foreign currency gain through soy exports lost its importance at the national level; meanwhile, the expected soy exports to Japan and Korea did not keep up either, due partly to issues with certificating credibility and quality control of beans from China. The expected soybean export did not come to reality, due to difficulties with quality control under the requirements of imports countries for GMO labelling and certification. Furthermore, China quickly reversed its status in trade balance and quickly rid of its desperate need for even small fraction of agriculture export to acquire foreign currency. The small amount of possible soybean exports lost its significance for foreign currency acquirement.
There are still some strategic advantages to keep the regulation in places as a non-tariff barrier: first of all, its function to prevent imports can still be used occasionally as a gesture to domestic audience and internationally as a protection measure such as manifested in the returned import corn cases during the 2013-2014.Besides, due to the GMO safety regulation, domestic beans are segregated from import beans to guarantee a secure market. Imports beans are only allowed for processing and feeding.

[145] MOA, "2019nian woguo nong chanpin jinchu kou qingkuang" accessed Oct 23, 2020 http://www.moa.gov.cn/ztzl/nybrl/rlxx/202002/t20200218_6337263.htm.

[146] There is indeed another protectionist mechanism embedded in China's GMO soybean safety administration, and that is the segregation of markets for domestic and import beans, with the latter being only allowed for processing or feeding instead of direct consumption, presumably due to human health concerns. There is no explicit regulation for this segregation but according to the protocol for import application, only the imports requested for non-direct consumptions can be approved. With soybean products such as Tofu and soymilk being important part of national diet, this mechanism serves to reserve

Second, a socialization thesis partially confirmed in Falkner's dual mechanisms argument, uses the changing attitudes of bureaucrats and scientist to explain China's shift to adopt precautionary GMO regulation. However, the case of GMOs shows how conflicted global norms can be. Chinese elites have submitted to two sets of institutions and narratives in opposition to each other: on the one hand, the global trade regime, including the 1994 WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), is opposed to the precautionary principle and only allows a "science-based" risk evaluation process. On the other hand, the UN-based Cartagena Protocol incorporates the precautionary principle that was proposed at the UNCBD in Rio in 1992 (Bernstein 2013). Because the global trade regime challenges and rejects the precautionary principle, it is not a universal norm with a strong socializing power. Environmental norms strengthen and spread better as scientific consensus on harm grows (Hass, 1992; Alger and Dauvergne 2017; Dauvergne 2018). The science community, however, has been split on the issue of GMO safety and has not come up with strong evidence of harm to human health. In recent years, the pro-GMO consensus among scientist community has grown stronger, indicated by incidences such as a public letter to Greenpeace signed by 107 Nobel Laureates in 2016 (Achenbach 2016). Our interviews of Chinese scientists and bureaucrats from the inner circle of policy making indicate that they are far from having consensual support of precaution; in government organized expert consultation meetings, precaution advocates are often the minority and on the defense. The social learning of scientists and experts can only do so much.

a share of market for small domestic producers from relentless competition of import beans to a degree. However, sources have revealed that significant amount of import beans have leaked to market for direct consumption, yet this has not become an explicit concern for either the state or the public.

The comparative politics (CP) research does not offer much direct insights to explain the norm internalization either. The literature on domestic policy-making in China offers a powerful model of "fragmented authoritarianism," where vertically-divided ministries and horizontally divided jurisdictional governments engage in great bureaucratic battles against each other, with the outcome depending on their coalition power or strategic alliances with top political leaders (Lieberthal 2004; Lieberthal and Oksenberg 1988). While turf wars and bureaucratic maneuvering features big in the precautionary GMO regulations in China (Falkner 2006; Newell 2008), the power balance clearly favors the developmental departments over the environmental agency once the political momentum behind the initial precautionary turn dissipated. In the more updated version, the fragmented authoritarianism 2.0, Mertha identifies a trend of pluralization in which "policy entrepreneurs," mostly non-state actors from a journalist-NGO nexus but also some sub-state actors, can also influence policy decisions through effective issue framing and/or coalition forming and by exploiting bureaucratic fractures (Mertha 2009). China's GMO politics indeed features the high level involvements of "policy entrepreneurship" and contested issue framings; however, the fragmented authoritarianism 2.0 does not cover newly emerged social groups and actors, nor does it fundamentally address why they and their framings were able to succeed.

A useful and relevant framework in direct opposition to the *fragmentated authoritarianism* explanation is the authoritarian environmentalism model (Gilley 2012). This model proposes that an autonomous state can effectively enforce unpopular environmental policies because of its dominant state structure forbidding public participation and excluding economic elites in decision making (Heilbroner 1974; Shearman and Smith 2007; Beeson 2010, 2013, 2014, 2015; Gilley 2012). This model is inspired by the variety of capitalism in East Asia

in which the developmental policies are coordinated by a powerful interventionist state. It assumes that, in a similar fashion, the central state is strong and that "eco-elites" have a unified sway over relevant policymaking at the top. In other words, the state is both willing and capable to adopt and promote relevant environmental norms. However, these assumptions are weakened when a particular global norm actually challenges the authoritarian state in its primary developmental agenda.[147] In the case of agriculture biotechnology, developmental elites and environmental elites within the states are at odds with each other and are engaged in a real pitch battle for agenda-setting and decision making. If anything, the developmental and scientific elites are more powerful than the environmental elites. Moreover, while the hallmark of authoritarian environmentalism is the absence of public participation (Gilley 2012), public mobilization and contestation over GMOs spread throughout the policy-making process after the initial inception and mounted to the highest level of public concerns in China. The authoritarian aspect of state environmentalism is actually turned upside down in China's GMO politics, and the developmental state constantly faces push backs from the public, making the situation resemble democratic environmentalism in fundamental ways. Strangely enough, with all kinds of pollution and conservation problems on the rise in China, along with an underdeveloped and limited environmental civil society, GMOs still turned out to be the most controversial environmental issue for the Chinese public before 2015.[148]

[147] Political momentum aside, in rare cases when eco-elites and economic elites can converge over an agenda such as climate change and green technology and turn it into a unified green development strategy, the assumptions work, and the authoritarian environmental approach is vindicated.
[148] A shift of national attention occurred when a documentary movie Under the Dome about smog became the center topics of public sphere in 2015.

In sum, classic theories of either international relations or comparative politics applied to China cannot adequately explain how an authoritarian regime obsessed with development would not only adopt global environmental norms but also adhere to them.

Theory of Civil Society Proxy in Authoritarian Developmental States

In this paper we advance a theory of civil society proxy to explain the puzzling entrenchment of a costly global environmental norm in authoritarian developmental states. We argue that civil society contestation and public mobilization are critical to the enduring localization of global environmental norms within developmental states, and even more fundamental for the norms to stand their grounds in authoritarian developmental states once their tactical adoption lost its original usefulness.

A proxy civil society refers to a unique set of collective actors in a confined political environment that performs the civil society functions. Unlike the classic civil society that is independent of the state, and the embedded activism which relies on informal ties to the state (Ho & Edmonds 2008; Zhan and Tang 2013; Shieh 2016; Steinhardt and Wu, 2016)), a proxy civil society is constituted of both state actors and societal members. This civil society proxy lies in the nexus of the party state and society, and essentially is a coalition among sub- state actors, social organizations or groups, and the media. The collaboration between the state and societal actors is so strong that their relationship is more of a partnership than just a coalition. Through converting a party state agenda to its own, this civil society proxy utilizes the state media and mobilizing networks to propagate its mobilizing frames and advocate polices in its favor.

In a tradition of Alexis de Tocqueville, we define civil society as voluntary associational life (Putnam 1995; Diamond, 1994, 1996, 2006; Skocpol 1996, 2004, 2013; Edwards 2009, 2013). Roughly speaking, civil society is "an intermediary entity, standing between the private sphere and the state", and "is distinct from 'society' in general in that it involves citizens acting collectively in *a public sphere* to express their interests, passions, and ideas, exchange information, achieve mutual goals, make demands on the state, and hold state officials accountable" (Diamond 1996, 228-229). According to Diamond, civil society not only "encompasses a vast array of organizations, formal and informal," but it also has a dimension as "the ideological marketplace" and "the flow of information and ideas." What the latter means is that civil society includes not only "independent mass media" but also universities, think tanks, publishing houses, etc., i.e., institutions who belong to "the broader field of autonomous cultural and intellectual activity." (Diamond 1996, 229)[149]

Civil society's role in environmental governance is generally positively perceived, at both the global and domestic levels. The legitimating and democratic roles of civil society in global environmental governance have been mostly theorized and debated in recent decades (Lipshultz 1992; Gemmill 2002; Bernauer and Betzold, 2012). The critical roles that civil society plays for domestic social and political/policy changes have been long recognized in social movements theories and practice of environmental governance (Calhoun 1993; McAdam 1988; McCarthy and Zald 1977; Skocpol 2003; Tarrow 1998).

[149] The normative and empirical implications of the civil society concept are widely debated, especially regarding the independence and autonomy of civil society from the state apparatus in Chinese historical and political context (See Cheek 1998; Brook and Frolic 1997). My thesis is primarily a functionalist theory of civil society organizations and free information in designated issue domain and does not directly address the general conceptual debates surrounding civil society.

In particular, civil society organizations, and in much more implicit way, the institutions of free media and free exchange of ideas, feature big in the *mobilizing structures* concept in account of social movement and mobilization (McCarthy 1996). To social movement theories, mobilizing structures answer the questions about the organizational dynamics of collective action. Formal social movement organizations (SMOs) and informal organizations and grassroots networks constitute the mobilizing structures, i.e., "collective vehicles" "through which people mobilize and engage in collective action" (McAdam, McCarthy and Zald, 1996). In the post-materialist era, social movements and mobilization increasingly rely on formal organizations, particularly SMOs, but also informal groups and networks as the mobilizing agents and facilitators of collective actions. And thus, the "organizational infrastructure" of a country or an issue domain matters greatly for whether a movement will arise and what patterns it follows.

We argue that the location and actors of mobilization in the party state could be significantly different from that of a civil society such as in Japan and Korea. We argue that despite the "thin mobilizing infrastructure" of China regarding GMOs in the sense of the classic civil society, the functions of civil society for mobilization can be achieved by a different structure that involves the collaboration of state and societal actors in the party state, during a time of a strong political opening. The functions of the civil society that are lacking due to the authoritarian restriction include *representing and mobilizing social groups, effective media campaigns and issue framing, acting as epistemic communities, playing the role of watchdogs and whistle blowers as well gaining access to the state decision power.*

Representing and mobilizing social groups: as Diamond points out, civil society may serve democracy "by creating channels other than political parties for the articulation, aggregation, and representation of interests" (1996). Without sufficient organization, mobilization is impossible. The preexisting relations among social movement supporters make social movement "far more likely" and "less costly in human effort and material resources" (McCarthy 1996). But the mobilization is still possible with some virtue representation by professional lobby groups or social movement organizations, in circumstances when the civil society infrastructure does not pre-exist.

Media Campaigns and whistle blowing: in a controlled media environment, the official discourses are difficult to contest partly due to a lack of transparency in the decision and implementation process. Media checks and investigations of non-compliance provide fuels for movement claims and public attention. A proxy civil society can both play part of the media role such as independent investigation and whistle blowing, but also mobilize the state media resources for its campaign purposes.

Effective issue framing: for mobilization to happen, people at least need to feel both grieved for some aspects of the situations and optimistic that if they act collectively, the problem can be redressed (ibid, 5). While representative democracy theory believes that interests just need to be aggregated, a constructivist theory of democracy and social movement emphasizes how the issues are presented and related to the public.

Epistemic communities: Following Peter Haas (1992), epistemic communities represent networks of knowledge-based experts that articulate cause-and-effect relationships of complex problems, frame collective debates, propose specific policies, or identify salient points for negotiation for politicians. Epistemic communities are most powerful in novel and technically complex policy issues when decision makers and stakeholders' understandings are rudimentary (Dunlop 2017). As a democratizing science movement theory suggests, the knowledge coproduction is key for movement success in complex policy domain (McCormick 2007).

Access to state decision power: in a liberal democracy, civil society action can press political parties and politicians to react to expressed public interest, at local or national level. In authoritarian context, the responsiveness is much less straightforward. A proxy civil society coalition needs to access the state by lobbying or directly sitting at the deliberation table in the administrative meetings or legislative consultation sessions, especially when the public opposition was in the nascency.

While the civil society proxy provides the five functions as internal organizational dynamics, any success of civil society and social movements depend on *political opportunity* structures, including political space without fear of repression, the presence of elite allies, and access to decision-making (McAdam et al. 2001; Tarrow 1998). For example, civil society is more likely to have an impact on political agendas when either the situation in party politics is in flux (Japan), there is a rise in the political relevance of urban politics (Japan and Korea), or weakening bureaucratic control (Japan and Korea). Finally, political decentralization can also offer entry points to NGOs contesting the status quo, as it increases two-level competition

between local and central governments. These political opportunity structures are rare or absent in authoritarian states, with some being related to different political opportunities (such as relevance of urban politics).

Recent scholarship has tried to bridge the social movement research from mostly democratic regimes to authoritarian ones, and some argue that despite substantive differences in levels of repression and institutional structures, both democratic regimes and authoritarian ones share a set of the fundamentally same core variables in political opportunity structure (Xie and Van der Heijden, 2010; Xie, 2011; O'Brien, 2008). Xie and Van de Heijden proposed a synthesized set of core variables of POS, including openness or closure of formal political structure, informal elite strategy (repression or facilitation), configuration of power (divided or united elites) and political output structure (strong or weak implementation capacity). Generally speaking, the more the power is shared institutionally with checks and balances, the more open the political structure is. The less fear of repression, the more likely the social movement will rise. The presence of powerful elite allies helps to aid the movement to gain access to public sphere and decision-making power. The last aspect of POS refers to the state capacity to respond to the movement's demand.

We argue that despite the formal closeness of an authoritarian regime, the increased openness through pluralization of social actors and media, and particularly the political opening that cause informal elite strategy to be less repressive and more facilitative, as well as allies within the states makes the social movement waged through a civil society proxy more likely to prevail in authoritarian developmental states.

More specifically, China's lasting public support for the precautionary policies is largely a result of critical mobilization under a substituted provision of essential functions of free media, organized interest groups and grassroots organizations, as well as an internationally connected epistemic community while they are absent in their liberal forms due to authoritarian constraints. We propose that China's anti-GMO movement has gone through two stages of civil society mobilization. During the movement's emergent stage, a single international SMO together with sub-state actors fulfils the civil society functions in mobilization, under the enabling POS including the higher legitimacy for anti-GMO activism and willing cooperation from the state and media due to the opening of a window of opportunity created by China's entry to WTO; in stage two, this initial political opening closed off but the anti-GMO mobilization was picked up by both the burgeoning middle class and radical populist and nationalist social actors, facilitated by the rising Red-Guard generation to leadership and an ideology turn.

