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COMPLIANCE WITH INTERNATIONAL ENVIRONMENTAL REGIMES: CHINESE LESSONS

RODA MUSHKAT*

ABSTRACT

The global ecosystem continues to display signs of strain because of a policy of inadequate responses that are not entirely commensurate with the challenge and a substantial gap between prescribed and actual behavior within and across State boundaries.¹ Weak adherence to international environmental law, one of the factors contributing to the disparity between normative expectations and observed outcomes, has been explored extensively by legal researchers.² Some of the insights that have been generated may be fruitfully examined in light of the problematic Chinese experience on the ecological front.

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INTRODUCTION

China conjures up conflicting images. On the one hand, it is a country inspired by elaborate systems of ethics that respect the environment,

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I wish to thank Miron Mushkat for helping me navigate through social science territory. The usual disclaimers apply.

¹ Roda Mushkat, *Contextualizing Environmental Human Rights: A Relativist Perspective*, 26 PACE ENVTL. L. REV. 119, 119–20 (2009).

² See, e.g., D. G. Victor et al., *Introduction and Overview*, in *THE IMPLEMENTATION AND EFFECTIVENESS OF INTERNATIONAL ENVIRONMENTAL COMMITMENTS: THEORY AND PRACTICE* 1, 7 (David G. Victor et al. eds., 1998) (stating “International environmental law is filled with examples of agreements that have had high compliance but limited influence on behavior . . . Standards can be too weak, too strong, inefficient, or completely ill conceived.”); Jeffrey A. McNeely, *Applying the Diversity of International Conventions to Address the Challenges of Climate Change*, 17 MICH. ST. J. INT’L L 123, 137 (2008).

notably Taoism and Buddhism, whose reconstructed economy seems to defy gravity.³ On the other hand, it is a nation evidently capable of extraordinary myopia and egregious excesses in the environmental domain.⁴ This pattern manifests itself in related spheres of socio-physical activity, where striking a balance between creation and preservation is an ongoing concern.⁵ In a quintessentially Chinese fashion, the two images coexist uncomfortably and vie for attention but, paradoxically, are also inextricably linked and mutually dependent.⁶

China's robust economic performance in the post-Mao era has attracted substantial interest from both academic researchers and policy analysts.⁷ Differing accounts have been offered to explain the economy's persistent dynamism and resilience.⁸ Mainstream views, however, have consistently converged regarding outcomes.⁹ The consensus is that living standards have risen dramatically over a relatively short period of time, which is an impressive achievement for a country saddled with such a large population and several serious challenges.¹⁰

Traditionally, environmental degradation has not featured prominently on the scholarly and public agendas.¹¹ Indeed, as matters stand, the ecological imperative continues to be eclipsed by its economic counterpart.¹² Nevertheless, the environment looms increasingly large in academic studies and in policy discourse.¹³ Additionally, the growing

³ See ELIZABETH C. ECONOMY, *THE RIVER RUNS BLACK: THE ENVIRONMENTAL CHALLENGE TO CHINA'S FUTURE* 55 (2004).

⁴ See *id.* at 55–56; see also Xiaofan Li, *Environmental Concerns in China: Problems, Policies, and Global Implications*, 81 INT'L SOC. SCI. REV. 43, 46 (2006).

⁵ See Li, *supra* note 4, at 46.

⁶ See *id.* at 46–47.

⁷ See, e.g., Miron Mushkat, *Economic Reform, Discontinuous Change and China's Future*, in 2 PERSPECTIVES ON GLOBAL DEVELOPMENT AND TECHNOLOGY 255 (2003).

⁸ See *id.* at 255–57.

⁹ See *id.*

¹⁰ See *id.*

¹¹ See Li, *supra* note 4, at 43.

¹² *Id.* at 46.

¹³ For books discussing environmental issues affecting China see ECONOMY, *supra* note 3; RICHARD L. EDMONDS, *PATTERNS OF CHINA'S LOST HARMONY: A SURVEY OF THE COUNTRY'S ENVIRONMENTAL DEGRADATION AND PROTECTION* (1994); MARK ELVIN, *THE RETREAT OF THE ELEPHANTS: AN ENVIRONMENTAL HISTORY OF CHINA* (2004); XIAOYING MA & LEONARD ORTOLANO, *ENVIRONMENTAL REGULATION IN CHINA: INSTITUTIONS, ENFORCEMENT, AND COMPLIANCE* (2000); GEOFFREY MURRAY & IAN G. COOK, *GREEN CHINA: SEEKING ECOLOGICAL ALTERNATIVES* (2002); LESTER ROSS, *ENVIRONMENTAL POLICY IN CHINA* (1988); CHINA'S ENVIRONMENT AND THE CHALLENGE OF SUSTAINABLE

volume of work discussing environmental issues affecting China adopts a tone, characterized by greater intensity and sense of urgency.¹⁴

Symptoms of environmental dislocation abound in China.¹⁵ They assume a variety of acute forms, including widespread deforestation, desertification, disease, flooding, pollution, and water scarcity.¹⁶ A burgeoning population and many policy practices detrimental to ecological sustainability are at the root of these severe problems.¹⁷ Although the current effect of such policies is unclear, such practices had once been largely responsible for the rapid population expansion witnessed throughout Chinese history, particularly during the modern era.¹⁸

Over the centuries, China's leaders tended to relegate the environment to the strategic periphery.¹⁹ Their energies had been channeled toward accumulating power, gaining control over territory, bolstering the economy, and driving up the size of the population to increase China's source of labor, military manpower, and revenue.²⁰ This relentless pursuit of a narrowly-focused policy mix had placed enormous pressure on natural resources and, in turn, had led to frequent famines, physical disasters, political conflicts, and wars.²¹ No sturdy conservation ethos had emerged to act as a countervailing force.²²

Contrary to the prevailing view, Confucianism had displayed an anthropocentric bias, encouraging an instrumental attitude toward nature and its exploitation for the benefit of humankind.²³ Consequently, the institutional infrastructure designed to protect the environment had been rudimentary and structurally deficient.²⁴ Throughout the imperial era and beyond, including the initial phases of the post-1978 reform period, China's leaders had preferred to rely on a highly personal system

DEVELOPMENT (2005); *MANAGING THE CHINESE ENVIRONMENT* (Richard Louis Edmonds ed., 2000).

¹⁴ See, e.g., Srinivasan, *Regulating the Belching Dragon: Rule of Law, Politics of Enforcement, and Pollution Prevention in Post-Mao Industrial China*, 18 *COLO. J. INT'L ENVTL. L. & POL'Y* 267, 275–80 (2007); Yuhong Zhao, *Trade and Environment: Challenges After China's WTO Accession*, 32 *COLUM. J. ENVTL. L.* 41, 95–97 (2007).

¹⁵ See *ECONOMY*, *supra* note 3, at 17.

¹⁶ *Id.* at 9–10.

¹⁷ See *id.* at 10.

¹⁸ See *id.* at 9–10, 41–43, 64–71, 84–85; see also MURRAY & COOK, *supra* note 13, at 1–23.

¹⁹ See *ECONOMY*, *supra* note 3, at 17.

²⁰ *Id.* at 17, 41.

²¹ See *id.* at 27; see also MURRAY & COOK, *supra* note 13, at 24–36.

²² *ECONOMY*, *supra* note 3, at 17.

²³ *Id.* at 55.

²⁴ See *id.* at 17–18.

of moral suasion virtually bereft of environmental regulations and codified environmental laws.²⁵

Responses to ecological challenges, particularly of the highly disruptive variety, did materialize periodically.²⁶ However, they typically assumed the form of *ad hoc* mass mobilization campaigns characterized by poor planning, coordination, implementation, and follow-up.²⁷ The lack of a coherent strategy, long-term vision, methodical organization effort, and time consistency often nullified the potential benefits of the entire undertaking.²⁸ For example, "large-scale infrastructure projects, such as dams or river diversions . . . wreaked havoc on local ecosystems."²⁹

This deeply-entrenched historical pattern had remained intact throughout Mao Zedong's rule (1949–1976), a period that featured a high degree of ideological intensity, voluntarism, including mass line, campaigns, and guided spontaneity, class struggle, anti-intellectualism, self-reliance, institutional opaqueness, legal fragility, and policy shifts.³⁰ Deng Ziaoping, Mao's pragmatic successor, also sustained this pattern well into the reform era, two years following the latter's death and the dismantling of the revolutionary power structure.³¹

As economic reform gained momentum, output growth accelerated dramatically.³² The standard of living of Chinese people improved correspondingly, albeit in an uneven fashion, and the country had been transformed into a regional, possibly even global, industrial power.³³ At the same time, the environmental costs of breakneck economic expansion, which accounted for a substantial portion of gross domestic product, had been persistently de-emphasized, with development being pursued in a single-minded manner during the 1980s and much of the 1990s.³⁴ As noted by a prominent Sinologist:

Rates of air and water pollution have skyrocketed. By 2002, China had become home to six of the ten most polluted

²⁵ *Id.* at 17, 57; MURRAY & COOK, *supra* note 13, at 24–36.