While the public mobilization through civil society proxy has been successful in upholding the precautionary norm especially after the local actors took the center stage, it also has had other consequences and limitations. In terms of social groups, in addition to consumers, producers and general public who are concerned about food safety, the movement also attracted the emerging radical nationalist-populists, hawkish military officers and Maoist leftist political elites and their grassroots supporters; ideationally, the precautionary norm has taken on strong anti-capitalist and anti-imperialist tones and been tainted by rumors and conspiracy theories. GMO contestation has been politicized, and the norms are distorted in this diffusion process. This is what we call the "double-clustering effects" of this specific norm internationalization process.

Data and Methodology

This paper is based primarily on qualitative data collected from field interviews and document research over a decade during 2006 to 2018. The about 60 semi-structured interviews were conducted in North America, Japan, Korea and China. We have interviewed government officials in relevant functional bureaucracies, policy experts, scientists, NGO leaders, media reporters, researchers, grassroots activists and business representatives over multiple trips over the years.

This paper is an in-depth study of a case of norm internalization through public mobilization in authoritarian developmental states. It process-traces the causal linkages between the mobilizing agents and their strategies, mobilizing structures and mobilization process. The causal inferences are mainly supported by most credible observable implications of the causal relationships. The causal inferences are also drawn from comparisons between the Chinese case to Japan and Korea through both methods of agreements and methods of differences.

This research is inductive in nature and contributes mostly to theory building in understanding norm diffusion through social movement and mobilization in non-free societies.

III: Anti-GMO Contestations: Proxy Civil Society and Its Impacts

GMOs Mobilizing Structures in East Asian Developmental Countries and an Organizational Deficits in China

Sharing similar state developmental drives for the biotech industry, anti-GMO movements in Japan and South Korea benefit from the few civil society factors since the mid-1990s (Broadbent 2002; Haddad 2007; Hasegawa 2004; Pekkanen 2006; Schreurs and Economy 1997; Schwartz and Pharr 2003; Tiberghien and Schreurs 2007): first of all, the existence and emergence of social groups and grassroots organizations that advocate precautionary principles and actively engage local and national politics; second, free media and communications that allow ideas to spread and mobilize the public; third, the presence of the transnational linked epistemic community and global advocacy network; and last but not the least, electoral/democratic accountability mechanisms to local constituencies and public opinions. In the cases of Japan and Korea, new emerging social groups, including environmental NGOS (Japan and Korea), consumer groups (Japan and Korea), religious groups (Korea), housewife organizations (Japan), have managed to link up with urban politicians and shift electoral dynamics at least in urban constituencies. They have demanded implementation of global environmental norms to which the state had formally (if not genuinely) signed up.

Civil society context in the post-communist authoritarian regime such as China resembles little of the classic East Asian developmental states. First of all, grassroots organizations and civil society associations have gone through rapid growth due to market reforms and government downsizing in the post-Mao era, at such a rate that it has even been described as an "associational revolution" (Wang and He, 2004); however, civil society associations are highly restricted by regulations and civil society activism is confined to mostly non-advocacy activities (Zhan & Tang, 2008, 2013; Ho & Edmonds, 2007; Hilderbrandt 2013; Teets 2014).

Taking consumer groups and producer groups for examples, China's national consumers' association, *China's Consumer Association* (CCA), and its local branches are government-

sponsored and top-down run organizations, acting as *de facto* government agencies (White, Howell and Shang 1996, 111). Its local branch "handles only individual complaints and deals mostly with enterprises rather than governmental departments" (White 1993, 75). There are no members in the CCA, yet it monopolizes legally registered associations for consumer rights, as Chinese regulations forbid the registration of more than one social organization of the same type in one administrative jurisdiction.

As for *producers*' organizations, the Chinese government started to promote the agricultural professional associations and farmers' professional cooperatives in the late 1990s, and this support intensified in the late 2000s (Wang, 2010; Song et al, 2013). In 2004, a survey result indicated that less than 2.9 percent of rural households had joined some farmers' professional associations, roughly representing 7 million households for 140, 000 farmer's associations (Shen et al., 2004; Fock, et al. 2006, 20). The percentage of registered households rose to 9.7 percent by 2008 (Deng et al., 2010; Song et al., 2013). The most recent data claims that the number of farmers associations has reached 1.93 million, and registered households have grown to over 100 million (Dong & Hong 2017).

The recent prosperity of the rural cooperatives is a result of the CCP's grand scheme in building "the socialist new countryside" under the Hu/Wen administration and its continuity into the Xi era (Thøgersen 2012; Thøgersen & Bislav 2012; Looney 2020). Most farmers associations are small, generally limited to the confines of a single township and based around a single product. As for the soybean sector that was hardest hit by GMOs, the top policy circle has been aware that this sector is weak partly due to its lack of farmers' professional cooperatives that would reduce production cost and enhance their market competitivity. A former vice minister of the MOA wrote a piece in a top party magazine to point out the "urgent need for organization of

soy sector" (yicai, 2010). China's soybean farming is small household based[150], and spreads among a few million farming households. Soybean farmers' professional cooperatives only started to emerge in 2007[151]. On the other hand, China's national soy industry association was not established until 2007 despite previous efforts by policy entrepreneurs[152].

In both Japan and Korea, farmers are politically significant as they hold ballots in local and national elections. Both Korea and Japan have a tradition of active local and small farmers movements against big international agricultural corporations. In China's GMO scenarios, there was no grassroots producers or consumer organizations involved in GMO advocacy and contestation, at least before the 2010s. Their national organizations were either non-existent (for producers) or minimally involved (for consumers) in the campaigns around GMOs. In an almost organizational vacuum, however, what is more surprising is that China's domestic environmental NGOs also stood outside of the movements.

Environmental civil society organizations are the most active and prospering NGOs in China's changing associational scene. They are subject to the same restrictions in registration, funding, and operation as other civil society NGOs are but enjoy more legitimacy due to the "greening" of the state (Ho, 2001) in response to the environmental degradation in the wake of China's rapid economic growth. By late 2008 there were 3,539 environmental organizations registered under Ministry of Civil Affairs (All-China Environment Foundation 2010), with many

[150] Soybean farming in Northeast China, consisting of 40% of national production, is distinct from soybean farming in other areas of China for its relatively bigger size. Average size of soybean farm in NE is around 200 mu per household (Interview September 2016, Beijing).
[151] In 2007, China enacted Law of Agricultural Professional Cooperatives, granting legal status and signaling its policy preferences. Song et al. 2013 mentions that farmers cooperatives are more likely to be established in jurisdictions where governments issue directives requesting the cooperatives to be created.
[152] There was previously one soybean association at the national level, a division under China Chamber of Commerce for Import and Export of Foodstuffs, Native Produce and Animal By-Products (CCCFNA), sponsored by Ministry of Commerce. It was mainly in charge of price coordination of import and exports of soy meal. It is sectoral based and segregated from soybean production.

more unregistered or otherwise registered[153] (Xie and Van der Heijden, 2010). The majority of ENGOs engage in education while the most active ENGOs focus on conservation and water protection. One distinct feature of China's anti-GMO movement is that no domestic ENGOs took up the GMO issue.[154]

Emergence of Anti-GMO Movement Through A Civil Society Proxy: 2002-2009

With the missing civil society organizational actors and lack of free media as well as democratic accountability mechanisms, and when the public had little to no knowledge about potential risks associated with biotechnology, how is it possible to wage a national campaign that has enduring impacts on norm internalization? This paper argues that *an international non-governmental organization (INGO), Greenpeace (GP), in hand-in-hand collaboration with the state actors from SEPA, played the role of a proxy civil society that not only pushed back pro-GMO developmental agenda but also triggered the full-blown national mobilization contesting GMO policies in a double-clustering fashion in the following stage.*

From a social movement perspective, we wouldn't be able to understand the successful mobilization through a proxy civil society without a close look at the *political opportunity* structures that enabled the social movement actors and their strategies. We argue that a significant political opening at the top (informal elite strategy) created by China's entry to WTO brought great opportunities, including a less repressive environment due to enhanced issue legitimacy, and more willing facilitation from the actors within and associated with the state, in

[153] Typically, as business which status subjects the organization to taxation and other obligations.
[154] One Greenpeace staff recalled a one-time attempt of them to reach out a mother-infant organization in Beijing for publicity events regarding GMO foods but got cancelled in the end (interview, September 2016, Beijing)

addition to a formal institutional strategy of the state campaign for GMO labelling regulations. These, together with a centralized state output structure, set the stage for the proxy civil society mobilization to take off.

Political Opportunity Structure (POS)

Political Opening: China's WTO Entry and GMO Regulatory Turn

An important policy change in China, if substantive, could provide some potential room for activism and contention. For instance, the state can wage official media campaigning to propagate positive messages about the policy intentions and effects (Stockmann and Gallagher, 2011; Lv 2014); and the rhetoric could encourage some citizen activism in the spirit of rightful resistance or rule-based resistance (O'Brien 1996; O'Brien and Li 2006; O'Brien 2013; Perry 2007, 2008, 2009, 2010). There was no exception for China's precautionary regulatory turn in the early 2000s. However, there is something extraordinary about this political opening that generates much greater consequences than a "paper tiger" policy stance. And that lies in the political side of the precautionary policy adoption.

The essential aspect of POS for GMO politics in China lies in the dynamic in *informal elite strategy*. The biggest political opening associated with GMO policy in China is a landmark international event, China's entry to WTO at the end of the 20th century. In a fashion similar to a *focusing event* in the agenda setting literature (Kingdon 1995; Birkland 1997, 1998), China's WTO entry boosted agriculture GMOs to the forefront of national political debates due to a perceived agricultural crisis caused by liberalization of trade and domestic markets.

Previous research correctly explained the rationale of China's decision to embrace precaution as a combined result of both a strategic calculation for trade protection and a learning process through socialization in international cooperation (Falkner 2006); however, one important motivation at the elitist level has remained obscure, and that is the perceived usefulness of precautionary regulations of GMOs against the treaty impacts by domestic elites at the top.

Chinese leadership was heavily criticized for their WTO decision and in desperate need to come up with policies in defense. Disputes around GMOs proved to be such an opportunity. China's soybean was deemed as a precursor of WTO's impact on China's agricultural sector due to the fact that the state *de facto* eliminated tariffs on import beans, mostly GMOs, a few years ahead of the WTO entry. As a result, China's soy sector fell into depression and never recovered. Out of concerned discussions about soy and WTO, GMOs emerged as a key word for possible protective policies. This, together with trade disputes around GM tobaccos and soy sauce exports, as well as China's experience with Monsanto's GM cotton seeds, whose high profit margin outraged the Chinese officials, were underlying China's position in signing onto the Cartagena Protocol in 2000 and quick-fire precautionary regulation in 2001 and 2002.

With China's WTO deal looming large, GMO regulation was promoted with much more seriousness than just an international environmental treaty. The path-setting 2001 *Safety Administrative Regulation* of *Agricultural GMOs* was drafted and passed in three months, significantly quicker than the previous regulatory measures on agricultural GMOs that had taken more than three years to make when there was hardly any anti-GMO concern within China's policy circle. This regulation was conjured up by bureaucrats associated with the Ministry of Agriculture (MOA), without much involvement of the State Environmental Protection

Administration (SEPA) who took the lead in negotiating the Cartagena Protocol on behalf of China (Interview September 2016, Beijing). And the following three implementing measures for the *Administrative Regulation* were also passed swiftly in 2001, regulating the approval of safety certificate for commercial planting, imports/exports and labelling of agricultural GMOs. Notably, these administrative measures were put in place a few years before China even ratified CPB in 2005.

These quick moves were not typical bureaucratic decision making in China's fragmented state, especially with their drastic departure from a set developmental regulatory path. The landmark 2001 *Safety Administrative Regulation,* for example, was hotly debated among ministries before finalization. It was pushed through by instructions coming from the top saying "*let's first stop the U.S soybean and worry about the internal conflicts later*" (Wang & Wen December 13, 2002). When speaking at the Central Party Economic Work meeting in November 2001, the then Premier Zhu, Rongji, who sealed China's WTO negotiation, was quoted as saying, "*We should be prepared in our mind after we join WTO…Soybean has taught us a lesson…we never foresaw that U.S soy flood our market, because we dropped our guards…Therefore we did 'mend the fence after losing sheep' and came up with a solution, called Labelling regulation. Europe has taken this measure against American dumping of farm goods….*"[155] Around the same day, a primary party newspaper published a report on the front

[155] Zhu Rongji Jianghua Editting Team, *Zhu Rongji jianghua shilu 朱镕基讲话实录* (Zhu Rongji On the Record) Vol. 4 People's Press 人民出版社 2011, 278-279. See Zhang, Yingchun. 张颖春. Zhongguo zhengfu juece zhuanjia zixun zhidu jianshe yan 中国政府决策专家咨询制度建设研究 (A Study of Institutional Construction of Expert Consultation in Chinese Government's Decision Making) Beijing: China Social Science Press 2016 Page unknow.

page, thoroughly discussing the strategic benefits of precautionary GMO regulation to China's soybean sector and agriculture in the face of WTO competition (Xiang 2001).

Impacts of the Opening in Opportunity Structure

Given the huge momentum from the opening at the top, a highly scientifically complex and development-dominated GMO domain was cracked open for public mobilization. *Two important consequences* of this focusing event on GMO movement include, first, the drastic reduction of prospects of *repression* (high tolerance), meaning legitimacy to activism by non-state actors; and second, increased *facilitation* in media cooperation, governmental support such as judicial acceptance of citizen lawsuits, the availability of state-affiliated networks and organizations, etc.

Despite no strong scientific support and posing challenges to a key state developmental agenda, anti-GMO contention has gained high tolerance in a restricted political environment due to the perceived importance of GMOs in China's adaptation to a WTO world. This granted political legitimacy to citizen activism even to the least likely tolerated international NGO. Greenpeace has a reputation for radical and even violent environmental campaigns; and since it established its Hongkong office in 1997 GP had a record of two attempted protests in China that had greatly irritated the authorities. Yet only one year or so later, GP emerged first in Guangdong and then Beijing in 2002, campaigning on all fronts and appearing in high profile government and media events. A well-known scholar familiar with Chinese civil society at that time commented on this saying "even Greenpeace's entry into mainland China was like a miracle," especially since "it was absolutely forbidden to enter China by Chinese government" (Guo 2004，2005). Notably, one year before setting up their Beijing office, GP waged a media

campaign against Monsanto over its "biological piracy" behavior in patenting a GMO soybean variety originally obtained from China (Pang 2001). Their entry into China was set firmly in the GMO domain.

The unprecedented opening in the political stream (Kingdon 1995) also greatly *facilitated* the anti-GMO activism by the civil society proxy. As pointed out by other scholars, Beijing's new policies are often accompanied by top-down media campaigns and implementation campaigns; and combined with the high salience of GMO issues caused by China's WTO entry, the mobilizing resources of the state became available for anti-GMO campaigns. Rifts among *ministrie*s over turf interests were to be exploited. SEPA and to a degree MOA welcomed allies in propping up their precautionary stances. MOA officials in charge were seeking "different voices" when facing difficult decisions while developmental bureaucrats and scientists dominated the scene (interview Feb 2015). Even the courts were permissible in taking up citizen litigations on GMO grounds. *Media* and particularly the primary central party newspaper were on board from the start. Sources stated that the flagship state newspapers stopped attending the anti-GMO event at around 2007 (interview August 2017) but commercial media and internet media had already picked up the topic and went viral. *State affiliated institutes and organizations* were available to participate as well. Universities and research institutes such as Renmin University and Institute of Anthropology studies at Yat-Sen University involved themselves in public opinion surveys on GMOs. China's giant GONGO representing consumer rights also spoke up and called for actions.

Centralized Output Structure at the top

One relative static aspect of the POS that benefited the proxy civil society GMO mobilization is the *output structure* (Kitschelt 1986). Kitschelt argues that a centralized state apparatus and government control over market participants count as a strong output structure while a decentralized state apparatus and loose grip on market participants demonstrate a weak state ability to respond to social movement demands. China's output structure in the GMO issue area is complicated. China's formal government structure went through decentralization during the reform era (Qian and Weingast 1996); however, GMO politics remains a central government-controlled issue, with most local governments having minimal direct say in the policy-making process. The market of GMOs is under the government's control as well, since first, most bio-tech research institutes are affiliated with and funded by the state; and second, foreign biotech companies such as Monsanto and other MNCs are refrained from directly lobbying the government in China, unlike elsewhere. While the seed market in China is highly fragmented and chaotic (deemed uncontrollable by the state policy experts), the GMO R&D, planting and import approvals are all centralized. This means the state decision at the top won't be vetoed by local governments, even though the implementation all the way down could be compromised in the process. This structural feature proves to be very facilitative for a proxy civil society mobilization in a top-down fashion.

The Proxy Civil Society Actors

With the political opening at the top, a civil society proxy quickly filled in the organizational vacuum and took the center stage of China's prolonged anti-GMO public mobilization. A local branch of an international organization at the heart of global anti-GMO

movement and a top expert of the state environmental protection agency crossed roads and partnered with each other in a fusion fashion, unleashing the mobilizing potential within an authoritarian party state.

Greenpeace was created in 1971 and has grown into an international organization that is comprised of 26 independent international and regional organizations in over 55 countries across different continents, with a central coordinating body, Greenpeace International in Amsterdam. It claims to be a global campaign network engaging non-violent direct actions and its mission is to "change attitudes and behavior, to protect and conserve the environment and to promote peace." [156] Greenpeace started working in China in 1997 (from Hongkong), first in two failed attempts to protest nuclear weapon tests （Kang et al. 2010）. The Beijing and Guangdong Offices of Greenpeace were opened in 2002 (Brooks, 2012). Later, the Beijing， Hongkong, Seoul, and Taipei offices together came to constitute Greenpeace East Asia (Guangdong Office was cancelled at some point before this). As of 2010, its annual budget for China (including Hongkong) was 5 million RMB (Kang, et al. p.135). *Greenpeace* hasn't been able to register as an NGO in China and has been operating as a business entity (interview 2008, 2016).

As an international NGO, Greenpeace was at the forefront of a global anti-GMO movement (Eden 2004). It was argued that Greenpeace, together with a few European-based international NGOs have successfully blocked GMO foods worldwide, despite no scientific evidence of harm (Paarlberg 2014). The important pillar of global GMO governance, the Cartagena Protocol, was supposedly manipulated by the few NGOs and their "energetic campaign of misinformation," especially targeting countries in the global south. Not surprisingly,

[156] It currently hires 2555 full-time employees, and its funding primarily relies on 3 million donors across the world (Greenpeace International).

Greenpeace chose to campaign on anti-GMO themes as one of its primary missions in Beijing. Its goal was global-oriented and intended to outflank the U.S and other countries opposing precautionary GMO regulations (interview with the founding director of GP Beijing Office, 2016). GP quickly adapted to the local political and social environment in China and developed its unique campaign strategies. According to the founding director of GP China, Lo Tse-Ping, instead of a typically confrontational method (Eden 2004), the Greenpeace China office "emphasizes educating and sometimes empowering central government actors with information and skills" (Ellis, 2007) to advance the environmental agenda by strengthening the governmental officials' capacity. And they quickly found an enthusiastic institutional candidate from the Chinese government for their anti-GMO campaign.

China's biodiversity governance was fragmented. While the majority of protected areas were managed by the State Forestry Administration (SFA) and other ministries, the environmental protection agency was in charge of monitoring conservation and negotiation of CBD and its supplemental protocols, including the Cartagena Protocol. SEPA was a weak central governmental agency. Despite its leading roles in introducing the international biosafety and biodiversity frameworks, it has had trouble establishing substantive authority in the field. In the biosafety domain, its effort to push for a biosafety law proved futile; the national action framework developed by SEPA as a key Cartagena implementing mechanism had vague impacts; and even SEPA's efforts to ratify the Cartagena was stalled until it agreed to give up on the hosting status of China's contact station to a much more powerful MOA (interview Feb 2014). When selecting the first fifty members for the National Biosafety Committee, MOA only allotted one seat to SEPA, despite SEPA recommendation to have three candidates.

Entrepreneurial officials within SEPA strove to have more say by expanding SEPA's power on GMOs.

Dr. Dayuan Xue, chief scientist and office director of SEPA's Biosafety Office and the representative of SEPA in China's negotiation for CBD, CPB and later the Nagoya Protocol, quickly discovered the shared interest on GMOs between SEPA and Greenpeace. In the groundbreaking 2001 media report on Greenpeace's investigation of Monsanto's GMO soybean patent scandal, Xue was interviewed for comments in his official capacity. When GP set foot in Beijing in 2002, Xue was on board with it as its scientific consultant; and their cooperation seemed to be also at the institutional level, between GP and SEPA's Nanjing Institute of Environmental Science and an institute at Minzu University researching on national genetic resources conservation (Guo 2004). Xue was the director for the Minzu institute while working in the Nanjing Institute of SEPA. In Xue's account, GP Beijing office was small with 6-7 personnel in total and GP's agriculture team had two staff only in 2002. There were no agricultural experts in GP's Beijing team so Xue took it into his own hands to write research reports on GM cotton in China (Cui et al. 2014). It became difficult to distinguish the voice of SEPA from GP on GMO issues. In a groundbreaking media report in 2004, GP and Xue were literarily speaking side by side challenging the special interests behind scientists' pro-GMO stances. GP's activism kept SEPA's voice loud while SEPA's official status and capacity boosted GP to the national front stage.

With GP's great media campaign skills, SEPA's status and authority, and their high information capacity together, the proxy civil society immediately started to fill in the organizational vacuum for public mobilization.

Proxy Civil Society at Work: Functions

***Representing and Mobilizing societal groups*:** as argued earlier, there was an organizational vacuum in China's anti-GMO campaign, in terms of not only producers and consumers of GMOs but also the environment impacts. China's GMO contestation revolved around cotton, soy, rice, and corn. And the proxy civil society functioned to represent different interests of the public on these crop varieties. It thus cultivated awareness and supports from different groups in society despite no domestic intermediary organizations to represent them on the issue.

Greenpeace's global anti-GMO campaign used consumer activism and purchasing power, especially with a tactic of confronting multinational corporations in labelling disputes (Eden 2004). Before China's official labelling regulation was put into effect in late 2003, GP already launched *labelling* campaigns. It sent out shopper's guides to GM free food, listing food giants who wouldn't commit to labelling in Asia; it tested GMO ingredients of popular Nestles product in mainland China market and broke the test results in the media (2002); it facilitated a high profile consumer individuals' lawsuit against Nestle to raise public awareness of GMO safety issues (2004); and it also pressured two hundred corporations, international and domestic, to publicly commit to labelling in mainland China.

GP campaigned on food safety grounds and conveyed the message about "consumers' rights to know." As early as 2001, it partnered with an institute of a major university in Guangzhou to conduct consumer surveys about GMO safety and labelling issues, the results of which were widely cited in media and policy consultation. SEPA official Dayuan Xue also conducted consumer opinion surveys in Beijing with Renmin University (Wang & Xue 2005).

Underpinning the success of these activities is the professional consumer activism that China was lacking and to a large degree still is an issue today. GP drew on its professionalized campaign skills (Eden 2004) and organizational networks successfully filling in the void. It galvanized international consumer organizations to provide support and enlarge legitimacy. It also invoked the cooperation from *International Alliances of Consumers* and *Hong Kong Consumers' Council*. The former, despite only existing as a remote international organization, conveyed especially high authority and credibility to the Chinese public in the early 2000s.

There was evidence that, in the early stage of anti-GMO mobilization, China's *Consumer Association* was involved in some of the publicity events including the two e incidents at with Nestle (the other one see below).[157] Interviews with GP staff confirmed that the involvement of China's Consumer Association was largely due GP's initiatives to contact and include them in their campaigns (interview September 2016). Despite being window-dressing, the national consumer organization's involvement provided legitimacy to GP's campaigns; and our field research shows that some local branches of the GONGO received the instruction from the national organization, requiring them to actively promote public awareness of GMO food safety issues (Interview Shenzhen, 2008). Guangdong provincial consumer association's engagement of anti-GMO campaign could also be explained by its proximity to Hong Kong, where GP directly waged large-scale campaigns and also waded into its neighboring mainland province as a campaign foothold. China's Consumer Association soon disappeared from the scene.

Pitching in the state concerns about farmers' livelihood, rural economy and regime stability, the proxy civil society also took stance to defend *domestic producers and the environment*. It drove home the message that biotech companies such as Monsanto only intended

[157] It was mostly in the media reports stating the consumers' rights on the food safety and labelling grounds

to dominate the market with their GMO patent monopolies. One landmark GP media campaign was to reveal the interest entanglement of China's bio scientists who pushed for GM crop approval (Liu, 2004). In joint names of BP and SEPA's Nanjing Institute, Xue Dayuan published research indicating that a genetically engineered pest-resistant crop, BT cotton, encouraged secondary-level pests to thrive (Xue, etc, 2002). The study suggested that GMO technologies do not reduce production cost and actually do more harms to both environment and farmers' health by requiring application of other chemicals to combat secondary pests.

To most Chinese people, the first time they were exposed to GMO information was from GP and the proxy civil society. And this can be attributed to the full utilization of the existing media venues by the proxy civil society.

Media Campaigns in Constrained Environment:

As discussed earlier, the political opening at the top created a non-repressive political environment and provided facilitative resources and networks for anti-GMO activism. However, active media campaigns wouldn't be possible without an organization with the world-level media campaign skills and the state actors who were the most media savvy among China's ministries. Together, they pulled off impressive media stunts in a highly constrained media environment. At a time when media had extremely limited sources on GMO controversies, the proxy civil society poured the fuel and lit the fire.

GP charged the spearhead of the anti-GMO media campaign during this period. According to a former GP Beijing employee, Thomas Brooks, Greenpeace China's media strategy includes both *reactive* and *preemptive* actions (2012). GP reacts to public events, largely by intervening in media reports with its opinions and sources (reactive); it also prepares its own

investigative or research report to draw attention to the aspects of the issues from its own perspective (preemptive).[158] On GMOs campaigns, Greenpeace applied both strategies.

Anti-GMO consumer activism first broke out in major cities, mainly in Shanghai, Beijing, and Guangzhou. A small Shanghai media organization *Shanghai Bunk Illustrated* first reported on the *Greenpeace* (Hong Kong) research findings about GMO ingredients in Nestlé's food products and its double standard practice with regards to GMO labelling across Europe and Asia. This late 2002 report immediately brought public pressure on Nestlé's China branch, and it was quickly reprinted by over 100 Internet news websites, 400 domestic and 50 overseas media groups, leading to reactions from international and domestic consumer organizations (Xu 2003). Nestle's China office line was reportedly flooded by consumer phone calls. The "Nestle Incident" continued to develop when a Shanghai consumer sued Nestle on account of a violation of Consumer Rights with regards to GM labelling in 2003. Greenpeace quickly followed up on the lawsuit (interview 2016), providing legal consultation and other services. The GP Beijing director accompanied the plaintiff, citizen consumer Zhu, Yanling's protest trip to the Nestle headquarter in Switzerland. Both incidences drew high media attention. The anti-GMO lawsuit was thoroughly covered by the most popular print media for investigative reports, *Southern Weekly* (Shi 2003). The message was reinforced by the central state awarding Zhu the national title for one of the Ten Individuals of the Year for Consumer Rights Advocacy in 2005.

As the consumer-oriented media campaign unfolded in concert with the administrative need for labeling enforcement, a new battleground was opened up by the proxy civil society

[158] For instance, it released its own research on impacts of coal burning on air quality before the smog became a public topic in Beijing to preemptively lead the public opinion to associate the air pollution issue to coal.

around GM rice development. This happened at a time when the state was about to approve domestic GMO crop strains for commercial planting in 2004.

On December 9, 2004, *Southern Weekly* published an investigative report on the business connections of GMO rice scientists, especially those in charge of GM approval, with private companies and international biotech companies such as Monsanto (Liu 2004). This drew public scrutiny over China's GMO decision making on a scientifically complex issue that was previously highly obscure. The report allegedly "changed the Chinese public perception of GMO development forever, because it for the first time publicly questioned the ethics of Chinese GMO scientists" (Liu 2006). Upon the delay of approval caused by this report, the GM rice seemed to be off the table for the foreseeable future in China.

The proxy civil society was again behind this report. It was a preemptive action from the proxy civil society in directing the public's attention to its campaign concerns. The journalist later admitted that *Greenpeace* approached him for the report and provided the substantive findings of their independent investigation. Before *Greenpeace* briefed him on the complicated GMO issues, he had no clue as to what this was about and what was at stake (Liu 2006). As stated earlier, SEPA expert Xue was featured large in this report, with substantive comments on the domestic risks and interest conflicts related to the safety certificate approval. The author Liu, Jianqiang was nominated for the *People of the Year for Green China* in 2005, an environmental award given by SEPA and the Ministry of Culture and sponsored by UNEP, demonstrating the SEPA's alignment on the issue.

A former GP staff reflected on their campaign success in this episode and maintained that GP's intervention had great timing from a media perspective, as *Southern Weekly* was at its peak

popularity before the (internet based-) new media split the readership from newspapers. He said that their article would not have made such a big impact if it were today (interview 2016).