²⁶ *See* ECONOMY, *supra* note 3, at 17–18.

²⁷ *See id.*

²⁸ *See id.* at 17–18, 45–46.

²⁹ *Id.* at 17.

³⁰ *See* KENNETH LIEBERTHAL, GOVERNING CHINA: FROM REVOLUTION THROUGH REFORM 62–77 (W.W. Norton & Co. 2d ed. 2004).

³¹ *See id.* at 125–27.

³² *See* ECONOMY, *supra* note 3, at 60–62.

³³ *See id.*; LIEBERTHAL, *supra* note 30, at 243–72; MURRAY & COOK, *supra* note 13, at xiii.

³⁴ *See* ECONOMY, *supra* note 3, at 60–64; LIEBERTHAL, *supra* note 30, at 276–80, 282–90; MURRAY & COOK, *supra* note 13, at 5, 214.

cities in the world. Acid rain now affects about one-third of China's territory, including approximately one-third of its farmland. More than 75 percent of the water in rivers flowing through China's urban areas is unsuitable for drinking or fishing. Desert now covers 25 percent of China's territory, and deforestation and grassland degradation continue largely unabated

In addition, pollution-related illnesses are soaring. There have been serious outbreaks of waterborne disease, as well as long-term health problems in riverside communities reflected in rising rates of spontaneous abortion, birth defects, and premature death. Air pollution alone, primarily from coal burning, is responsible for over 300,000 premature deaths per year.³⁵

The distinctly uncomfortable realities which this picture represents are no longer marginalized by policy makers.³⁶ They now display an acute awareness of the adverse consequences of environmental decay, such as the risk of voluntary and forced massive migratory waves induced by resource depletion.³⁷ Moreover, they are confronting a rising tide of grassroots protest over air and water pollution, compulsory resettlement, damaged crops, deteriorating health conditions, and scarcity of key basic goods.³⁸ This, in turn, poses a threat to the authority of the Communist Party and the stability of the regime.³⁹

Despite a more favorable attitudinal climate and less skewed set of policy priorities, a strong tension between economic, or for that matter national security, and environmental goals persists.⁴⁰ To illustrate, shrinking grain yields in the 1990s and beyond have led to a growing dependence on external sources of supply, triggering concerns about food self-sufficiency.⁴¹ These concerns resulted in a large-scale land reclamation effort and campaign to boost grain production to the detriment of the ecosystem.⁴² Massive economic development programs in sensitive border

³⁵ ECONOMY, *supra* note 3, at 18–19.

³⁶ *See id.* at 19–20.

³⁷ *See id.* at 45.

³⁸ *See id.* at 19, 81–89.

³⁹ *Id.* at 19, 85–88.

⁴⁰ *Id.* at 19.

⁴¹ ECONOMY, *supra* note 3, at 19.

⁴² *See id.* at 19.

areas inhabited by potentially recalcitrant minorities, such as the Tibetans, have had similar consequences.⁴³

The purpose of the present article is to explore compliance with domestic and international environmental regimes. While the article favors the international environmental regimes, it also selectively addresses the domestic dynamics because the two segments of the politico-economic arena cannot be entirely separated from each other. However, the concept of a regime or environmental regime, which presupposes compliance with its precepts, is examined first in order to place the subsequent discussion in the appropriate analytical context.

I. INTERNATIONAL REGIMES REVISITED

Conflict and cooperation are enduring behavioral characteristics of the international system of politico-economic relations.⁴⁴ Traditionally, the former has been accorded far greater attention.⁴⁵ Members of the realist school of thought focus on it almost exclusively in their theoretical formulations, albeit at times in an indirect fashion.⁴⁶ This attention stems from the perception that international politico-economic processes essentially consist of "a competition of units in the kind of state of nature that knows no restraints other than those which the changing necessities of the game and the shallow conveniences of the players impose."⁴⁷

The absence of an effective central/supranational authority, capable of enacting and enforcing rules decisively, is the key factor underpinning this negative assessment.⁴⁸ The anarchic condition, or vacuum-like configuration, that is the product of such pervasive fragmentation compels relevant actors or States to rely predominantly on "the means they can generate and the arrangements they can make for themselves."⁴⁹ Conflict inevitably ensues, often culminating in military confrontation, because each party or state involved "is the final judge of its own cause . . . [and] may at any time use force to implement its policies."⁵⁰

⁴³ *Id.*

⁴⁴ See STANLEY HOFFMAN, *THE STATE OF WAR: ESSAYS ON THE THEORY AND PRACTICE OF INTERNATIONAL POLITICS* vii–viii (1965).

⁴⁵ See *id.*

⁴⁶ See CARSTEN HOLBRAAD, *INTERNATIONALISM AND NATIONALISM IN EUROPEAN POLITICAL THOUGHT* 14 (2003).

⁴⁷ HOFFMAN, *supra* note 44, at vii.

⁴⁸ See KENNETH N. WALTZ, *THEORY OF INTERNATIONAL POLITICS* 111 (1979).

⁴⁹ *Id.*

⁵⁰ KENNETH N. WALTZ, *MAN, THE STATE, AND WAR: A THEORETICAL ANALYSIS* 160 (1959). See ROBERT W. TUCKER, *THE INEQUALITY OF NATIONS* 4 (1977).

This conception of the structure and operation of the international system of politico-economic relations does not preclude the possibility of alliance cooperation.⁵¹ However, it is assumed to come into play just as an extension of conflict, rather than as a force inspired by the intrinsic merits of joint action.⁵² Alliance formation is thus an instrumental response to threats emanating from the external environment and reflecting deeply-rooted struggles for power.⁵³ Other forms of international cooperation may be ascribed to similar motives, although not necessarily in such an unambiguous manner.⁵⁴

At the other end of the international behavioral continuum is the institutional school of thought, whose members regard widespread and persistent cooperation as vital in an international setting marked by complex patterns of interdependence.⁵⁵ The actors or States are tightly bound together and share common interests which outweigh the competitive influences, prompting them to jointly seek mutually-beneficial institutions and rules.⁵⁶ The institutional edifice that emerges is not merely a symbolic device but a meaningful set of “patterns of practice around which expectations converge.”⁵⁷

The fundamentally opposed realist and institutional perspectives may be partially reconciled by incorporating the role played by hegemonic powers into the two explanatory frameworks.⁵⁸ The inherently conflict-ridden international politico-economic structure depicted in pure realist accounts may be transformed into one selectively displaying cooperative features and functioning in a generally orderly fashion when a single actor or State, possessing superior economic and military capabilities, is in a position to determine the rules of the game and shape system-wide behavior over a substantial period of time.⁵⁹ British dominance in the nineteenth century and American preponderance following the Second World War

⁵¹ See ROBERT O. KEOHANE, *AFTER HEGEMONY: COOPERATION AND DISCORD IN THE WORLD POLITICAL ECONOMY* 7 (Princeton University Press, 2d ed. 2005).

⁵² See *id.*

⁵³ See *id.*

⁵⁴ See *id.*

⁵⁵ See DAVID MITRANY, *THE FUNCTIONAL THEORY OF POLITICS* 101 (1975).

⁵⁶ See *id.*

⁵⁷ Oran R. Young, *International Regimes: Problems of Concept Formation*, 32 *WORLD POLITICS* 331, 332 (1980).

⁵⁸ See Robert O. Keohane, *The Theory of Hegemonic Stability and Changes in International Economic Regimes, 1967–1977*, in *CHANGE IN THE INTERNATIONAL SYSTEM* 131, 136–37 (Ole R. Holsti et al. eds., 1980).

⁵⁹ See *id.*

is commonly invoked in support of this proposition.⁶⁰ During both eras, a richly endowed nation-state actor, enjoying control over raw materials, sources of capital, markets, and competitive advantage in the production of highly valued goods, was apparently able to recast the international politico-economic structure in light of its interests and manage it accordingly: "The Pax Britannica and the Pax Americana, like the Pax Romana, ensured an international system of relative peace and security. Great Britain and the United States created and enforced the rules of a liberal international economic order."⁶¹

Two assumptions thus underlie the analytical framework of the theory of hegemonic stability, which may narrow, at the conceptual and practical level, the gap between the contrasting realist and institutional approaches to international politico-economic dynamics. First, that inter-actor or State patterns of cooperation are the product of the designs of a single superior power.⁶² Second, that the maintenance of these patterns is predicated on the persistence of the hegemonic configuration: "[F]or the world economy to be stabilized, there has to be a stabilizer, one stabilizer."⁶³

The hegemonic construct does narrow the analytical gap somewhat, but it falls short of shrinking it significantly. Institutionally-oriented researchers balk at the notion that cooperation is exclusively inspired by the naked self-interest of players in the international arena, whether richly endowed or otherwise.⁶⁴ Moreover, while acknowledging that hegemony may be conducive to the development of certain cooperative relationships, they reject the idea that it "is either a necessary or sufficient condition for the emergence of cooperative relationships."⁶⁵ By the same token, they take exception to the argument that hegemonic dominance is required to sustain cooperative schemes following their establishment, therefore demonstrating a reluctance to unambiguously embrace either of the two assumptions upon which hegemonic theory rests.⁶⁶

It should be noted that institutional accounts of international behavior, particularly those of a recent vintage such as neo-institutional variants, do not equate cooperation with harmony.⁶⁷ Rather, the latter

⁶⁰ *Id.* at 137.

⁶¹ *Id.* at 136–37; ROBERT GILPIN, WAR AND CHANGE IN WORLD POLITICS 145 (1981).

⁶² GILPIN, *supra* note 61, at 29.

⁶³ CHARLES P. KINDLEBERGER, THE WORLD IN DEPRESSION 1929–1939 305 (1973).

⁶⁴ KEOHANE, *supra* note 51, at 31.

⁶⁵ *Id.*

⁶⁶ *Id.* at 31–32.

⁶⁷ *Id.* at 51.

term is employed with reference to contexts where actors' moves, taken in their own self-interest without regard to others, "*automatically* facilitate the attainment of others' goals."⁶⁸ This manifests itself most vividly in the perfectly competitive markets conjured up by neoclassical economists, "in which the Invisible Hand ensures that the pursuit of self-interest by each contributes to the interest of all."⁶⁹

By contrast, cooperation presupposes a conscious adjustment, via well-defined channels, informal as well as formal; for example, customary law versus treaty law in the actions of players, which are not in pre-existent harmony and need to be realigned in order to bring about a higher degree of convergence.⁷⁰ This goal is typically pursued through a process of negotiation or policy coordination, whether explicit or implicit in nature,⁷¹ and "intergovernmental cooperation takes place when the policies actually followed by one government are regarded by its partners as facilitating realization of their own objectives, as the result of a process of policy coordination."⁷²

As indicated, cooperation is not altogether absent from the realist worldview.⁷³ Nor, by definition, is policy coordination.⁷⁴ Even given the lack of central authority capable of imposing constraints on the pursuit of sovereign interests, researchers who posit that States dwell in perpetual anarchy concede that cooperation and policy coordination is inherently possible and periodically takes place in a Hobbesian-like politico-economic setting.

Despite the absence of any ultimate international authority, governments often bind themselves to mutually advantageous courses of action. And, though no international sovereign stands ready to enforce the terms of the agreement, states can realize common interests through tacit cooperation, formal bilateral and multilateral negotiation, and the creation of international regimes.⁷⁵

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ See KEOHANE, *supra* note 51, at 51–52.

⁷¹ See *id.* at 51.

⁷² *Id.* at 51–52.

⁷³ See *id.* at 7, 51.

⁷⁴ See *id.* at 51.

⁷⁵ Kenneth A. Oye, *Explaining Cooperation under Anarchy: Hypotheses and Strategies*, 38 WORLD POL. 1, 1 (1985).

Moreover, the picture painted by realist scholars is not static. The prospects of cooperation and policy coordination may be enhanced in a variety of ways. For example, if inter-State interaction may be conceptualized in game-theoretic terms, there may be a potential to alter existing payoff structures in order to achieve more palatable outcomes from a system-wide and individual player perspective.⁷⁶ Iteration, or ongoing contact and exchanges, may produce similar effects in such circumstances.⁷⁷ The same apparently holds true for strategies focused on keeping the number of actors involved in any particular situation at relatively modest levels.⁷⁸

Expanding realist horizons notwithstanding, the notion of international cooperation and policy coordination has far deeper institutional roots. The idea of an international regime, while not inconsistent with augmented realist or neo-realist constructions of the international order, is also more closely aligned with institutional thinking.⁷⁹ Realist accommodation broadens its applicability, but the vigor, if any, is drawn from institutional sources.⁸⁰ In addition, analytical formulations derived from the latter inject great complexity into the relationship between regimes and the factors influencing their emergence and operations; “[a]lthough regimes themselves depend on conditions that are conducive to interstate agreements, they may also facilitate further efforts to coordinate policies.”⁸¹

When introduced in 1975, the concept of an international regime was defined as “a set of mutual expectations, rules and regulations, plans, organizational energies and financial commitments which have been accepted by a group of [S]tates.”⁸² This portrayal furnished the catalyst for substantial work on the subject, but as theoretical exploration and

⁷⁶ See *id.* at 1–11; Duncan Snidal, *The Game Theory of International Politics*, 38 *WORLD POL.* 25 (1985); Robert Axelrod & Robert O. Keohane, *Achieving Cooperation under Anarchy: Strategies and Institutions*, 38 *WORLD POL.* 228–232 (1985). See generally ROBERT AXELROD, *Introduction to THE COMPLEXITY OF COOPERATION: AGENT-BASED MODELS OF COMPETITION AND COOPERATION* (1997) (discussing the addition of complexity to the two-person iterated Prisoner’s Dilemma and the uses and techniques of complexity theory); KEOHANE, *supra* note 51, at 65–109 (discussing theories of cooperation and international regimes).

⁷⁷ See Oye, *supra* note 75, at 1–4, 12–18.

⁷⁸ See *id.* at 4, 18–22; see also Axelrod & Keohane, *supra* note 76, at 234–38.

⁷⁹ See KEOHANE, *supra* note 51, at 57–64.

⁸⁰ See *id.* at 63 (stating that “[t]heories of regimes can incorporate Realist insights about the role of power and interest, while also indicating the inadequacy of theories that define interests so narrowly that they fail to take the role of institutions into account.”).

⁸¹ *Id.* at 57.

⁸² John G. Ruggie, *International Responses to Technology: Concepts and Trends*, 29 *INT’L ORG.* 557, 570 (1975).

empirical research gathered momentum, the need to stretch the boundaries and provide further elaboration arose. A more comprehensive and detailed definition emerged from a subsequent conference devoted to systematically examining the evolving analytical underpinnings of international regimes.⁸³ It was collectively concluded at this juncture that regimes constitute:

sets of implicit or explicit principles, norms, rules and decision making procedures around which actors' expectations converge in a given area of international relations. Principles are beliefs of fact, causation, and rectitude. Norms are standards of behavior defined in terms of rights and obligations. Rules are specific prescriptions or proscriptions for action. Decision making procedures are prevailing practices for making and implementing collective choice.⁸⁴

This definition has four key components: principles, norms, rules, and decision making procedures.⁸⁵ The distinctions may be easier to establish at the theoretical than practical level. The underlying hierarchical structure, however, seems basically sound, featuring a logical progression from the general and strategic to the specific and operational elements.⁸⁶ Despite a certain degree of ambiguity, this remains the most authoritative definition of the concept of international regime, or at least one almost invariably employed as a starting point in the still expanding academic work on the subject.⁸⁷

The use of strong terms such as principles, norms, rules, and decision making procedures within a coherent analytical framework may convey the impression that proponents of the international regime notion, particularly those of institutional persuasion, view it as a fundamentally robust entity. This is not necessarily the case. They typically highlight the differences between domestic regimes and their international counterparts, emphasizing the inherent fragility of the latter.⁸⁸ Realists, of course, go further than institutionalists in this respect.⁸⁹

⁸³ See Stephen D. Krasner, *Structural Causes and Regime Consequences: Regimes as Intervening Variables*, in INTERNATIONAL REGIMES x, 2 (Stephen D. Krasner ed., 1983).

⁸⁴ *Id.* at 2.

⁸⁵ *Id.*

⁸⁶ See *id.* at 2–5.

⁸⁷ See *id.* at 2–4.

⁸⁸ See John G. Ruggie, *Continuity and Transformation in the World Polity: Toward a Neorealist Synthesis*, 35 WORLD POL. 261, 270 (1983).

⁸⁹ WALTZ, *supra* note 48, at 110. Cf. Ruggie, *supra* note 88 (critiquing Waltz's theory, as laid out in *Theory of International Politics*, as too static).