Watchdog and Whistle Blower: China's anti-GMO mobilization faced an initial barrier, the ala ck of free media and non-profit organizations to serve as the watch dog for in-depth investigations and whistle blowing. For GMO issues, the challenge lies also in the lack of technology and expertise on the media and public side, for instance, in detecting the illegal planting of GMO crops or GMO ingredients in food. Greenpeace acted as the watchdog, constantly blowing the whistle on issues such as the interest conflicts of the bio scientists and policy makers, the detection of GMO ingredients in China's export grain products in European markets, the illegal planting of GM rice, corn, cotton, etc., or the secretive decision by the regulator on granting safety certificate for GM crops in 2009 (interview with the GP staff who discovered the GMO crop safety approval, 2016). Greenpeace China reported these wrongdoings on their own website and in their press conferences, and also directly fed the information to the reporters.

***Issue Framing*:**

The effectiveness of public contestation depends to a large degree on their issue framing (Mertha 2009). When China took the precautionary turn on GMO regulations, the anti-GMO mobilization had to compete with a dominant narrative picturing biotechnology as the absolutely progressive science for humanity's wellbeing. China's anti-GMO framing had to be powerful enough to contest such established framing. While in a standard fashion, the proxy civil society emphasized human health and environmental impacts and demanded consumer rights to know

and risk assessments, it ultimately drilled on the potential public concerns about GMO's human health impact and provided a nationalist narrative about the public interest in terms of human health, farmers' livelihood and national sovereignty.

The nationalist framing inevitably resulted from GP's global campaign positioning. Unlike its attempted nuclear protests, GP's anti-MNCs and anti-US position on GMOs aligned very well with China's new GMO position. Its 2001 GMO battle with Monsanto was framed as against multinational corporations' predation over national biological resources of the global south. Its consumer mobilization was also targeting the MNC's labelling practice. When opposing the developmental agenda of the state on commercializing GM rice, the proxy civil society carefully framed its contestation as a fight for the national interest on behalf of the public. Specifically, it presented the GM rice as an issue of "staple grains of China's 1.3 billion population." It intensified the stakes of the GMO rice as a matter of "changing the grain staple of the nation," emphasizing China's GM rice as the first GM staple grain in the world (Liu 2004). The 2004 *Southern Weekly* piece also warned about the risks of biotech MNCs trapping farmers in China with its patent charges as practiced in other developing countries.

To be fair, national food safety and grain sovereignty framing were not the main framings in the early stages of the mobilization, even for GP. As time went by, a global food crisis occurred around 2007 and China also began to ramp up its GMO industrial development, partly with a US$3.5 Billion investment plan to develop GM crop varieties. Picking up on the nationalist framing and drawing on the research support from another anti-GMO international

NGO, the Third World Network (TWN)[159], GP radicalized its framing of GMO issues along the lines of national grain safety and food security. Using a "grain war" metaphor, GP claimed that China's GM rice was falling into a "trap of foreign patents" (Greenpeace 2008); it soon escalated the issue framing as a situation in which "foreign GMO patents may 'strangle' China's grain sovereignty at the throat" (Greenpeace 2009). This directly fed into a radical-nationalist discourse that would soon explode.

The proxy civil society and its partners challenged developmental framing of GMOs in a head-on fashion, framing the issue along human health impacts, socio-economic impacts, and on environment and biodiversity grounds. Notably, these mobilization framings were consistent with the state precautionary policy propaganda; more importantly, the proxy civil society substantiated these framing with elaborate theories, scientific evidence and information about policy practices elsewhere.

Epistemic Community

One key aspect of the success in anti-GMO mobilization lies in the role that the proxy civil society played as an epistemic community, a network of experts in authoritative positions who shared causal beliefs and norms. China's independent policy research on GMOs safety was quite limited in this stage partly because the precautionary principle had only recently originated from Western Europe during the United National negotiations for biosafety convention. A lot of details of the arguments, analysis and evidence, as well as the legal and political rationales

[159] TWN was one of the anti-GMO NGOs actively blocking GMO in international negotiations (Paarlberg 2014). TWN came to China in the mid-2010s. It didn't register as an NGO and chose to operate the same way as Greenpeace, as a business entity.

regarding GMOs safety and regulations were not particularly clear to the Chinese, even to the policy makers.[160] Meanwhile, the pro-GMO policy experts in top research institutes and ministries were producing information and propaganda strongly supportive of GMO technology (interview of an agricultural policy expert in CAS, 2008). And in a typical *state-corporatist technocratic* environment, some experts who understood risks in GMO production and consumption were hesitant to make public statements out of fear of offending the people in charge of funding and career opportunities (Liu 2004).

McCormick argues that the coproduction of knowledge by civil society organizations is essential to the public contestation in complex issue domains (McCormick 2007). In China's anti-GMO mobilization, GP and SEPA not only produced substantial amount of knowledge, but also created an image of a global anti-GMO epistemic community. Globally, scientific uncertainty of GMO safety as a basis for precaution is still disputed. There is no strong scientific consensus on the negative human health impacts of GMOs. The unanimous epistemic community in Haas' sense does not exist.[161] However, GP and SEPA, together with expert communities within and outside China, were able to act as an information hub to both introduce international scientific research and information to China and produce policy knowledge that targeted the Chinese context. With the UN and EU as the institutional and scientific source of authority, and a reconstructed image of GP as international scientific authority as well, they conveyed a substantial amount of authority and persuasion.

[160] Officials from the top policy organ, the Office of the Central Rural Work Leadership Group, were still keen to understand the basics about GMOs during a high-level consultation meeting in August 2016, Beijing.
[161] Thanks to Professor Peter Dauvergne for pointing this out to me.

GP and SEPA were prolific in knowledge production and brokering. Starting from 2001, Xue and GP produced a journal, *Foreign Biosafety Information*, and delivered the copies to the ministries regularly. The joint research report on BT cotton was also a product of the proxy civil society as an epistemic community. In a multiple-year battle against GM rice commercialization, GP commissioned a research project on the health and environmental risks of China's GM rice by two UK researchers (Cotter & Mayer 2004). Once TWN entered Beijing, its report on complex ownership and policies of intellectual properties in GMOs became a solid knowledge foundation for anti-GM campaigns. GP relied heavily on TWN's research, while TWN remained a shadow actor behind anti-GMO mobilization in China. SEPA's biosafety office, on the other hand, organized an International Biosafety Forum series under a German government sponsored capacity building program starting from 2004. It co-hosted with TWN and a few other organizations, inviting more than one hundred government officials and experts from all over the world and publishing conference proceedings each time. The forum is a knowledge coproducing venue but also provides access to the state.

Gaining access to state decision power: many social movements need state alliances to be able to assert influence over decision making. The proxy civil society had the advantages of wide access to the decision makers due to the way it was embedded with the state. As the chief scientist of SEPA's biodiversity office, Dayuan Xue spoke on behalf of SEPA in the media and sat in the consultative meetings of top policy experts for decisions regarding GMOs. His mixed status as a scientist-official in representation of a central governmental agency garnered him a significant position in the top policy circle and, among all government officials involved in

GMO governance, he was most frequently interviewed. Despite not being selected as a member of the National Biosafety Committee, he was able to make his voice heard.

Several GP staffs I interviewed informed me that GP's reports on GMOs were able to reach the desk of the ministers and key governmental agencies, including the MOA. GP sometimes wase asked to deliver reports to MOA, even though GP and MOA never established a close relationship. They kept a safe distance from each other despite some attempts to bring GP leaders and MOA officials (biosafety office) together (interview September 2016).[162] Since late 2000s, GP and MOA have grown further apart.

Nevertheless, GP China won the NGO of the Year Award and the Best NGO of the Year award in 2005 by *Southern Wind Window* and *Southern Weekly*, respectively. The two media in the southern province of Guangdong were allegedly connected to the liberal factions within the central state. The funding director of Greenpeace China, Lo, Tse Ping was awarded the Youth Leader of Our Time in 2009, by another major Southern Weekly media outlet.

Out of conscious decisions, GP and SEPA representatives formed a mutually benefitting relationship. They were able to fill in an organizational gap, representing and mobilizing societal groups especially consumers but also the producers and environment. The proxy civil society applied reactive and preemptive strategies to pull media stunts, providing watchdog and whistle blowing roles that would otherwise be lacking. While they campaigned on all important grounds, they pitched on a nationalist narrative that eventually radicalized. They were able to gain credibility due largely to a constructed epistemic community image by continuedly conveying

[162] GP maintained very cozy relationship with NDRC on the climate issue.

and producing expert knowledge on the issues. Last but not the least, they were embedded in the state through official status, media influence, semi-official forums and interactions.

By the late 2000s, GP and SEPA representative ended their close partnership but continued campaigning against GMOs (interview August 2016). As the political window was closing, GP was more radicalized in its campaign methods, but its publicity events appeared less in formal party media. GP still remained the key whistle blower and information source for the movement; however, the public sphere has changed for GMO discussions and new actors entered the scene. The effects of mobilization of the proxy civil society in the first decade of the 21st century was manifested in a carnival-like full-blown national mobilization, with broad coalitions of the new actors unseen in PRC history.

IV Development of Anti-GMO Social Mobilization: GMOs Divided China

In late 2009, a *Greenpeace* staff was habitually checking the information about China's GMOs issues in the foreign media and discovered that MOA had secretly approved 3 varieties of GMO crops for safety certificates a few months earlier (interview 2016). The news was soon spread in Chinese media and caused the huge stir in the public sphere in the following year. The movement entered the later stage of mobilization after taking off in the early 2000s.

We treat the development of anti-GMO mobilization from 2010 on as the second or later development of the movement, in distinction from the emergence stage earlier on (McAdam, etc.

1996), and this periodization is based on a few indicators. First of all, the *political opportunity structure* was different from the emergence stage. The previous window of opportunity closed off and the state pushed through its developmental decisions on GM crops; second, the *mobilizing structure* has changed and varied domestic emerging groups were ready to join the movement; third, the level and intensity of public contestation and mobilization was much higher in this stage than early on. The media coverage of GMOs reached a new height in 2010 (Figure 2) and public support for GMOs dropped to a new low (Figure 1). And the trend continued to a climax in 2013 and 2014, and then started to decrease after 2015. Last but not the least, the issue *framing* has radicalized compared to the emergence stage.

Post-Proxy Civil Society Political Opportunity Structure and Mobilizing Infrastructure

Civil Society Proxy Faded Away

GP and SEPA's campaigns started shortly after China's entry into the WTO. However, the political momentum lost out in the mid-2000s when the strategic significance of precautionary regulations against GMO faded and the regime ramped up its push for development through science and technological advancement. In 2006 the government issued a mid-to-long term plan to develop GMO technology with big funding. Under this circumstance, the state media showed their change of priorities. GP and its partner's press meetings on GMOs were no longer attended by the top state media outlets such as *People's Daily*, *Science and Technology Daily*, *Guangming Daily*, along with others (Interview 2016). And the formal partnership between SEPA's biosafety representative and GP ended around 2005 (interview 2018). The proxy civil society coalition seemed to be fading away. And during this relatively

quiet time, the Biosafety Committee secretly approved the safety certificate application of three GM crop varieties.

New Opening in the Political Opportunity Structures: one significant development in China's political stream (or POS) by the end of the first decade of 2000s was the rapid surge of radical ideologies. Ten years into WTO, China had already brewed a mixed set of radical nationalism, populism and neo-Maoism among intellectuals and in the public (Xu, 2010; Zi, 2010; Ma 2011; Beijing News 2010; Cheek 2018; Blanchette 2019). It is hard to pin down what they advocated in common as a mix of "Hard left," "fringe left," "ethno-nationalist" and even fascists, but they were anti-West, anti-America, anti-capitalism, anti-establishments, anti-liberal and statist. Many public intellectuals were voicing their concerns of this trend in 2010. Zi Zhongyun, a renowned scholar, warned that the radical nationalism was becoming too rampant and could possibly lead to fascism (Zi 2010). And Li Zehou, an established left-leaning intellectual, warned if nationalism and popularism joined hands in China, it would lead to state socialism. Under this ideology, the state would wage wars outwardly and enforce dictatorship to its people (Xin Jingbao, 2010). The fact that many prominent liberal thinkers from different strains were all calling out on the danger of these ideological trends in 2010 indicated the high heat the leftist trends were generating.

Certain Party elite's embrace of radical ideologies was an especially conspicuous development, represented by the aspirational princeling and mayor of Chongqing, Bo Xilai, who was very close to grabbing the party leadership but lost to Xi Jinping (Fewsmith 2012). Bo's campaign to power was through a Chongqing Model that mainstreamed the populist and Maoist ideology. Xi, after defeating Bo in 2012, demonstrated a similar tendency to lean on these radical

ideologies with slightly different strains (Blanchette 2019; Zhang 2020). This political realignment provided additional political legitimacy for issue framings of GMOs on the grounds of national interests, food sovereignty and food security. The leftist elites within the state, especially those in China's highest political deliberative organs and the legislative body, the NPC and CPPCC, as well as those in the military endorsed the anti-GMO discourses and provided access to decision making. They became the allies to citizen activism rising from the left and the middle on the anti-GMO front.

The mobilizing infrastructures: by the time of 2009, Chinese *public opinions* toward GMOs have undergone a sea change from a decade ago. A survey of 1,212 people in Zhejiang Province found that 90% of the respondents have heard of GMOs, despite only 53% of them being able to give correct answers to GMOs-related questions (Lv and Chen 2016). 69% of the respondents agreed that GMOs are associated with certain risks, dramatically increased from 34% in 2003. Public support of GMOs, however, still remained significantly high, ranging from 42% to 92%, depending on the survey (Lv and Chen, 2016; Cui and Shoemaker, 2018). This public opinion condition proved that the early mobilization had notable effects in informing the public; however, partly due to the predominantly positive media coverage, at least in the official media (see Figure 7.1), the public not only continued to lacked a sound understanding of GMO information, but were also mostly optimistic about the benefits of the technology.

China's *formal organizational* scenes haven't changed drastically over the first decade of the 2000s. Consumer groups were still monopolized by a national GONGO and its reputations had even taken a dramatic dip by the end of the decade. Lv and Chen's survey find that respondents' trust over consumer organizations as a source of GMO related information had a

29% decrease from 2003, the deepest drop in the list of sources in the survey. Other than the national and a provincial soybean association in Heilongjiang, farmers are not particularly involved in organizational fashion. China's anti-GMO movement still faced the infrastructure deficits in terms of movement organizations. However, as a result of the early mobilization, the public and emerging social groups had become alerted to the controversies, civil society actors were ready to take actions, and social media and internet provided additional channels for communication.

Media and Internet

GMOs became the beneficiaries of very lively and diverse media reporting in the first half of the 2010s. Both sides (pro-GMO and anti-GMO) found their voice in the Chinese press, but the state media trended toward more pro-GMO and thus more restrained reports, while commercial and social media feasted on more sensational reports, mostly anti-GMO.