II. THE ECOLOGICAL DIMENSION

Environmental researchers embrace the concept of a regime as outlined in the international relations, politics, and economics literature; "regimes are social institutions consisting of agreed upon principles, norms, rules, procedures, and programs that govern the interactions of actors in specific issue areas."⁹⁰ Given the narrower scope of their theoretical and empirical inquiries, they tend, however, to accord greater attention to the specific components of the definition, or to distinguish more clearly between international orders and international regimes.⁹¹ The former are "broad, framework arrangements governing the activities of all (or almost all) the members of international society over a wide range of specific issues."⁹² The latter, "by contrast, are more specialized arrangements that pertain to well-defined activities, resources, or geographical areas and often involve only some subset of the members of international society."⁹³ Thus,

[w]e speak of the international regimes for whaling, the conservation of polar bears, the use of electromagnetic spectrum, and human activities in Antarctica. Because the members of international society are [S]tates, the rules or conventions of regimes apply, in the first instance, to the actions of [S]tates. Yet the parties actually engaging in the activities governed by regimes are frequently private entities such as multinational corporations, banks, fishing companies, or privately owned airlines.⁹⁴

In grappling with the notion of a regime, environmental scholars follow a similar path to that of their international relations counterparts, albeit not mechanically because their priorities may diverge, and serious concerns about ecological degradation may shift the focus toward impacts rather than causes.⁹⁵ Thus, they commonly address issues such as regime

⁹⁰ Oran R. Young & Mark Levy, *The Effectiveness of International Regimes*, in *THE EFFECTIVENESS OF INTERNATIONAL ENVIRONMENTAL REGIMES: CAUSAL CONNECTIONS AND BEHAVIORAL MECHANISMS* 1, 1 (Oran R. Young ed., 1999) (internal citation omitted) [hereinafter Young & Levy].

⁹¹ ORAN R. YOUNG, *INTERNATIONAL COOPERATION: BUILDING REGIMES FOR NATURAL RESOURCES AND THE ENVIRONMENT* 13 (1989).

⁹² *Id.*

⁹³ *Id.*

⁹⁴ *Id.* at 13–14.

⁹⁵ See, e.g., Oran R. Young, *Rights, Rules, and Resources in World Affairs*, in *GLOBAL GOVERNANCE: DRAWING INSIGHTS FROM THE ENVIRONMENTAL EXPERIENCE* 1, 12–13 (Oran R. Young ed., 1997) [hereinafter Young, *Rights, Rules, and Resources in World Affairs*].

characteristics, essence, regime types, regime formation, regime consequences and effectiveness, and regime change.⁹⁶ The question of regime implementation, which encompasses the subject of compliance, is generally dealt with in the broader context of consequences and effectiveness.⁹⁷

Regime characteristics are normally portrayed in terms echoing the established definition of the concept.⁹⁸ Given that States, even in capitalist societies, often hold title to a substantial portion of the land and its associated natural resources, a distinction is also frequently drawn between sovereign rights/*imperium* and property rights/*dominium*.⁹⁹ The purpose of the distinction is to highlight the fact that, impressions to the contrary notwithstanding, international environmental regimes primarily revolve around the former rather than the latter, i.e., entitlements of political authority as distinct from mechanisms designed to bring order into the interactions of property owners.¹⁰⁰

Some environmental researchers choose to emphasize the difference between substantive and procedural regime characteristics.¹⁰¹ The former refer to the prescriptive core of the regime, principles, norms, and rules, or, at a more concrete level, rights and obligations; and the latter, to “recognized practices relied [on] for handling situations requiring social or collective choices.”¹⁰² Some environmental regimes do not possess their own procedural instruments and depend on support from external sources, either provided by parallel regimes or based on arrangements embedded in the international order.¹⁰³ Designing and managing the procedural component of regime architecture may be a challenging undertaking as complex efficiency and equity considerations are often involved.¹⁰⁴

Several permutations are possible in classifying international environmental regimes. The relevant criterion may be the nature of the system that is being targeted—biological, physical, or a combination of the two.¹⁰⁵ Alternatively, the key yardstick may be the geographical scope of the

⁹⁶ *Id.*

⁹⁷ *See id.* at 5–18; ORAN R. YOUNG, INTERNATIONAL GOVERNANCE: PROTECTING THE ENVIRONMENT IN A STATELESS SOCIETY 26–32 (1994) [hereinafter YOUNG, INTERNATIONAL GOVERNANCE].

⁹⁸ *See, e.g.,* Young, *Rights, Rules, and Resources in World Affairs*, *supra* note 95, at 5–7.

⁹⁹ *Id.* at 6.

¹⁰⁰ *Id.* at 6–7.

¹⁰¹ *See* YOUNG, INTERNATIONAL COOPERATION, *supra* note 91, at 14–19.

¹⁰² *Id.* at 15, 18.

¹⁰³ *See id.* at 19.

¹⁰⁴ *Id.* at 15–19.

¹⁰⁵ *See* YOUNG, INTERNATIONAL GOVERNANCE, *supra* note 97, at 19.

regime—extending from the restricted to the global end of the continuum.¹⁰⁶ Another way to conceptualize scope might be in terms of the number of participants: limited versus all-inclusive.¹⁰⁷

However, the most widely invoked typology of international environmental regimes employs jurisdictional authority as the pertinent factor.¹⁰⁸ Broad ecological governance systems are thus classified into those focusing on international commons,¹⁰⁹ shared natural resources,¹¹⁰ and transboundary externalities.¹¹¹

The formation of international environmental regimes is approached from different perspectives that have not been synthesized.¹¹² Some researchers seek to identify the distinct stages through which the process evolves—“[t]he agenda formation stage, the negotiation stage, and the operationalization stage”¹¹³—or to explore the role played by autonomous influences in regime formation.¹¹⁴ This is an essentially descriptive undertaking, albeit one not wholly devoid of explanatory and evaluative elements.¹¹⁵

Explanation-centered frameworks generally target variables which may account for the emergence of international environmental regimes, including ideas emanating from epistemic communities, interplay of interests, power structure, and socio-political context.¹¹⁶ More complex

¹⁰⁶ *See id.*

¹⁰⁷ *See id.*

¹⁰⁸ *See id.*; Young, *Rights, Rules, and Resources in World Affairs*, *supra* note 95, at 7.

¹⁰⁹ Young, *Rights, Rules, and Resources in World Affairs*, *supra* note 95, at 8 (“International commons are . . . systems that lie wholly or largely outside the jurisdiction of any individual member of international society but that are of interest to two or more of them . . . [e]xamples . . . include high seas fisheries”).

¹¹⁰ *Id.* at 8 (“Shared natural resources . . . are . . . systems that extend into or across the jurisdictions of two or more members of international society.” One example is “pools of oil that underlie areas subject to the jurisdiction of two or more states.”).

¹¹¹ *Id.* at 8 (“Transboundary externalities arise when activities occurring wholly within the jurisdiction of one state nevertheless produce (normally unintended) consequences that affect the welfare of those located in other jurisdictions.”).

¹¹² *See* YOUNG, INTERNATIONAL GOVERNANCE, *supra* note 97, at 84–87.

¹¹³ *See* ORAN R. YOUNG, CREATING REGIMES: ARCTIC ACCORDS AND INTERNATIONAL GOVERNANCE 2 (1998) [hereinafter YOUNG, CREATING REGIMES].

¹¹⁴ *See* Young, *Rights, Rules, and Resources in World Affairs*, *supra* note 95, at 10–11 (The “approach . . . focuses on processes rather than problem structure and features a distinction among spontaneous or self-generating regimes, imposed regimes and negotiated regimes.”); *see also* YOUNG, INTERNATIONAL GOVERNANCE, *supra* note 97, at 84–87.

¹¹⁵ ORAN YOUNG & GAIL OSHERENKO, POLAR POLITICS: CREATING INTERNATIONAL ENVIRONMENTAL REGIMES 1–2 (Oran R. Young & Gail Osherenko eds., 1993); Young, *Rights, Rules, and Resources in World Affairs*, *supra* note 95, at 11; YOUNG, INTERNATIONAL COOPERATION, *supra* note 91, at 84–95.

¹¹⁶ Young, *Rights, Rules, and Resources in World Affairs*, *supra* note 95, at 12.

analytical systems are geared toward differentiating between successful and unsuccessful international environmental regime formation.¹¹⁷ Issues entailing value conflicts may thus prove less amenable to constructive management than those featuring conflicts of interest.¹¹⁸ By the same token, the characteristics of certain problems—e.g., coordination versus collaboration situations in that, in the parlance of game theory, the former have at least one equilibrium outcome—facilitate smooth adjustment in social/international settings, whereas others do not.¹¹⁹

International environmental regimes are dynamic rather than static.¹²⁰ Their attributes, which include content parameters, functional scope, geographical domain, membership, and procedural mechanisms, often undergo substantial transformations over time.¹²¹ The study of regime change may be viewed as an extension of regime formation.¹²² Some of the work in this area is predominantly descriptive in nature, outlining evolutionary patterns, specifically, endogenous or internally-induced versus exogenous or externally-induced and incremental or gradual versus discontinuous or nonlinear.¹²³ Other research is oriented toward finding explanations for departures from the status quo along the lines followed in examining regime formation. Ultimately, the models relied upon in both spheres are inspired by utilitarian, realist, institutional, and cognitivist schools of thought.¹²⁴

The consequences of international environmental regimes fall into two categories: simple effectiveness¹²⁵ and broader effects.¹²⁶ The former refers to the extent to which specific regime goals (liberally defined) are fulfilled,¹²⁷ and the latter are expected to reflect impacts that manifest themselves beyond a reasonably well-defined issue area.¹²⁸ With respect to

¹¹⁷ *Id.* at 10–11.

¹¹⁸ *Id.* at 10.

¹¹⁹ *Id.*

¹²⁰ See YOUNG, INTERNATIONAL GOVERNANCE, *supra* note 97, at 31.

¹²¹ See YOUNG, INTERNATIONAL COOPERATION, *supra* note 91, at 96–103.

¹²² See *id.* at 95–96 (“[T]hey evolve continuously in response to their own inner dynamics as well as to changes in the political, economic and social environments.”); see also YOUNG, INTERNATIONAL GOVERNANCE, *supra* note 97, at 31–32.

¹²³ YOUNG, INTERNATIONAL GOVERNANCE, *supra* note 97, at 31–32.

¹²⁴ See *id.* at 84–87.

¹²⁵ See Oran R. Young, *The Consequences of International Regimes*, in REGIME CONSEQUENCES: METHODOLOGICAL CHALLENGES AND RESEARCH STRATEGIES 3, 5–7 (Arild Underdal & Oran R. Young eds., 2004) [hereinafter Young, *Consequences of International Regimes*].

¹²⁶ See *id.* at 7–11.

¹²⁷ See *id.* at 5–7.

¹²⁸ See *id.* at 7–11.

regime effectiveness, the adjective “simple” is preferred to “narrow”, but this does not imply that the theoretical and methodological issues encountered are easy to dissect.¹²⁹ Notably, regime goals may be ambiguous, controversial, elusive, and fluid.¹³⁰ Regime standards may also pose considerable conceptual and measurement challenges.¹³¹

Regime effectiveness hinges, *inter alia*, on compliance.¹³² In his seminal work on social justice, the prominent social philosopher John Rawls draws a distinction between ideal theory and partial compliance theory.¹³³ The former is applicable to circumstances where principles, norms, rules, rights, and obligations are invariably respected.¹³⁴ The latter, on the other hand, deals with situations in which principles, norms, rules, rights, and obligations may be disregarded.¹³⁵ Some international environmental regimes qualify as effective ones, but others receive mixed or negative scores in systematic assessment exercises.¹³⁶ Rawlsian-style partial compliance is a factor in the equation.¹³⁷

Compliance, in both its substantive and procedural forms, is not the sole determinant of international environmental regime effectiveness or broad consequences.¹³⁸ A scrupulous adherence to the provisions of a regime, as well as to its spirit, cannot in itself guarantee effectiveness.¹³⁹

¹²⁹ See *id.* at 5–6.

¹³⁰ See *id.* at 6. See also YOUNG, INTERNATIONAL GOVERNANCE, *supra* note 97, at 144–145.

¹³¹ See Young, *Consequences of International Regime*, *supra* note 125, at 11–19.

¹³² See YOUNG, INTERNATIONAL GOVERNANCE, *supra* note 97, at 146–47 (discussing the importance of compliance for the validity and effectiveness of regimes).

¹³³ See JOHN RAWLS, A THEORY OF JUSTICE 351 (1971).

¹³⁴ See *id.*

¹³⁵ See *id.* at 351–52.

¹³⁶ See, e.g., EDWARD L. MILES ET AL., ENVIRONMENTAL REGIME EFFECTIVENESS: CONFRONTING THEORY WITH EVIDENCE 63, 174 (Edward L. Miles et al. eds., 2002).

¹³⁷ See ORAN R. YOUNG, RESOURCE REGIMES: NATURAL RESOURCES AND SOCIAL INSTITUTIONS 36–37 (1982) [hereinafter YOUNG, RESOURCE REGIMES].

¹³⁸ See Harold K. Jacobson & Edith Brown Weiss, *A Framework for Analysis*, in ENGAGING COUNTRIES: STRENGTHENING COMPLIANCE WITH INTERNATIONAL ENVIRONMENTAL ACCORDS 1, 4–6 (Edith Brown Weiss & Harold K. Jacobson eds., 1998) [hereinafter Jacobson & Weiss, *A Framework for Analysis*]; Harold K. Jacobson & Edith Brown Weiss, *Compliance with International Environmental Accords: Achievements and Strategies*, in INTERNATIONAL GOVERNANCE ON ENVIRONMENTAL ISSUES 78, 83 (Mats Rolén, Helen Sjöberg & Uno Svedin eds., 1997) [hereinafter Jacobson & Weiss, *Compliance with International Environmental Accords: Achievements and Strategies*].

¹³⁹ See Ronald B. Mitchell, *Compliance Theory: An Overview*, in IMPROVING COMPLIANCE WITH INTERNATIONAL ENVIRONMENTAL LAW 3, 24–26 (James Cameron, Jacob Werksman & Peter Roderick eds., 1996) [hereinafter Mitchell, *Compliance Theory*]; Jacobson & Weiss, *A Framework for Analysis*, *supra* note 138, at 5–6.

Several additional influences may be at play.¹⁴⁰ The consensus among international legal scholars appears to be that the implementation of such regimes should not be equated with compliance.¹⁴¹

Nor should compliance be regarded as an entirely positive phenomenon, as adherence to the provisions of a flawed international environmental regime may, for instance, prove problematic.¹⁴² Moreover, the broad and often unintended consequences of compliance may at times be negative.¹⁴³ For example, they may lead to an erosion of civil liberties.¹⁴⁴ In addition, conformity to the principles, norms, rules, and procedures of an international environmental regime may be a costly proposition.¹⁴⁵ The financial burden may include a wide range of transaction costs, notably those associated with efforts to monitor performance and deter or handle violations.¹⁴⁶

Some of the research directed at compliance with international environmental regimes is of the descriptive variety. The purpose is to determine its prevalence and the forms that it typically assumes. With respect to the latter, a distinction is commonly drawn between centralized and decentralized compliance mechanisms.¹⁴⁷ A more elaborate classificatory scheme, but one that reflects broadly similar structural patterns, differentiates between spontaneous compliance¹⁴⁸ and induced

¹⁴⁰ See, e.g., YOUNG, INTERNATIONAL GOVERNANCE, *supra* note 97, at 150–51; Young, *Consequences of International Regimes*, *supra* note 125, at 5–11; Ronald B. Mitchell, *Evaluating the Performance of Environmental Institutions: What to Evaluate and How to Evaluate It*, in INSTITUTIONS AND ENVIRONMENTAL CHANGE: PRINCIPAL FINDINGS, APPLICATIONS, AND RESEARCH FRONTIERS 78, 83–84 (Oran R. Young, Leslie A. King & Heike Schroeder eds., 2008); Arild Underdal, *One Quest, Two Answers*, in ENVIRONMENTAL REGIME EFFECTIVENESS: CONFRONTING THEORY WITH EVIDENCE 1–4 (Edward L. Miles et al. eds., 2002).

¹⁴¹ See, e.g., Jacobson & Weiss, *Compliance with International Environmental Accords: Achievements and Strategies*, *supra* note 138, at 83; Jacobson & Weiss, *A Framework for Analysis*, *supra* note 138, at 4; YOUNG, INTERNATIONAL GOVERNANCE, *supra* note 97, at 146–47.

¹⁴² Jacobson & Weiss, *A Framework for Analysis*, *supra* note 138, at 5.

¹⁴³ YOUNG, RESOURCE REGIMES, *supra* note 137, at 41.

¹⁴⁴ *Id.*

¹⁴⁵ See *id.* at 128–30; YOUNG, INTERNATIONAL COOPERATION, *supra* note 91, at 21, 71.

¹⁴⁶ See YOUNG, RESOURCE REGIMES, *supra* note 137, at 128–30.

¹⁴⁷ YOUNG, INTERNATIONAL COOPERATION, *supra* note 91, at 43–44; YOUNG, RESOURCE REGIMES, *supra* note 137, at 55.