As argued earlier, despite an abrupt turn in adopting precautionary regulations, China remained committed to a developmental agenda in agricultural technology. Despite the delay of a safety approval in 2004, the government put agricultural GMOs as a major program in science and technology in its medium-to-long term plans in 2006 and put this into effect in 2008. Between 2008 to 2010, the No. 1 document of the central party of the year all emphasized the resolve to speed up the development of new GMO varieties. The central government media followed the official stances and reduced their enthusiasm in covering anti-GMO news. One source stated the primary media stopped attending anti-GMO events around 2007. Consistent

with this central propaganda line, was the conscious efforts to engage public science education on GMOs, primarily by MOA. A portion of the national funding for the agri-GMO major program was dedicated to public science education. Starting from 2011, MOA, primarily its biosafety office, waged big campaigns on GMO public education, including GMO safety literacy training workshops for media in a national scope. In 2015, the central party made the GMO public science education a priority to the national government.

Still, this did not forbid the national primary media coverage of GMO controversies. The national Chinese Central Television (CCTV) offered coverage to both sides, showing both anti-GMO military propaganda programs and MOA's pro-GMO educational campaigns. Although TV stations at the provincial levels still followed the CCTV report lines, some of them took the liberty to broadcast the most sensational and radical anti-GMO programs.

Against the increasingly muted central party media coverage, more commercial oriented and internet media did not restrain themselves from exploiting the controversial topic for viewership.

Social media particularly helped this information diffusion and exchange. Public opinion mobilization during Cui Yongyuan's debates with Fang Zhouzi and his Two Sessions interviews mostly relied on the social media, *weibo*, for the quick spread of the message. At the same time, the Chinese media and government have paid increasing attention to public opinions, through analysis of Big Data. During high profile events such as the Two Sessions, the media reports on the ranking of popular topics and key words, reinforcing public interest in hot topics such as GMOs.

A 2016 survey of 2,200 people showed that 69.3% of respondents acquired information from the Internet, compared to 45.3% from television, 27.8% from books and periodicals, 22.8%

from communication with friends and families, and 9.6% from public lectures (Cui and Shoemaker, 2018). The free reports and discussion of GMO issues on the internet greatly increases the public exposure of the debates.

Under the changing mobilizing infrastructure and political opportunity structure, China's anti-GMO mobilization took off and demonstrated new traits in the development stage, once it was triggered by the state's GMO safety decision. We find strong *double clustering effects* in the mobilization process. In the process of *ideational clustering*, diverse dimensions of the norm were explored with radically nationalist and populist tones taken up in great fanfare not seen in Korea or Japan. In this process, the GMO issue frames evolved from a trade issue to food safety, national grain security and sovereignty and eventually, racial and national security. In the process of the *dynamic clustering* in which existing sub-state and non-state actors and emerging social groups came together to form a *de facto* anti-GMO coalition, China's cross-cutting coalition had radical networks and military officers also unseen in Japan and Korea.

In this phase, while Greenpeace continued its campaign against GMOs, many of the earlier functions of the proxy civil society were performed by other civil society actors in the public sphere. Its function of *representing and mobilizing social groups*, for instance, has been taken over by varied individual actors and informal activist groups. Public intellectuals, media celebrities, military officers, leftist activist networks, lawyer groups and producers' organizations all entered the stage, speaking to and for their targeted publics. Unlike the typical movement process of this phase in which formal social movement organizations （SMOs） are created to sustain the movement (McAdam, etc.1996), the anti-GMO mobilization remained revolving

around individuals and embedded in informal associational networks. As discussed above, *Issue framings* have also gone out of GP's hands. GP continued to play the roles of *watchdog and whistle blowers* (such as in the Golden Rice scandal in 2012), but many others joined GP in exposing violation of regulations such as illegal planting, improper labelling and administrative wrongdoings in approving import and safety certificates for GMO products. Even the most significant role of the proxy civil society as the *virtue epistemic community*, has been shared by individuals and intellectual communities mostly from the leftist networks but also from academia, who directly brought in alternative sources of information from international community.

In this process, GMO contestation entered mainstream politics by anti-GMO activists and their state allies into the state's legislative consultation organ, NPC and CPPCC. In 2014, the politicized debate forced the state to quietly drop its plan to push through commercialization of the three GMO crop varieties approved in 2009.

Radicalized discourse and Ideational Clustering

Human health impacts and social/economic impacts of GMO imports/products were two constant themes of GMO media discussions in China. However, they were subsumed under a new narrative about the secret agendas hidden behind GMO commercial development and consumption in China. Chinese discussions of GMO safety now took a radical and left turn. Emerging in this stage was a framing of GMO foods as a bioweapon for genocide of Chinese

people[163] and global capitalists' tools to destroy China's economy an overtake its food sovereignty.[164] These conspiratorial and ideologically charged theories spread quickly and fed on viral rumors that aroused the deep fear of ordinary Chinese people.

The popularity of the food sovereignty framing can be traced to the 1990s with the controversial publication *Who Will Feed China* (Brown 1995) that was made known to China in a populist bestseller *Behind the Scene of Demonizing China* (Li et al 1996). However, the nationalist theme and sovereignty framing also came directly from GP's campaign in China from the outset. Its debut media campaign in Guangzhou targeted Monsanto for its predatory piracy of national bio resources of a developing country. Joining the Third World Network (TWN) in 2007, GP drilled on the issue of foreign ownership of China's GMO crop varieties in 2008 and 2009. It explicitly pointed fingers at MNCs for their evil intentions to harm Chinese people. It openly resorted to nationalist language and securitized the GMO issue with a geopolitical framework. Its messages were not missed by the keen ears of nationalist audiences. When a national TV celebrity made his anti-GMO cases, his story about the evil patenting of a wild soybean variety naively gifted to Monsanto by the Chinese people had a clear origin from GP's 2001 campaign.

[163] It is not clear when the conspiracy theory about secrete plots of Free Masonry was introduced into China, but it succeeded in infiltrating the mind of some top thinkers in academia, think tanks, and even the military around the time of 2010. According to this theory, the Chinese population is the target of a genocidal plan of a small number of rich and powerful elites in a secret society, Free Masonry, hidden around the world. A new left thinker He, Xin published two books on the topic in 2011 and 2012. In a more general version, GMOs were deemed a weapon of "unrestricted chemical and biological warfare" by some developed countries, international organizations or multinational corporations against the population of the developing world. This idea was popularized by Chai, Weidong in his "shenghua chaoxian zhan: zhuanjiyin shipin he yimiao de yinmou." Beijing: China Development Press, 2011.

[164] According to this theory, GMO is a strategic weapon of the U.S to achieve global dominance.

By 2010, when the Red Second Generation started to collectively voice their concerns on GMO control to the CCP leaders during the annual Two Sessions of NPC and CPPCC, the multiple threads of conspiracy were already intertwined in their narratives, taking GMO issue as the life-or-death matter of national security and even of "racial security" (*zhong zu an quan*). The relatively rational version of them, the GMO as a weapon for a food war, seems to manage to migrate from the marginal discourse to the center of decision power. In 2013, China issued the New National Strategy on Cereal Security, demonstrating that the novel concept of cereal security (*zhuliang anquan*) was fully mainstreamed in the state discourses.

The politicized GMO discourse also ran deep in the military think tanks and national security academics. Through a leftist-red second generation-military network, this discourse gains legitimacy in the state media and popular media. At its peak time, the radicalized GMO discourse hijacked and overwhelmed the developmental agenda of the party state. One lasting effect of this radicalization is that biosafety issue has obtained a strong geopolitical and strategic connotation in the official Chinese language. A recent survey finds that 13.8% respondents agree that "GM technology may be considered as bioterrorism to China" (Cui and Shoemaker, 2018).

In addition, debates about safety issues around a novel agriculture technology soon brewed rumors about GMO's impact on human health and the environment, probably thanks to the availability of modern communication technology tied to the Internet. There were a few accounts of animal abnormality, decreasing male fertility and cancer induction attributed to GMO planting and consumption, published in media and widely circulated on the internet.

The government responded by sending secret investigative teams to the reported sites or publicly denouncing the widespread rumors. One journalist at Xinhua News Agency reported on

animal abnormality in suspected illegal GM corn planting areas. He was quietly laid off from the newspaper (Interview 2016). However, the rumors continue to circulate on social media. This fits in a particular ecology of online rumors in China. A survey conducted by China's Academy of Social Science showed that the 45% of internet rumors in China concern food safety (Tang et al. 2016).

The idea that GMOs is an imperialist weapon against China was initially derided and ridiculed by scientists and their friends. Yet the patriotic undertone of this narrative is so powerfully appealing in an increasingly nationalist discursive environment that over the time, the most articulate pro-GMO actors in the public sphere started to exploit that nationalist framing, but only to turn it around and blame their unpatriotic anti-GMO opponents for standings in the way of their endeavors in enhancing national sovereignty and national security by getting ahead of the enemy with GMO technology.

Dynamic Clustering: Cross-Cutting Coalitions of Social Groups and Individuals

Leftist intellectuals, Maoist activists, and Neoconservative Military Officers

China's leftist intellectuals are attracted to GMO debates often out of social, economic, and political concerns instead of or in addition to environmentalism. In their views, GMOs represent an imminent threat from the un-reigned global capitalist power that needs to be exposed and countered. Many of those who spoke out are very influential in academia and amongst the public. High profile economist Larry Lang (Xianping Lang) from Peking University and Hongkong-based Political Scientist, Shaoguang Wang, for instance, both have been

advocates for the anti-GMO causes, and Larry Lang was a particularly popular public figure on Chinese mainstream media.

Maoist activists, or more generally, the populist-nationalist activists, overlap with leftist intellectuals to some degree but stand out for their nostalgic visions of a fair and just Maoist society, and often times in defense of the Cultural Revolution (Interview 2015, 2016). [165] Many elitist activists are self-published authors. Some are marginalized intellectuals who are retired professors or engineers pursuing social, philosophical and political theories in fields beyond their training expertise. Some in older generations among them were tied to the Red Guard, some being student leaders and very familiar with the elitist politics of the Cultural Revolution in the late 1960s (interview August 2016). Some of them are from privileged families in Beijing, while others are grassroots activists connected through the Internet. One prominent activist was the daughter of one of China's most respected liberal intellectuals, Gu, Zhun.

Among the activists, there were also young professionals in their twenties or early thirties (interview 2015, 2016). Some of them were highly exposed to the radical anti-liberal and anti-western cultural trends in the late 1990s. One young engineer published a book titled "It is not us who are at fault; it is the world." (Yin 2015). Its critique of the American hegemony ran in the same line as the previous popular best sellers such as *China Can Say NO*! (Song etc.1996), *China Is Not Happy* (Song 2009) and *Behind the Demonetization of China* (Li et al, 1996). A young journalist Jin, Wei ran at the forefront of anti-GMO media campaign with some very popular case reports of animal abnormality caused by illegal GMO corn planting. With no exception, these activists learned about and got involved in GMO campaigns at around 2010 (interviews summer 2016).

[165] I was informed that China's Leftists at that time must meet three criteria on support of Maoism, endorsement of the Cultural Revolution, and anti-GMOs (interviews August and September 2016).

These social groups and networks were active in anti-GMO mobilization in both online- and off-line fashions. A lot of GMO activists were regular contributors of a leftist web community, the Utopia (*wu you zhi xiang*) and similar websites such as Red Song Club (*hong ge hui*), both being some of most popular in years leading to Xi's assumption of power. Many of them run blogs and websites devoted to anti-GMO campaigns. There used to be many anti-GMO activist groups on a social media platform, QQ. In recent years, Chinese microblog, *weibo* and popular social media *wechat* have also become major outlets for their messages （interview 2016）. Activist writer Zhang Hongliang maintained an active wechat account as a publishing venue; and journalist Jin, Wei created a public account on wechat on GMO information (interview September 2016). The activists are well connected with each other and coordinated for actions.

Through these networks, these activists waged campaigns. They snuck in anti-GMO publications (pamphlets and DVDs) to the sympathetic representatives in China's annual NPC and CPPCC sessions in spring 2010 (interview 2016); some activist parents organized a school parents alliance called "Alliances for Replacing GMO Cooking Oil" in demanding public schools in Beijing to replace GMO cooking oil since 2011 (interview 2017); over the years, they kept filing information disclosure requests to MOA and MIH, demanding information on GMO safety approvals for imports and domestic cultivation; they have filed a couple lawsuits against MOA for information disclosure, and the cases went through public trials with one winning and one loss (interview 2016). Most surprisingly, they have organized regular protests and public demonstrations at MOA and the headquarters of Monsanto China since the 2013. Public events about GMOs such as GMO promotion affairs and consultation symposiums were often interrupted by burst of protests from these activists. Their activities, despite being critical and

challenging the party policies, have been tolerated while the right advocacy lawyers and feminist activists were arrested and jailed. With some online venues being shut down after the loss of their political patron Bo Xilai in the power struggle for party leadership, some activists reported restrictions on their publications such as weibo posting; however, no one was under political prosecution or harassment (interview 2016). To be sure, pro-GMO scientists were taking countering collective actions such as the sample tasting of the Golden Rice by a thousand pro-GMO volunteers.

The military's participation in anti-GMO campaign is perhaps the most surprising development. It appears to result from the diffusion of ideas from a geopolitical account of global GMO affairs, one key influence being the writing of an American geopolitical writer Frederick William Engdahl, whose publications on vaccine, seeds, and GMOs were well translated and published in China. A few military generals (most civilian officers) spoke out in public and at the national representative organs, NPC and CPPCC, on GMO issues. Their views are also frequently published in the military institutes, forums, and websites.

Celebrity Debates: Fang Zhouzi vs. Cui Yongyuan

GMO debates have become intense and highly public, open and free, beyond what we can imagine for an authoritarian regime. However, what drives home the idea about GMO issue as a food safety and citizens' rights to know issue is the activism of the media celebrity Cui Yongyuan, the then CCTV host and producer. His debates with a pro-GMO scientist writer, Fang Zhouzi, also a public intellectual, drew the attention from national audience in 2013. The debates started on the *Tencent Microblog* and went through five rounds of exchange regarding the

qualification and rights to discuss scientific issues as well as the logics and manners in discussions.

Social media quickly followed up on the trending topic. In just a week after the debate started, one Tencent Microblog topic on whether you want to eat GMO foods everyday drew 850,000 comments. Other social media had similarly trending discussions. Traditional media including the most authoritative official newspaper also followed suits in giving in-depth comments to the GMO topic. Social media conducted polls and their results show the overwhelming support for Cui and opposition to GMO foods (Shenzhen Guangdian, 2013).