¹⁴⁸ M.J. Peterson, *International Organizations and the Implementation of Environmental Regimes*, in GLOBAL GOVERNANCE: DRAWING INSIGHTS FROM THE ENVIRONMENTAL EXPERIENCE 115, 117 (Oran R. Young ed., 1997) [hereinafter Peterson, *International Organizations*] (“Spontaneous compliance occurs when an actor aligns its conduct to regime prescriptions (or even goes beyond them) by its own volition and would do so even if the regime did not exist.”).

compliance.¹⁴⁹ Falling between these two contrasting categories is regime-enabled compliance.¹⁵⁰

Most of the work undertaken in this area, however, is geared toward explaining and improving compliance with international environmental regimes.¹⁵¹ The strategy followed is not fully integrated, but the two issues on the agenda are interrelated.¹⁵² The principal focus of this work is on the factors that account for the adherence of relevant actors and States to the provisions of a regime.¹⁵³ These factors, in conjunction with other pertinent influences, may then be employed, in a manner consistent with the prevailing circumstances, to enhance the functioning of compliance mechanisms and, where appropriate, regime simple effectiveness and broad consequences.¹⁵⁴

The explanatory and policy-oriented studies are characterized by a tension between the utilitarian and realist perspectives and institutional and cognitivist perspectives.¹⁵⁵ The former are inspired by neoclassical economics and ascribe compliance with international environmental regimes to actor or State self-interest.¹⁵⁶ Adherence to regime prescriptions is strong when the benefits exceed the costs by a comfortable margin and weak when the pattern reverses.¹⁵⁷ A host of factors shape perceptions of advantage and disadvantage, and the cost-benefit calculus often includes probabilistic elements, such as the likelihood of non-compliance being detected.¹⁵⁸

The notion of self-interest is not devoid of ambiguity.¹⁵⁹ Institutionalists and cognitivists argue that short-term and long-term utilitarian and realist considerations may diverge.¹⁶⁰ While the former may

¹⁴⁹ *Id.* ("Induced compliance occurs when an actor aligns its conduct with regime prescriptions only after others alter their perception of the situation by shaming or providing rewarding, or threatening or inflicting deprivations.").

¹⁵⁰ *Id.* ("Regime-enabled compliance occurs when a previously passive actor aligns its conduct with regime prescriptions because the existence of the regime removes one or more barriers to action.").

¹⁵¹ See, e.g., Jacobson & Weiss, *Compliance with International Environmental Accords: Achievements and Strategies*, *supra* note 138, at 92–110; Peterson, *International Organizations*, *supra* note 148, at 115; Mitchell, *Compliance Theory*, *supra* note 139, at 3–28.

¹⁵² See Mitchell, *Compliance Theory*, *supra* note 139, at 3.

¹⁵³ See Jacobson & Weiss, *A Framework for Analysis*, *supra* note 138, at 6–12.

¹⁵⁴ See *id.* at 11–12.

¹⁵⁵ See Mitchell, *Compliance Theory*, *supra* note 139, at 3.

¹⁵⁶ See *id.* at 6–9.

¹⁵⁷ See *id.*; see also *supra* notes 142–46 & accompanying text.

¹⁵⁸ See Mitchell, *Compliance Theory*, *supra* note 139, at 7–9.

¹⁵⁹ See *id.*

¹⁶⁰ See *id.* at 8–9.

favor non-compliance, the latter may exert influence in the opposite direction.¹⁶¹ Moreover, self-interest does not always operate as an autonomous force but comes into play in highly interactive settings, including interdependent self-interest versus independent self-interest.¹⁶² The corollary is that even utility-maximizing actors and States may incorporate into their expectations the potential impact of their decisions or compliance on other players.¹⁶³

The distinction between coordination and collaboration game-like situations is crucial in this context.¹⁶⁴ In the former, each actor or State prefers compliance as long as enough other actors or States choose to do likewise.¹⁶⁵ The exact distribution of the net benefits of compliance hinges on the form of coordination, but once others opt to comply, the dominant strategy for all lies in adhering to regime prescriptions.¹⁶⁶ The international power structure determines which behavioral equilibrium is adopted, with the strong prevailing over the weak, but has no tangible effect on whether the equilibrium is maintained.¹⁶⁷ By contrast, in collaboration games, to which environmental problems often bear a degree of similarity, “each actor’s dominant strategy is to violate, even if others comply.”¹⁶⁸

Institutionalists and cognitivists relegate naked self-interest in all its incarnations—short-term, long-term, independent, or interdependent—to the analytical periphery. Instead, as the key components of a viable explanatory framework, they focus on international and domestic politico-economic settings (where discernible shifts, creating new realities, may impinge on compliance), regime attributes (where ambiguities, incoherence, inconsistencies, inefficiencies, inequities, opaqueness, and structural deficiencies may impede adherence), resources (where capacity constraints may play a negative role), international socio-political dynamics (which may lead to the internalization of regime prescriptions across the globe), and even inadvertence.¹⁶⁹

¹⁶¹ *See id.*

¹⁶² *See id.* at 9.

¹⁶³ *Id.*

¹⁶⁴ *See Mitchell, Compliance Theory, supra* note 139, at 9–11 (“Coordination and collaboration game models help clarify the operation of such interdependent conceptions of self interest.”).

¹⁶⁵ *Id.*

¹⁶⁶ *Id.*

¹⁶⁷ *Id.* at 10.

¹⁶⁸ *Id.*

¹⁶⁹ *See, e.g., id.* at 11–13.

Such differences have substantial policy implications. Utilitarians/realists view positive inducements and negative sanctions, coupled with effective enforcement, as the principal mechanisms to counter the built-in tendency toward non-compliance with international environmental regimes.¹⁷⁰ Institutionalists and cognitivists regard non-adherence to regime prescriptions as the exception to the rule and a phenomenon that may be addressed through non-punitive strategies grounded in logic, which extends beyond probability-adjusted cost-benefit calculations.¹⁷¹ According to them, the solution lies in removing general and regime-specific obstacles that prevent actors or States from achieving the high conformity to which they aspire.¹⁷²

III. CHINA'S INTERNATIONAL RESPONSIBILITY AND COMPLIANCE

The complex relationship between China and the international community has seldom lacked academic and policy attention, although the disposition, focus, and intensity have varied over time.¹⁷³ At the current juncture, the disposition is moderately favorable but tinged with skepticism, the focus is wide, and the intensity is considerable.¹⁷⁴ Being in the limelight is, in this case, the inevitable outcome of the dramatic strengthening in the economic and military position of a richly-endowed country.¹⁷⁵

Yet, despite its increasing prominence and the conservatism that it normally begets, China cannot be considered as a mainstream player at the center of the international politico-economic arena.¹⁷⁶ From a Western perspective, its positioning (*dingwei*) is ambiguous.¹⁷⁷ It is not clear whether this regional and global power is in, out, or sitting on the

¹⁷⁰ Mitchell, *Compliance Theory*, *supra* note 139, at 14–16.

¹⁷¹ *See id.* at 16–23.

¹⁷² *Id.* at 22–23 (“Some international standards rely on efforts to raise obstacles to, and otherwise prevent, non-compliance . . .”).

¹⁷³ *See, e.g.*, Hongying Wang, *Multilateralism in Chinese Foreign Policy: The Limits of Socialization*, in CHINA'S INTERNATIONAL RELATIONS IN THE 21ST CENTURY: DYNAMICS OF PARADIGM SHIFTS 71, 71 (Weixing Hu et al. eds., 2000) [hereinafter Wang, *Multilateralism*].

¹⁷⁴ *See, e.g., id.*

¹⁷⁵ *See id.*; GERALD CHAN, CHINA'S COMPLIANCE IN GLOBAL AFFAIRS: TRADE, ARMS CONTROL, ENVIRONMENTAL PROTECTION, HUMAN RIGHTS 17–28 (2006).

¹⁷⁶ *See* CHAN, *supra* note 175, at 18 (“China faces many difficulties in its development path: apart from its huge population . . . it is still a relatively backward developing country in the midst of drastic and fundamental socioeconomic changes.”).

¹⁷⁷ *See id.* at 25–28.

fence.¹⁷⁸ It may support the status quo, challenge it, single-handedly or in conjunction with other players on the periphery of the system, or refrain from providing consistently unequivocal signals.¹⁷⁹ Therein lies the reason for lingering skepticism regarding its strategic intentions.

China's ambivalence stems from the perception that the international community, as presently constituted, is not necessarily organized in an equitable fashion.¹⁸⁰ Rather, it is viewed as an entity shaped by Western values and interests, underpinned by regimes that are the product of hegemonic and Western designs and leadership.¹⁸¹ The legacy of 19th century gunboat diplomacy complicates matters further by breeding a sense of victimhood, which is slow to dissipate in the face of shifting power realities of China's rise and Western stagnation.¹⁸² The prevailing belief, apparently, is that the country "owes nothing to the outside world."¹⁸³

From a Western standpoint, historical experience is also not entirely reassuring with respect to the potential for ongoing smooth interaction within an established politico-economic order.¹⁸⁴ China has experienced cycles of international cooperation and withdrawal throughout its existence.¹⁸⁵ The post-1978 open door policy has been vigorously pursued for over three decades, but it was preceded by an almost equally long period characterized by virtually total isolation and hostility.¹⁸⁶ Recent developments are regarded as a cause for cautious optimism, yet strategic reversals cannot be ruled out altogether.¹⁸⁷

The corollary is that subtly socializing China, or rendering it generally compliant with the international politico-economic status quo, is a Western policy goal, explicitly or implicitly.¹⁸⁸ As is often the case in such intricate circumstances, it may have unintended consequences.¹⁸⁹ Learning through active participation in international community processes

¹⁷⁸ See *id.* at 26, 28.