The influence of this debate runs deep. Both Fang and Cui are internet celebrities, especially Cui. The total number of their followers exceeded 20 million at the time of the debate. Cui's popularity made him a perfect candidate for the public spokesman on GMO concerns, especially given that he is also a representative at CPPCC. He has brought proposals on GMO safety and regulations to the two sessions every year since 2014. The annual two sessions became a center stage for public debates over the GMOs. Cui also took a tour in the U.S in making a documentary about GMOs.

Rights Advocacy Lawyers: Public Interest Lawsuits

In 2014 a lawyer in Yunnan filed lawsuits against the cooking oil companies for their failure to label GMO ingredients according to the labelling laws and accused the companies of violating consumers' rights to be informed about such content. The action was followed by over 70 lawyers nationwide, who filed similar lawsuits in different jurisdictions across the country. The collective action in public interest lawsuits was organized through lawyer's networks and drew broad media attention. A Beijing leftist anti-GMO activist I interviewed turned out to be a

lawyer who defended the sales manager who accused a famous cooking oil company of using GMO soybean for their product, illegally. During my field research in Beijing, I attended a court trial of a GMO case. The GMO activists from local Shanxi and Beijing sued the GMO office of MOA for refusing to disclose a document it sent to Ministry of Education overriding MOE's GMO ban for cooking oil for school students' canteen (interview 2016). Such lawsuits raised the public awareness by drawing media attention. A deputy director of the biosafety office in MOA attended the trial as the defendant.

Local Dynamics: Local Professional Industry Associations and Local Governments

Soybean sector is where industry associations and local governments became most active in protecting local interest against GMO domination. The Soybean Association in Northeastern Province of Heilongjiang, for instance, has been vocal in the national GMO debates since its establishment in 2013. Its director published a research report, claiming consumption of GM soy oil contributed to stomach cancers. The report wasn't done with scientific rigor, mostly relying on intuitive associations of rough data. However, this "official" report still had the effect of adding negativity to public perceptions of GMO safety. Adding to this dynamic, was some local governments' bold and controversial moves to ban GMOs in order to protect local non-GMO agricultural interests. In 2016, Heilongjiang provincial government issued a food safety regulation, banning cultivation of any GMO crop varieties in the provincial territories. It wasn't the first local government to ban GMO crop cultivation. In 2013, the city of Zhangye in Gansu province, the famous seed producing base for the country, banned the production of all GMO seeds.

Institutionalized Contestation and Deliberation at the Central Deliberative Organ

Starting from 2010, GMO debates have entered official institutional channels for deliberation. Theirs entry into institutions greatly enhances the issue legitimacy and issue priorities in the party agenda.

Prior to the annual sessions of 2010 NPC and CPPCC, an open letter was sent to the NPC and released to the media. The letter was signed by 120 prominent Chinese individuals allegedly including Chairman Mao's daughter, demanding a halt to GMO commercial development (Tian 2010). Similar proposals were submitted to CPPCC as well. Red Second Generations took the lead to organize the petition, and one leader claimed that China's GMO crisis had reached the level of "national subjugation and genocide" (*wang guo mei zhong*). A source claimed that there were 15 total proposals on GMOs in the Two Sessions.

In reaction, pro-GMO scientists and MOA spoke out in defense of GMO safety. Nevertheless, MOA soon waged a law enforcement campaign on seeds, on the account of reports and rumors about illegal breeding, selling and planting of GMO crop seeds in the market. In the end it eliminated many seed varieties from the official seed catalogue, allegedly due to their GMO nature. Xianyu, a popular variety of corn seed, was at the center of many GMO scandals, being accused of being a GMO variety. In this round of seed list adjustment, Xianyu was quietly taken off the officially recommended list.

GMO debates continued unabated in all subsequent NPC and CPPCC sessions after 2010. In the 2011 sessions of NPC and CPPCC, the biggest motion was a proposal by 439 NPC representatives to enact draconian criminal laws punishing violations of food safety. This

proposal demanded tougher laws to prevent crimes in food safety that harm public health, especially those crimes that caused changes to human genes for generations to come. The connection of this proposal to the radical-leftist political camps is obvious, given the author being princeling Bo Xilai's top aide and the one that caused his spectacular downfall a short time after.

Public opinion over GMO reached a climax in the years of 2013-2014. In 2012, Greenpeace exposed the unethical human experiment conducted by American universities on Chinese school students. American researchers used local Chinese students to test the vitamin-added GMO rice. The "golden rice" scandal partly led to Cui Yongyuan-Fang Zhouzi debates in 2013. The new media amplified their influences. According to an online survey during the Two Sessions in 2014, food safety issue was ranked second among all the issues of people's concerns, rising from the 9th in 2011.

Public mobilization and its institutionalized expression within the party-state might well explain MOA's decision to let the three safety certificates of GMO grain varieties expire by the end of 2014. GMOs remained to be a focus of the 2015 Two Sessions.

In the short-term, this tug-of-war between two great coalitions has generated policy paralysis and limited the traditional actions of the Chinese state as a developmental state. On the other hand, current GMO policy may actually have converged to a sense of equilibrium, given the current position of public preferences.

Growing Out of An Equilibrium? GMOs in Xi's Era

The nature of such large political coalitions has put pressure on political leaders. Xi Jinping took the power while the country was at the peak of a public opinion war on GMOs. He eventually developed a three-fold strategy.

First was Xi's regime's emphasis on *safety management*. In a 2013 speech, Xi demanded the R&D of GMOs "must ensure safety" (Xi 2013 in Chashiju 2014). Probably reacting to a corruption case with GMO research funding by a key bioscientist at CAS, the national funding for Major Programs in GMOs was cut down from 2 Billion RMB to 0.4 Billion in 2013, the first year of Xi's reign (Sheng & Wang 2014). The government also straightened out law enforcement issue, leading MOA to take crackdown actions after the media had exposed illegal GMO seeds and planting.

Second, Xi's regime continued to pursue a developmental policy. While demanding safety measures, Xi also urged for "*autonomous innovation*" and "*occupying the strategic highland of GMO technology*" (Xi 2013 in Chashiju). The developmental push picked up steam around 2015, especially with the 13th Five-Year plan that followed Xi's instruction slogan of "bold R&D, cautious *application*" (Beijing Shangbao 2016, italicized by author). The 13th Five-Year *Science and Technology* Plan laid out a roadmap for China's GMO industrialization from non-food to non-direct food and then food for direct consumption (yicaiwang 2016). The focus of the 13th five years was on cotton, corn and soybean and, in echoing that, China issued the safety certificate to corn and soybean for potential commercial cultivation in the concluding year of the 13th five-year plan, 2020.

On the third prong, the state strengthened its *media control* and *pro-GMO education and propaganda*. It was widely noticed that the state committed to public science education on GMOs by its move to write it in the most important party rural work document of the year, the

central party No. 1 document in 2015 (Ou 2015). With the overall increasing censorship especially on the internet, space for anti-GMO discussions was drastically reduced. With the quiet expiration of the three safety certificates in 2014 and the fading out of media effects stemming from the Cui-Fang debates, public attention has shifted away from GMOs. This is indicated by the silence from the public on China's GMO concessions in the US-China trade deal in 2019 as well as the MOA decision of safety approval for GMO corns and soybean in 2020. Biosafety issues returned to the headlines again due to controversies in other biotech fields, the first being the CRISPR gene-editing baby experiment scandal in late 2018. An urgent call for biosafety law enactment resurfaced at the outbreak of global COVID-19 pandemic in 2020.

Meanwhile, trade pressures continued to build up. Despite an overwhelming amount of grain imports, China's import approval of agricultural GMOs continued to be nuisance to its trade partners. In 2013-2014, China embargoed US corn ships on the ground of illegal GMOs. US-China summits regularly mention a commitment to progress and more science-based regulations in their communiqués (cf. the September 2015 joint China-US declaration). U.S. industry groups have "previously criticized China's approval process for biotech crops for being highly opaque and unpredictable" and "notoriously convoluted." It allegedly took an average of 6 years for a US application to know the decision for approval by Beijing, without much meaningful communications during the process. GMOs also featured big in the phase I of a 2019 US-China trade deal between the Trump administration and China. In the trade agreement, China promised to speed up the approval process to "take less than 24 months from formal application submission to final decision on a product" (Bisio et al, 2020).

Conclusion

Although there is nothing automatic, a developmental authoritarian state may choose to invoke a global environmental norm for tactical reasons, particularly when engaged in a difficult trade negotiation process or to support a particular domestic interest. What matters is that the global norm has entered the *repertoire* of relevant arguments used on the international scene. At this stage, the state chooses to give flesh to that norm, despite the lack of domestic civil society involvement, because it is useful for other goals. The use is purely *instrumental*. As the state publicly explains the use of this new norm to its domestic audience and demonstrates genuine intent to its trade opponents, it imports *external legitimacy* to the home scene.

For international environmental norms to "internalize" or institutionalize within a developmental authoritarian regime, the anti-GMO mobilization indicates that devoted sub-state actors with personal and institutional interests closely aligned and highly professional international organizations are both necessary in order to overcome the organizational and informational deficiency. However, the civil society proxy impacts are contingent on the context. Both phases need imperative political legitimacy, either from key national economic policies or from dominant party ideological trends.

Our case of precautionary norm internalization represents an extreme situation when the grounds for internal norm diffusion within the state faces "the double deficits," i.e., a public opinion field that is indoctrinated with scientism and lacks awareness of the global environmental norm, and an organizational vacuum that the mobilization from civil society has no collective action venues or mobilizing agents. A combined theory of agency and structure allows us to unpack the process in which a proxy civil society develops out of the close coalition

of state actors, an international NGOs and media, thanks to the grand political opening at the top that permits legitimate campaigns and mobilization. This not only thwarted pro-GMO policy proposals but laid groundwork for continued mobilization by different coalitions and social groups when the legitimizing political opportunity lost momentum and the original coalition broke down and took a back-stage role. This time, or during the development phase of the anti-GMO movement, the political opportunity structure was opened from an ideological ground while the national politics took a left turn. The proxy civil society ran rampant with radical nationalist framings, but a right-based consumer campaign was also on the rise.

A theory of proxy civil society is unlike the Fragmented Authoritarianism 2.0 (Mertha 2008) and the state-embedded activism (Edmonds and Ho 2008). In anti-GMO campaigns, the independent international NGO worked directly with the state actor, waging a widely supported broad social movement. It is also a type of citizen activism unlike the NIMBYism in local protests in recent decades (Johnson 2010; Lang and Xu 2013; Gu 2016) for being broadly spread and with coalitions embedded in the central party state.

Social movement impacts are hard to generalize or predict, and a proxy civil society is no exception. We do have theory informed empirical evidence about the policy impacts of the proxy civil society at different stages of the decision-making point regarding China's precautionary stance. It is safe to argue that without the mobilized opposition of a civil society proxy, the developmental state would have approved the commercial cultivation of multiple grain varieties, in 2004 and 2014 respectively; and the labelling regulation would not have been enforced to the degree it is today.

Mobilization by a proxy civil society has its limitations. To enable the proxy, the state had to do the heavy lifting at first, creating an unprecedented level of legitimacy and incentives

for officially sanctioned campaigns in the emergence stage. The conscious framing in a geopolitical dimension derived from international positioning paved the way for radicalized discourse and actors that overshadowed the environmental norm concerns. And due to the lack of institutionalized access and accountability mechanisms to decision making, the movement had to continue mobilizing to prevent the norm reversion.

In modern industrial society, especially in authoritarian developmental states where decisions are made by state technocrats in a centralized fashion, the environmental risks can only be overcome by a "subpolitics" of bottom-up grassroots civil society activities (Beck, 1992, 1996, 2009). Our research demonstrates that in the tough environment of an authoritarian developmental state where normal civil society organizations and the free flow of information are not available, subpolitical contestation and mobilization can still take place, but not without unprecedented top-down mobilization with dedicated professionals from both within and outside of the state.

Conclusion

As significant as it seems to be, China's rise as a global economic and political superpower coincides with a deepening global environmental crisis, both unparalleled in human history. Trailing behind climate issues, China's biodiversity protection has emerged as a leading topic of global governance amongst a trade war and a global pandemic.

As China rolls out policies and initiatives that are diplomatically and rhetorically ambitious, from raising the concept of an Ecological Civilization to laying out the One Belt One Road Initiative or leading the Paris Climate Accord, we have had very limited knowledge as to how these decisions have been made, where these ideas came from, what mechanisms have been at work, and what political actors have been involved in the process. And consequently, our understanding of the policy implications and outcomes is impeded by our inadequate ability to decipher the decision-making process within the Chinese state. If we are to effectively work with China on the global environmental problems, we need to better understand how China works internally. My dissertation takes this issue seriously and investigates how the authoritarian state makes decisions in complex and uncertain environmental policy areas, using biodiversity conservation and biosafety regulations as the cases.

In this concluding chapter, I argue that China has entered a new era of biodiversity conservation, China Conservation 2.0. And recent policy developments on agri-GMOs and

biotechnology legislation indicates that China continues to maintain an equilibrium in biosafety precautions. Following that, I recount the theoretical explanations and empirical findings of the dissertation. Section three discusses the theoretical contribution and implications of this dissertation in three aspects of authoritarian responsiveness; and section four dwells on the implications of the research for China's future in biodiversity governance at home and in the world at large.

Looking Back from 2020: Biodiversity and Biosafety in China

Almost thirty years have passed since China joined the United Nation's Convention on Biological Diversity (CBD). During these decades, China expanded the size of its conservation areas more than one hundred-fold while failing to address increasingly outdated and ill-fitting conservation institutions.

This is no longer the case. Riding on a surprising reform to create China's own national parks, the party decided to build "a protected area system with national parks as the leading component." The reform decision was followed up with an unprecedented restructuring on natural resources administration at the State Council level in 2018. In a swift act, China put all nature conservation systems at the top level under a newly created national agency in charge of all protected areas. As a forward-thinking endeavor, the state has made a roadmap and laid out step-by-step plans for the completion of the construction of "a protected area system with Chinese characteristics" by 2035, the scale and administration of which would "meet the world advanced standards" (Hu, 2019).

During this reform, the state has created ten national park pilots at some of the most valuable biodiversity sites in the nation. As we speak, most of the pilot national parks are undergoing the last rounds of assessment and approval before their formal debut as the first batch of China's official national parks by the end of 2020. Within these national park pilots, protected areas of various types have been connected and put under a streamlined administration. The Giant Panda National Park, for example, covers a region across three provinces and over seventy nature reserves and many other conversation areas, tourist destinations and cities, with a total area three times bigger than the U.S.'s Yellowstone National Park. The park has now set up the administration at Chengdu (2018) and three provincial level Giant Panda National Park administrative bureaus in Sichuan (2018), Shaanxi (2019) and Gansu (2020)[166]. Both the Sichuan and Shaanxi administrative bureaus have established the local division offices on sites. The Giant Panda National Park Administration has completed the overall planning for the park (Shi September 23, 2020). Similar motions have been taking place in other pilot National Parks as well. In charge of all protected areas, the National Administration of Forestry and Grasslands has made headways in setting up zoning standards and protected areas technical standards; and last but not least, the government is making moves in legislation on national parks and protected areas respectively, presumably within a coherent protected areas framework.