¹⁷⁹ See *id.* at 25–28.

¹⁸⁰ See *id.* at 25.

¹⁸¹ See *id.*

¹⁸² See CHAN, *supra* note 175, at 25–27.

¹⁸³ See *id.* at 13.

¹⁸⁴ See *id.* at 30–31.

¹⁸⁵ See *id.* 31–32.

¹⁸⁶ See *id.*

¹⁸⁷ See *id.*

¹⁸⁸ See Wang, *Multilateralism*, *supra* note 173, at 71.

¹⁸⁹ See *id.* at 71–72 (mentioning the Cold War as an example).

and passive exposure via parallel channels may indeed encourage liberal-style cooperation.¹⁹⁰ It may, however, heighten awareness of the use of power in international settings and reinforce strategies rooted in notions of *realpolitik*.¹⁹¹

Besides direct and indirect policy action geared toward maximizing constructive compliance, there is a systematic effort to determine whether China is, in fact, living up to such lofty, albeit somewhat asymmetrical, expectations.¹⁹² The issue is couched at the strategic level in terms of actor or State responsibility.¹⁹³ The fundamental question in this context for those acutely sensitive to the benefits of Chinese cooperation and the costs of confrontation or indifference is whether this increasingly powerful country is behaving in an internationally responsible fashion.¹⁹⁴

Western definitions of State responsibility encapsulate liberal-democratic principles, including “humanity—is the *raison d’être* of any legal system . . . the protection and development of the human dignity of the individual . . . [and] to maximize benefits not for states but for individuals living within States, all the way from freedom of speech and elections, on the one hand, to freedom from hunger and the right to education.”¹⁹⁵ More specific international legal definitions emphasize the binding nature of reciprocal obligations linking States.¹⁹⁶

One attempt to synthesize the key elements found in the multi-level definitions has yielded a conceptual scheme consisting of three principal dimensions: national responsibility, international responsibility, and humanitarian responsibility.¹⁹⁷ The first refers to the State’s responsibility toward its own citizens, such as safeguarding their personal security.¹⁹⁸ The second refers to the state’s responsibility vis-à-vis other states, such as contributing to the maintenance of international

¹⁹⁰ See *id.* at 81–82.

¹⁹¹ See *id.* at 82.

¹⁹² See, e.g., CHAN, *supra* note 175.

¹⁹³ See *id.* at 11–30.

¹⁹⁴ See *id.* at 30–32.

¹⁹⁵ See LORI F. DAMROSCH, LOUIS HENKIN & SEAN D. MURPHY, *INTERNATIONAL LAW: CASES AND MATERIALS* 19 (3d ed. 1993).

¹⁹⁶ See MALCOLM N. SHAW, *INTERNATIONAL LAW* 778–843 (Cambridge University Press 6th ed. 2008).

¹⁹⁷ ROBERT JACKSON & GEORG SORESENSEN, *INTRODUCTION TO INTERNATIONAL RELATIONS: Theories and Approach* 146–48 (Oxford University Press 3d ed. 2007).

¹⁹⁸ *Id.* at 146–47.

peace and order.¹⁹⁹ The third refers to the state's responsibility to adhere to universal humanitarian standards, notably, in the promotion and protection of human rights.²⁰⁰

Many Chinese scholars, whether or not echoing the official line, have not embraced this scheme or the underlying spirit.²⁰¹ These scholars draw a distinction between the responsibilities of general powers, regional powers, and superpowers.²⁰² These actors have different local, regional, and global responsibilities.²⁰³ General powers are expected "[t]o pursue basic security and basic wealth [locally] . . . [t]o acquire 'strategic borders'" regionally and do little globally.²⁰⁴ The function of regional powers is "[t]o secure basic security and basic wealth [locally] . . . [t]o acquire 'security circles'" regionally and to exercise growing influence globally."²⁰⁵

China is viewed as a middle-ranking or regional power because of its relative underdevelopment and the serious challenges that it faces.²⁰⁶ Thus, it need not exercise the responsibilities of superpowers, which include the imperative "[t]o consolidate basic security and basic wealth [locally] . . . [t]o acquire spheres of influence [regionally] . . . [and] [t]o dominate the global order."²⁰⁷ It is interesting to note that this classification is virtually devoid of any liberal-democratic elements and is heavily skewed toward security considerations, both economic and militaristic.²⁰⁸

Given such divergent constructions across the two sides of the cultural divide, assessment of China's actions in terms of responsibility-centered criteria is a task fraught with considerable difficulties.²⁰⁹ Because the research conducted in this area is largely inspired by Western paradigms, most proposed evaluation schemes are not likely to fully reflect the underlying differences.²¹⁰ Indeed, even Chinese scholars tend to approach the subject from an essentially conventional

¹⁹⁹ *Id.* at 147.

²⁰⁰ *Id.* at 147–48.

²⁰¹ *See, e.g.*, CHAN, *supra* note 175, at 39–42.

²⁰² *Id.* at 40–41.

²⁰³ *Id.* at 41.

²⁰⁴ *Id.*

²⁰⁵ *Id.*

²⁰⁶ *Id.* at 41–42.

²⁰⁷ CHAN, *supra* note 175, at 41.

²⁰⁸ *See id.* at 41.

²⁰⁹ *See id.* at 43–44.

²¹⁰ *See id.*

perspective.²¹¹ For example, one scholar highlights the relevance of “collective governance, acceptance of the norms of the international community, awareness of security interdependence, management of the regional balance of power, and non-initiation of conflicts.”²¹²

The perpetual chasm and risk of selective representation notwithstanding, this is territory in which students of global affairs have chosen to tread. One particularly ambitious empirically based, but not quantitatively oriented, project has employed participation in multilateral institutions as a proxy for responsible state conduct since it is a behavioral dimension which is relatively easy to operationalize and where the issue of data availability does not pose serious difficulties.²¹³

The picture that has emerged is mixed. On the positive side, passive participation, in the form of membership, is strong; moreover, the trend, across the board is toward greater involvement.²¹⁴ On the negative side, active participation, which entails monetary, personnel and policy contributions, as well as physical support, leaves something to be desired from a Western viewpoint.²¹⁵ China would presumably counter, however, that such a trend is a reflection of its—and perhaps the entire international periphery’s—historical marginalization, and Chinese involvement is commensurate with the country’s perceived status as a middle-ranking power undergoing rapid, but uneven, modernization.²¹⁶

Compliance, a strategically and hierarchically related but not theoretically and practically overlapping concept, is less socio-culturally bound than responsibility and consequently more amenable to analytical and empirical manipulation.²¹⁷ Compliance should not be considered in isolation, particularly when applied in complex historical settings, yet it is inevitably likely to be subject to greater academic and policy scrutiny than notions over which international opinion is deeply divided.²¹⁸ On the face of it, the issues confronted in addressing the

²¹¹ See Sijin Cheng, *Gauging China's Capabilities and Intentions Under Deng and Mao*, in *POWER AND RESPONSIBILITY IN WORLD AFFAIRS: REFORMATION VERSUS TRANSFORMATION* 103 (Cathal J. Nolan ed., 2004).

²¹² *Id.*

²¹³ See CHAN, *supra* note 175, at 46–61 (analyzing membership, monetary, personnel and policy contributions, and being host to headquarters and secretariats as indicators of participation).

²¹⁴ See *id.* at 46–47.

²¹⁵ See *id.* at 50–57.

²¹⁶ See *id.* at 56–59.

²¹⁷ See *id.* at 63–67.

²¹⁸ See *id.* at 65.

correspondence between regime prescriptions and actor or State behavior appear to be technical rather than fundamental in nature.²¹⁹

The intricacy of these issues should not be minimized. Notably, there is considerable scope for conflicting interpretations as to what constitutes non-compliance.²²⁰ Weak adherence to regime prescriptions may thus be portrayed as falling in the following categories: “[m]inor technical or inadvertent problem . . . [d]ifferent interpretations or gaps in treaty language . . . [s]ignificant, detected, overt violations . . . [s]ignificant, detected, but covert violations . . . [and] suspected covert violations of possible significance.”²²¹ The standards of proof relied upon in such circumstances, such as “a smoking gun . . . a preponderance of evidence . . . [or] beyond a reasonable doubt,” also vary substantially.²²²

Again, however, these are deemed to be less intractable issues, and the subject of state compliance thus attracts ongoing attention on a scale that State responsibility does not.²²³ This attention also manifests itself in more concrete forms and China is no exception: its adherence to international regime prescriptions has been examined broadly²²⁴ and in specific policy domains, including arms control,²²⁵ human rights,²²⁶ and trade.²²⁷

²¹⁹ CHAN, *supra* note 175, at 69–70.