Despite foreseeable challenges and inevitable compromises down the road, this reform has already exceeded the expectations of the most devoted PA reform proponents like Dr. Xie,

[166] The Gansu Giant Panda National Park administrative bureau overlaps with the Qilianshan National Park, another national park pilot located in Gansu province.

Yan. She commented with gratification that "the springtime for China's conservation sector has arrived." After all, when she first introduced the IUCN system to China's conservation legislative reform a decade and a half ago, not many people knew what a unified concept of "protected areas" meant in the Chinese context, let alone were willing to embrace it.

With all the actions taking place, China is entering an era of biodiversity conservation 2.0. With the current national park and protected area reform, China has a chance to reset the entire conservation system and solve some of deeply-rooted, perennial institutional problems. To be sure, this system upgrade, even if completely successful, is far from being enough for China to win the up-hill battle against unprecedented biodiversity loss and ecosystem degradation, but it is a much needed key step to set the country on a right path toward any meaningful targets of conservation. The significance of this reform cannot be underestimated if we consider the possibility of the party leader Xi Jinping making a path-breaking conservation commitment during the upcoming 15th meeting of Conferences of Parties (COP15) at Kunming. Postponed from 2020 to 2021 due to the COVID-19 outbreak, the Kunming COP15 is the first UN CBD conference to be held in China. The world's eyes are now on China for the biodiversity crisis especially given the global failure on all conservation targets set at the Aichi conference ten years ago (Farand, September 9, 2020). If Xi wants to take on a meaningful leadership role on the global biodiversity front, the protected areas reform at home is what he can rely on and be assured of the most.

2020 is an eventful year for biodiversity issues as the global coronavirus outbreak brought to light existential challenges posed by biotechnology research and its applications. At the center of the storm eye, China rushed to enact a biosecurity law, formally passing it on

October 28th, 2020. As a comprehensive law regulating major risks to national security in the biological field, it touches on issues of biopiracy related to biological resources and information, as well as issues of bioweapons but put aside addressing agri-GMO issues (*Xinhua* Oct 18, 2020). This is not going to satisfy the most fervent anti-GMO activists who based their protests on the national security ground, but the new law does not override the existing agricultural biosafety regulatory system either. This seems to signal the continuity of existing regulatory stances and is consistent with recent agri-GMO decisions. While the developmental state keeps pushing on its industrial agenda it still dances around the topic with careful messaging to the sensitive audience. After the government approved the three GM crop varieties for safety cultivation this year, the popular version of the party media outlet, *Global Times*, reported the news with the reassuring title of "likely only for scientific research" (*Global Times*, June 23, 2020). At the center of a trade war and a global pandemic, China still maintains a balanced position on GMOs, with a system put into place two decades ago on labelling requirements, safety approvals, and imports and exports administration remaining un-conceded.

Environmental Decision Making at the Interface of the State, Science and Public

Both protected area administration and biosafety regulations are technical and complex issues that requires a lot of expertise to tackle or even understand. The two policy domains thus provide excellent opportunities to examine underexplored general questions regarding authoritarian decision making at the interface of the state, science and the public: how does an authoritarian regime respond to challenges rising from governing issues that are technically complex and uncertain? How does it balance legitimacy, science, and power? Does the regime

type matter? And ultimately, how did the environmental norms prevail in the two complex and uncertain biodiversity policy domains in China?

Borrowing from Habermas, I proposed an authoritarian decision-making typology including an *authoritarian decisionist* model, a *state-corporate technocratic* model, and *a public contestation* model. These models helped to shed light on the relationship between the state, scientists and the public at the core of the authoritarian decision making.

My research finds that China's decision making in the two complex environmental domains has increasingly leaned on scientists and experts for legitimate and rational policy decisions, in *a state-corporate technocratic* fashion. However, in both case domains bureaucrats and scientists form alliances against environmental norms, either driven by a developmental agenda or established bureaucratic interest.

How can the authoritarian state overcome this structural bias against environmental public good in complex issues? My investigation of biodiversity cases proves that the contestation of knowledge-based collective actors is necessary in overcoming the bureaucrat-scientist alliance and achieving the environmental norm victory. In other words, the prevalence of environmental norm depends to a large degree on whether there are collective actors who are knowledge intense, highly respected for science authority, well connected and constantly campaigning on the issue. However, their impacts depend on significant political openings and are less straightforward than a lineal relationship. In the case of GMOs, for example, the proxy civil society was not capable of holding off developmental policies until it triggered a full-blown national mobilization.

An Epistemic Community in China's Protected Area Reform

I adapt Kingdon's multiple stream framework in China's mixed process of policy formation and decision making and explain why China suddenly converted its conservation administration to a protected area system. My findings show how a collective knowledge actor, an epistemic community in conservation institutions, contested the pro-establishment technocratic reform ideas and prevailed when the increased political salience of the issue put higher pressure on bureaucrat decision makers to justify their decisions on a legitimacy and rationality basis.

China's conservation area administration was long known as a case of "nine dragons governing one water," with fragmented institutions and a low capacity. When the reform started two decades ago, bureaucratic interest dominated the agenda setting process, resisting any possible overhaul. As the issue was highly technical and complex, the reform took a bureaucrat-expert consultative style. A group of experts emerged in the consultative process, advocating an IUCN protected area system that would unify and coordinate all conservation areas under one authority. Their contestation was able to thwart a few reform proposals that would have further entrenched the existing system, and when the state reformers were seeking to make breakthroughs in conservation governance to meet the political need of the party leadership, the scientific authoritativeness, interest neutrality, and career prestige of the epistemic community and their proposal appeared to be the most appealing option to go forward with.

A Proxy Civil Society and Precautionary GMO Regulations in China

In an additional but no less extensive case investigation of China's GMO regulations, we argue that China's institutionalization of the precautionary regulation against a strong pro-GMO agenda was a result of a two-stage public mobilization. In particular, it was another novel set of collective idea agency that upheld the anti-GMO regulations and triggered the nation-wide mobilization leading to the regulatory entrenchment of a global precaution norm. The proxy civil society, a fusion of institutional state actors and international NGOs, performed the key civil society functions, including an epistemic community role, when the public opinion and free civil society associations were absent for anti-GMO public mobilization.

Issues of Political Saliency

Both public policy and social movement theories pay attention to issues of political saliency. In Multiple Stream Framework (MSF), political saliency can result from some development in the political stream, and social movement theories deem it a change in the political opportunity structure. As political saliency i.e., the perceived importance of the issue in the eyes of the decision makers rises, there can be an opening of a window for opportunity for policy actors to push their agendas.

A leadership change in the party state can offer such a development in the political stream, and the 2012 leadership turnover marks a big development on China's environmental front. In the new era, environmental governance was pushed to the front of new party leader Xi Jinping's policy portfolio in a campaign to construct an "ecological civilization." And the new leadership's decision to introduce a national park system to China brought conservation institution issues to a political saliency at levels previously unseen. The national park reform

was treated as one of the two signature reforms for Xi Jinping's ecological civilization campaign, in par with his climate policy. This saliency creates a window opening of opportunity in the sense of great imperatives for action and timely output, as well as a change to the bureaucratic decision makers and their incentive structures. In specific, the central planning departmental bureaucrats were incentivized to seek scientifically authoritative and interest neutral reform ideas and the availability of the conservation epistemic community satisfied this need.

China's entry into the WTO was an historic landmark not only to China but also to the rest of the world, and its complicated legacy has been felt everywhere and has no doubt contributed to the unraveling of liberal world order. At that time of China's entry, agricultural GMO issue gained extreme saliency, essentially becoming a key part of China's protectionist strategy as a technical barrier against international competition. This unprecedented political saliency created an opening window for the proxy civil society in two ways. It first reduced the chance for suppression and increased the legitimacy of environmental activism by non-state actors, particularly an international NGO that was previously forbidden. Second, it increased the state facilitation, rendering the state-associated media and network resources available for the proxy civil society's public mobilization efforts.

China has increasingly taken environmental protection seriously, but the level of political saliency these two policy issues reached was unprecedently high due to the extraordinary political circumstances. As I have demonstrated, the high saliency created mechanisms that contributed to the success of norm contestation. This finding casts some negative light on the prospect of environmental protection in other policy areas as they

generally lack the political attention at such high levels, and as a result are more vulnerable to the developmental agenda.

Theoretic Contributions and Implications

I. New Collective Actors in Environmental Decision-Making Scene

Does social agency and mobilization make big differences and have strong impacts in China's environmental protection? Focusing on the environmental decision-making at the interface of the state, science and the public, my dissertation is agency-centered in analysis. It identifies previously obscure collective actors and theorizes their causal impacts on the environmental decision process.

Previous scholarship on Chinas' environmentalism tends to look for collective action agency in a broad civil society concept, with particular attention to civil society non-governmental organizations (NGOs) at the center (Howell 2007; Economy 2011; Yang 2009; Teets 2013; Ho & Edmonds 2007; Tang & Zhan 2008). Focusing on their policy impacts and underlying mechanisms within a fragmented authoritarian context, Mertha identifies a new group of policy actors, "policy entrepreneurs," mostly non-state actors from a journalist-NGO nexus but also some sub-state actors, whose contestations can influence policy decisions through effective issue framing and/or coalition forming or by exploiting bureaucratic fractures (Mertha 2009).

My research demonstrates that in issue areas that are scientifically complex and uncertain, collective actors who are able to break down the knowledge barriers and participate in the knowledge co-production are key to the success of environmental contestation. Both the conservation epistemic community in China's protected area reform and the proxy civil society in anti-GMO mobilization fulfil these functions.

Epistemic Community with Chinese Characteristics

In Peter Haas's definition, epistemic community enjoys high authority and influence derived from career accomplishments and official status. And unlike other collective actors who are interest-bound, including the policy entrepreneurial, epistemic community is defined by their shared casual beliefs about the issue and shared normative commitments to the policy cause. Epistemic community in China's conservation institution reform and anti-NGO movement share these features while demonstrating additional contextual traits.

First of all, biodiversity epistemic communities are ***internationally enabled***. In both areas, the highly committed collective idea agency arose out of the extensive international collaboration in environmental protection.

Conservation epistemic community members not only share a similar conservation ideology with their western counterparts, but are also, to a large degree, the local agents for the international environmental organizations and their China/East Asia programs. The anti-GMO proxy civil society is an extension of the global anti-GMO movement, with its key actors, Greenpeace (and to a lesser degree Third World Network) at the center. And their connections

with the Chinese institutional actors date back to the international environmental negotiations at the UN CBD and its other working conferences.

Both conservation epistemic community and anti-GMO proxy civil society command tremendous authority out of these international connections and their knowledge brokerage. A particular tricky aspect of the proxy civil society is that there was no scientific consensus on GMO precautions in global community, yet, at a time when such information was limited to the Chinese public, GP and its partner were able to construct its scientific authoritative image by bringing in international research findings and policy information. As time went by, GP's scientific stance started to be questioned and its reputation in China is no longer impeccable.

Related to the international sources of authority, however, is ***the localization*** of the knowledge actors and their knowledge outputs. Despite original international influences, both groups of collective actors are fully immersed in China's local fields, with long-term practice and extensive career networks within China.

Second, unlike in Haas' Mediterranean case and other examples (1989) identified at the international and domestic levels elsewhere such as in Canada (Eyles, Robinson, and Elliott 2009), epistemic community in China's conservation reform and biosafety regulation actively engaged in ***advocacy, lobbying and campaigning***. This seems to raise the bar higher for environmentalism in China than elsewhere, requiring coordinated collective activism from the committed scientists and experts in the policy community.

And to make GMOs, an extremely abstract and technically complex issue, the nation's most contentious policy issue, a collective knowledge agency needed to do much more beyond

breaking down the knowledge barrier and participation in the knowledge coproduction. In the absence of grass roots community organizations and consumer groups, the Greenpeace and SEPA's representatives waged anti-GMO media campaigns, supported consumer lawsuits, targeted MNCs and checked the state's decisions and policy enforcement. The actors fully exploited the political legitimacy, especially issues of national sovereignty and social anxiety about food safety, and the state resources for campaigns and advocacy, and also used the mobilized public opinions as the weapon against the state developmental agenda.

Issues of Framing

Framing is a key aspect of social movement and policy entrepreneurship. There are different theories about what aspects of the framing are the most determining factors to the outcomes of political contention. Baumgartner and Jones (1993) claim that redefining the framing is key to the success. Mertha suggests in addition that non-regime challenging framings are more likely to prevail (2008). Our cases confirm that neither of the two success cases of environmental contestation were considered regime subversive in framing by the state, but the anti-GMO framing was extremely confrontational.

The biodiversity epistemic community did not dramatically reframe the conservation crisis but proposed a different technical framework and a more authoritatively based policy alternative. It didn't redefine the issue in the fundamental way but identified a different set of causes and effects and suggested change based on this new diagnosis. Its rivals opposed the IUCN protected area system based on a feasibility assumption, stating that IUCN ideas were

rational but did not fit Chinese administrative reality, and therefore their more ad hoc solutions can achieve the conservation objectives as good as the IUCN system.

The anti-GMO framing is more complicated and essentially bifurcated along two narratives. It based its framing on a human health impacts (to a secondary degree environmental impacts as well) claim, framing the issue on consumer rights protection, on the one hand; on the other hand, it portrayed the issue in a nationalist framework with strong geopolitical implications. This framing feature allowed it to attract not only middle-class consumers and the general public out of concerns for food safety, but also radical nationalist-populist activists that were able to keep decision makers in check.

The two cases are by and large confirmative of the previous theory on framing, demonstrating that the non-confrontational framing/reframing might be necessary for the success of environmental contestation. What my dissertation highlights and focuses on, however, are the types of conditions required for these framings to prevail in authoritarian contexts. More importantly, my research reveals why some politically charged framings were not perceived subversive by an authoritarian regime which has fostered a "rightful resistance" contention culture while taking down all right advocacy lawyers in recent years.

II. Authoritarian Environmentalism Reexamined

Many measures of environmental protection are considered public goods that are hard to supply because of a collective action problem. Some believe that a democratic system is in particular disadvantages in overcoming this problem for its need to bring people on board due

to electoral accountability to the constituencies. In this account, authoritarianism can be a solution and poses an advantage in tackling large scale and complex environmental issues such as climate change, biodiversity loss, or ecosystem degradation by forcing the environmentally sound solutions onto the people (see Beeson 2010, 2018).

This thesis is particularly relevant to China's environmental politics. China's political institutions are increasingly evolving on a path deviating from the expectations of liberal intellectuals such as Francis Fukuyama who celebrated the end of history and ideology (2006). China remains authoritarian while it rapidly modernized its economy and technology. The previous CCP leaders didn't fundamentally challenge the universal values of liberal democracies and instead claimed that China was simply not ready for it. However, the recent leaders from the late Hu & Wen era started to suggest otherwise by calling for the people to have confidence in China's homegrown political institutions and condemning Western democracies as subversive and hypocritic. And this has only intensified in the past few years in the Xi Jinping era (Feng July 7, 2016). What implications does this development have on China's environmental governance? Does this mean China has better opportunities for environmental improvement, if the leaders take up more environmental causes?

My investigation of the biodiversity and biosafety regulations provides an opportunity to reexamine this theme in China.

Is the Authoritarian Decisionist model prevalent?

Consistent with the expectation, my investigations of the two case domains reveal that there were decisive authoritarian decisionist environmental interventions. When China faced

the market pressure due to its WTO annex, it forcefully enacted anti-GMO regulations to follow up with its precautionary turn in Cartagena Protocol. The administrative regulations were made in a fast-fire fashion in the face of entrenched bureaucratic resistance, particularly from a developmental coalition between bureaucrats and top bio-scientists. Another case of the authoritarian decisionist nature is the party's decision to construct China's national parks system.

The authoritarian decisionist model of decision making without much social input, however, can be transient, especially when the initial adoption was not necessarily a commitment to the environmentalism but out of instrumental calculation such as in the China's GMO case. What turned out to reinforce this environmental regulatory position was the same political opening that allowed the contestation by a proxy civil society. And my research demonstrates that the impacts of the proxy civil society's s contestation could even have been very limited if it did not trigger a broad-based social mobilization that blew up in the face of the developmental coalition. In the end, GMO contestation became effective as it attracted both middle class and various groups of radical populist-nationalist activists.

Similarly, the national park reform decision was a mandate, yet it had no scientific rationales or public demands behind it; and if not bundling up with substantive reform of protected areas, it was no more than a stalling policy that could do more harm than good to the overall conservation sector. As the landscape planning expert Yang Rui put in, it could have just littered the already messy conservation areas with one additional category while delaying desperately needed reforms for the system.

Important to note, the majority of environmental decisions with high technical complexity, at least at the national level, remain outside of this ultimate political adjudication. As aforementioned, even the then most radical reform proponent for protected area reform would not dream of such a drastic restructuring of the sector for many years, because she didn't believe the issue could have attracted such high political attention from above to generate enough force to push it through. Most of the time, the issues recycle around the ministries with no ministry in absolute authority to impose a decision.

***How is China's Technocratic Decision-Making Pro-Environment*?**

Inherent in an authoritarian environmental thesis, is an assumption about the technocracy in which environmental experts with the right mind at the core of bureaucratic decision making dominate the policy process.

In China's biodiversity and biosafety areas, decisions appear to be made by technical bureaucrats through expert consultations in a rather routine fashion when there is no particularly high political attention. The nature of these issues is highly complex and scientific. As discussed in chapter 3, conservation experts, bio-scientists, legal scholars, public policy experts, economists and planning experts are frequently tapped in reform deliberation.

Are they leading the decisions with scientific authority and persuasiveness? It appears that when there are bureaucratic conflicts of interest, they are more aligned with the bureaucratic decision makers and their institutional interest, instead of offering independent and interest-neutral scientific alternatives. When being asked to propose nature reserves legislation drafts, both MOA and SFA, the two leading ministries produced drafts, presumably

written by experts, that were highly biased toward their bureaucratic turf interests. And a reform proposal to enact the Natural Heritage Conservation Law that was ad hoc and partial interest-based, still almost got passed with most experts falling in line despite the initial rejection.

A policy expert I interviewed in 2018 was highly critical of the national park reform decision. What is unusual about his criticism is that he was one of the top experts who were recruited to the core expert support team of the decision makers and participated in the knowledge coproduction of national park research.

So, the answers to the technocratic question remains mixed. The policy decisions are increasingly reliant on experts in complex environmental issue areas at the technical level. Yet the field segmentation and bureaucratic domination are also prevalent in this state-corporate technocracy. Given the weak environmental protection agency, a case scenario where environmental technocrats dominate the decision is rare. And when the environmental expert actors want to make impacts, they need to gain additional leverage from somewhere else, most time the public, as shown by the cases of conservation epistemic community and anti-GMO proxy civil society.

III. New Insights on International Norm Diffusion

The theory of international norm diffusion does not have a particular understanding of how environmental norms are adopted and institutionalized in developmental authoritarian

regimes. Its focus on ideas vs. interest at an aggregated state level is parsimonious but not particularly informative about the agency and structure behind the state decision.

My investigation reveals that collective idea agency and their contestation are essential to the norm prevalence in complex and uncertain environmental issues. In these issue areas, knowledge barriers are too high for social learning and with the collective knowledge actors, social learning can take place with the decision makers (as in the protected areas reform) or the public (in the GMO cases). These collective idea actors work closely with the state or even from within the state.

China's GMO regulation has attracted a lot of attention for its alignment with a Cartagena Protocol against a developmental industrial policy at home. However, most scholarly work only looked at the initial regulatory turn, an initial step in the international norm diffusion. Many people don't realize that such regulatory gestures can be temporary and easily turned into non-enforcement, if the state commitment was only instrumental and there was no public pressure to uphold it. Our research instead focuses on how the anti-GMO regulation was institutionalized and how GMO issues became the most contentious environmental topic in a constrained authoritarian public sphere. It answers the norm diffusion question in IR literature from a comparative political ground, avoiding telescopic structural explanations that cannot pass reality checks.

Into the Future: China's Environmental Leadership at Home and Abroad

China is at a crossroad. It needs to confront its own biodiversity loss and environmental crises, and the world is looking out to it for environmental leadership.

Deeply into the Anthropocene, the scientists are warning us of a "biological annihilation." The sixth mass extinction is under the way. The species loss by the end of the 21st century is estimated to reach twenty to fifty percent of all living species together (Kolbert 2014). This happens while climate change has become the defining issue of our time. We are "at a defining moment" (United Nations 2020) of all these environmental crises. China emerges as one of the most important actors in this scene, with the world biggest population, second largest economy and as the world biggest carbon emitter.

In a balanced view, China's biodiversity conservation is undergoing a systemic upgrading. The restructuring and streamlining at the top administrative level are a first step, and it remains to be seen how further reorganization and regulation can follow through. After the 2018 restructuring, the protected areas reform returned to being a background issue. Its management has been transferred to the NAFG, the decision of which increasingly appears to show technocratic features, but now at least under one unified bureaucratic system at the top. National parks, on the other hand, remain under the public spotlight, being show-cased to the media frequently. The future National Park law or protected area law will be a threshold, settling institutional problems for a long term to come. A foreseeable possibility is that national park law will be enacted first due to the political imperative and smaller stakes than an overall protected area law. Still it will have to settle many issues that will become path setting for the protected area administration and legislation. Nevertheless, at least it is clear that national park law will be set in a protected area framework and with a clear administrative authority at the

top. And if the current National Park pilots genuinely succeed, their models and experience can be scaled-up nationwide.

National parks and protected areas reforms are open-ended and perhaps were planned to be so. Among many issues, land ownership and use rights, resident's livelihood, industrial and tourist activities, and funding for protected area and biodiversity conservation remain highly unsettled. These are the issues that will further determine the quality of China's biodiversity conservation.

Nevertheless, there is a clear trend in China that biodiversity is getting really "hot" on the government's agenda. China's focus on ecological civilization, its big moves in making climate pledges and recent announcement to become carbon neutral by 2060, as well as the prospect to host the Kunming COP15 of CBD all indicate big political openings at the top. Members of epistemic community and broader policy community in the conservation sector have sensed this all along. As early as 2016, there have been voices calling for the government to bring biodiversity conservation to the same height of climate change on the global stage, pushing China to step up its pledges and leadership for Kunming COP (interview, September 2016). The recent speech of the party leader Xi Jinping at the UN Biodiversity Summit did not go beyond what was already on the table, but this does not rule out the possibility of Xi scaling it up at the 2021 Kunming meeting.

One good news from my research is that there are policy communities, particularly the epistemic community on the biodiversity issue behind these political decisions. They have been vocal and active, and under the big political opening, it is hard to imagine that they do not seize

the opportunity to impact the policy decisions. After all, with the initial outbreak of coronavirus in Wuhan allegedly originated from illegal wildlife trade at a local wet market, the conservation experts, many overlapping with our protected area epistemic community members, immediately took action to propose an illegal wildlife trade ban in February and initiated the corresponding revision of the PRC Wildlife Protection Act in March 2020.

Drawing on my research frameworks and findings, many questions can be asked about climate and other environmental issues in China. For instance, what science-policy mode does China's climate governance follow? What kinds of role does the scientific community play in China's climate decisions? Are there any collective actors and public contestation? For one thing, Greenpeace China has been closely involved with China's climate negotiations and working hand-in-hand with the "mini State Council", NDRC (Interview with GP China Director, September 2016). What was its campaign strategy in China on climate issues? Despite being a climate laggard till very recently, China embraced a "Common but differentiated responsibilities" framing of climate policies; and over the many years when Chinese government refused to pledge on emission reductions, the Chinese public has accepted the global warming and climate crisis as a legitimate claim through long-term exposure to government propaganda. This has broken down some knowledge barrier for the public at the epistemic level. What kind of difference does this make for the authoritarian decision making? Examining questions like these will great help our understanding China's climate politics and its implications for the world.

As science moves into the center for decision making, how is ideology still relevant to the post-socialist developmental state? Ecological civilization is a very vague and

underdeveloped theory despite being enshrined into the official party ideology in Xi's New Era. Nevertheless, it signals the party's attention to environmental issues and the need to check unstainable development for the greater good, if not the party's own legitimacy and survival. It provides a set of discursive tools that at times can be utilized or even weaponized against market and state's abuse of natural resources and environment, , sometimes even in a draconian fashion as shown in the demolition of high value real estate illegally built in Shaanxi's Qinling Nature Reserve (Xinhua, Jan 9, 2019). My research on national park and protected area reform demonstrated that the party's ideological needs did provide an unusual opportunity to raise the salience of the conservation issue. And the higher the issue salience, the higher the chances for the scientific consensus to prevail, if it is backed by an active epistemic community.

However, as long as the party continues to be vested in development to ensure legitimacy, and lacks institutionalized public inputs and scrutiny, the usefulness of ecological civilization as a party ideology is limited. In this sense, if we understand the party's belief in its authoritarian style of governance as an ideology, this ideology is not helping the environmental causes. The precautionary norm, however, benefits from certain ideological elements of the regime during its internalization process. Its anti-neoliberal stances resonate with the rising nationalist and leftist discourses which helped the entrenchment of the precautionary regulation on agricultural biosafety; however, the precaution principle was also overshadowed and tainted by conspiracy theories as a result.

In modern times, regimes all need to face challenges rising from governing issues that are scientifically complex and uncertain. When an authoritarian regime increasingly leans on expert consultation to seek legitimacy for its decisions on those issues, what are the

implications for the public goods provisions such as environmental protection? My research investigates two issue domains and looks into the dynamics at the interface of the state, science and the public in the decision process. It shows that a bureaucracy-dominated technocratic decision model tends to advance developmental or departmental interest at the cost of the environment. To contest these decisions, collective actions need to overcome hurdles in two key aspects: knowledge capacity and mobilization power from the decision core. And their success both depends on some kind of major legitimating act of the state at the leadership level. In this process, international environmental regimes, collaboration and even direct intervention also play key roles, nudging the state toward a more environmentally sustainable path.

For future research, it will be interesting to examine how these theoretical insights derived from a Habermasian authoritarian decision typology and China's biodiversity politics apply to other environmental domains in China or other comparable country cases.

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APPENDIX

Table 6.3: Landmark state documents on NP reforms: 2013-2019

Dates	Issuing unit	Guiding landmark documents	Directives about national parks and protective areas
Dec 2013	Central CCP Committee (delivered by Xi Jinping)	Decisions of the 3rd Plenum of the 18th Party Congress (Xinhua Nov 2013).	"Constructing the national park system. "
Jan 2015	NDRC joined by 12 ministries and committees.	Plans for the pilot projects of creating national park system (Jia, 2018).	1. Pilot projects are for national park administrative system, not the national parks per se. 2. The pilot project objective is to "Solve the problems of jurisdictional overlapping and fragmented management by multiple government authorities in the development-prohibited areas (referred to as the protected areas in the following) including national-level nature reserves, national-level scenic areas, the world cultural and natural heritages, national forest parks, national geological park, etc. in the pilot areas. To further clarify the ownership of the property rights of the natural resource assets…. Generate replicable and widely adoptable conservation administration models."
May 5, 2015	Central CCP Committee and the State Council	Opinions of the Central CCP Committee and the State Council on Speeding up Advancing Ecological Civilization Construction (Xinhua, May 2015)	"Creating national park system; implement unified administration according to different levels; protect the authenticity and completeness of the natural ecology and natural and cultural heritage."
Sept. 2015	The General Offices of the Central CPC Committee and State Council	Overall Plans for the system reform of the ecological civilization (Xinhua Sept 2015)	12.Creating national park system. Strengthening protection and sustainable use of the important ecosystems; Reforming the institutions that separately set up nature reserves, scenic areas, cultural and natural heritages, forest parks, geological parks, etc. by different ministries. Restructuring these protected areas in terms of their functions, and reasonably delimitating the

			borders of national parks. Strengthening the guidance for the national park pilot projects. …. Preserve the authenticity and completeness of the natural ecosystems and natural and cultural heritages.
Sept. 2017	The General Offices of the Central CPC Committee and State Council	Overall plans for the system reform of the national park reform (Xinhua, Sept 2017)	4. Establishing the correct ideas about national parks. Upholding the number one priority of the ecological conservation. 5. Make clear the orientation of national parks. National parks are one of the most important categories of the protected areas in the country and are designated to the development prohibited areas in the national main functional zone planning. They are under the regulation of national Ecologic Red Line areas and subject to the strictest protection. 7. Optimizing the protected area system. Reform the institutions that separately set up nature reserves, scenic areas, cultural and natural heritages, geological parks, forest parks, etc……Reform step by step the practice of setting up protected areas in terms of resource types …. Constructing the protected area system represented by the national parks….
Oct. 2017	Central CPC Committee (delivered by Xi Jinping)	The 19th Party Congress Report （Xi, Oct 2017）	We will establish systems for developing and protecting territorial space, improve supporting policies on functional zones, and develop a protected areas system composed mainly of national parks.
June 2019	Central CPC Committee		Instructive Opinions on Creating a protected area system mainly composed of national parks