²²⁰ *Id.* at 69.

²²¹ *Id.* at 70.

²²² *Id.* at 69.

²²³ *See id.* at 63–68.

²²⁴ *See, e.g., id.* at 70–76.

²²⁵ *See, e.g.,* CHAN, *supra* note 175, at 111–142; *see also* WENDY FRIEMAN, CHINA, ARMS CONTROL, AND NONPROLIFERATION (2004); Michael Swaine & Alastair I. Johnston, *China and Arms Control Institutions*, in CHINA JOINS THE WORLD: PROGRESS AND PROSPECTS (Elizabeth C. Economy & Michel Oksenberg eds., 1999).

²²⁶ *See, e.g.,* CHAN, *supra* note 175, at 173–202. *See generally* ANN KENT, BETWEEN FREEDOM AND SUBSISTENCE: CHINA AND HUMAN RIGHTS (1993); ANN KENT, CHINA, THE UNITED NATIONS, AND HUMAN RIGHTS: THE LIMITS OF COMPLIANCE (1999); Ann Kent, *Chinese Values and Human Rights*, in HUMAN RIGHTS IN ASIA: A REASSESSMENT OF THE ASIAN VALUE DEBATE 83 (Leena Avonius & Damien Kingsbury eds., 2008); Andrew J. Nathan, *China and the International Human Rights Regime*, in CHINA JOINS THE WORLD 136 (Elizabeth C. Economy & Michel Oksenberg eds., 1999).

²²⁷ *See, e.g.,* CHAN, *supra* note 175, at 79–109. *See generally* NICHOLAS R. LARDY, INTEGRATING CHINA INTO THE GLOBAL ECONOMY (2002); Jeremy Paltiel, *Hinges and Latches on the Open Door: The Normative Parameters of China's WTO Accession*, in CHINA'S REFORMS AND INTERNATIONAL POLITICAL ECONOMY 131 (David Zweig & Zhimin Chen eds., 2007); Margaret M. Pearson, *China's Integration into the International Trade and Investment Regime*, in CHINA JOINS THE WORLD: PROGRESS AND PROSPECTS 161 (Elizabeth C. Economy & Michel Oksenberg eds., 1999); Gerald Chan, *China and the WTO: The Theory and Practice of Compliance*, 4 INT'L REL. ASIA-PAC. 47 (2004); Icksoo Kim, *Accession into the*

The environment, too, has loomed on the research agenda, albeit with a bias toward the domestic side.

At the general level, China's international legal compliance has been proxied by its treaty engagement.²²⁸ This is not an entirely satisfactory measure because not all treaties are equal and it does not encompass non-treaty—i.e., customary and soft-law.²²⁹ Moreover, signing a treaty is not tantamount to observing its letter and spirit.²³⁰ Nevertheless, the escalation in treaty commitments during the post-1978 reform era cannot be overlooked.²³¹ It is indicative of a far more constructive posture than seen during the preceding revolutionary period; although, the consensus view as conventionally articulated is that there is considerable room for further improvement.²³²

This pattern is witnessed across the policy spectrum. The methodological instruments employed to gauge compliance are predominantly qualitative in nature.²³³ To the extent that quantitative tools are used, there is a tendency to rely on membership or participation in regimes as the principal measurement vehicle.²³⁴ The picture painted is mixed overall but uneven in terms of individual spheres of government activity.²³⁵ Interestingly, compliance with WTO provisions, which is potentially costly, qualifies as satisfactory.²³⁶ The arms control and human rights records, particularly the latter, are less solid, yet perhaps better than might be expected in the circumstances and improving over time.²³⁷ Where adherence to regime prescriptions leaves something to be desired, from the perspective of regime architects and controllers, direct and indirect international pressure is brought to bear on China at strategically and tactically appropriate junctures.²³⁸ It is a moot

WTO: External Pressure for Internal Reforms in China, 11 J. CONTEMP. CHINA 433 (2002); Miron Mushkat & Roda Mushkat, *The Political Economy of Sovereignty Revisited: A Re-examination of the Public Choice Model in Light of China's Accession to the World Trade Organization*, 7 ASPER REV. INT'L BUS. TRADE L. 115 (2007).

²²⁸ See generally CHAN, *supra* note 175, at 70–76 (discussing China's treaty engagement).

²²⁹ *Id.* at 64.

²³⁰ *Id.* at 70.

²³¹ See *id.* at 73–76.

²³² See *id.*

²³³ See *id.* at 204.

²³⁴ See CHAN, *supra* note 175, at 204.

²³⁵ See *id.*

²³⁶ See *id.* at 205.

²³⁷ See *id.*

²³⁸ See *id.* at 207–09.

point whether such efforts are well-orchestrated and whether they are entirely effective.²³⁹

No wide-ranging and cohesive theoretical framework emerges, but ample analytical insights are provided. They principally pertain to factors facilitating and impeding compliance.²⁴⁰ These factors do not fall into a single theoretical category; some are consistent with utilitarian and realist assertions.²⁴¹ Others lend support to institutionalist and cognitivist arguments.²⁴² It is reasonable to claim, on the basis of the macro- and micro-level explorations undertaken, that knowledge regarding actor and State adherence to international regime prescriptions needs to be built from the bottom up by methodically aggregating findings generated in specific policy domains such as ecosystem management.²⁴³

IV. THE ENVIRONMENTAL CONTEXT

As indicated, international legal compliance tends to vary from one issue area to another. This is most likely to be the case in large, heterogeneous, and fast-industrializing countries.²⁴⁴ Intense centrifugal pressures throughout the public decision making pyramid are bound to reinforce the strategic divergence.²⁴⁵ China fits those criteria.²⁴⁶ This, in conjunction with the inherently different nature of the problems faced by the Party and State bureaucracy in individual spheres of socio-economic activity, explains why adherence to international ecological regime prescriptions does not follow a pattern entirely consistent with that witnessed elsewhere.²⁴⁷

At the same time, the underlying centripetal forces, autonomous or policy induced, bring about a certain degree of system-wide harmony.²⁴⁸ In terms of treaty engagement, a pivotal variable encountered earlier, it is not surprising to note that the level of involvement on the environmental front was distinctly low before 1978 and that it rose

²³⁹ See *id.* at 201–02.

²⁴⁰ See, e.g., CHAN, *supra* note 175, at 66.

²⁴¹ See *id.* at 64, 90, 99.

²⁴² See *id.*

²⁴³ See *id.* at 151, 207.

²⁴⁴ See *id.* at 204–05; LIEBERTHAL, *supra* note 30, at 321, 330.

²⁴⁵ See LIEBERTHAL, *supra* note 30, at 286, 301.

²⁴⁶ See generally *id.* at 245–335.

²⁴⁷ See *id.* at 288.

²⁴⁸ See *id.* at 323.

dramatically in subsequent years.²⁴⁹ Clearly, the fundamental ideological and policy shift that materialized shortly following the death of Mao Zedong has propelled the whole decision making apparatus toward greater openness/international engagement.²⁵⁰

As pointed out previously, signing treaties, even willingly and virtually without exception, should not be equated with scrupulous international legal compliance.²⁵¹ Actor and State motivations for entering into an agreement and its capabilities to conclude this phase of the process may be stronger than those that come into play during the maintenance stage.²⁵² That said, treaty engagement on such a scale is arguably indicative of a growing propensity to play by the rules of the evolving international environmental game, subject to the proviso that other things need to be equal.²⁵³

Additional proxies employed to gauge, qualitatively as well as quantitatively, China's compliance with the emerging ecological world order have included robust policy commitments and substantial measures—including legislative, regulatory, judicial, and administrative measures at the national and sub-national levels—to build environmental protection machinery.²⁵⁴ It has thus been argued that its leaders, and elites in general, have embraced unambiguously and with an increasing sense of urgency the principle of sustainable development as widely construed.²⁵⁵ While they expect developed countries to contribute proportionally more toward its fulfillment, this is not necessarily supposed to detract from their own strategic obligations.²⁵⁶

A policy commitment, however strong, cannot be viewed in isolation. China has other overarching goals, notably rapid economic expansion, which probably serves best the interests of the political regime and ruling elite.²⁵⁷ It is a moot point to determine the extent to which the country's leaders are willing to sacrifice output growth for environmental

²⁴⁹ See Alastair Iain Johnston, *China and International Environmental Institutions: A Decision Rule Analysis*, in *ENERGIZING CHINA: RECONCILING ENVIRONMENTAL PROTECTION AND ECONOMIC GROWTH* 570 (Michael B. McElroy, Chris P. Nielsen & Peter Lydon eds., 1998); CHAN, *supra* note 175, at 70–76.

²⁵⁰ See LIEBERTHAL, *supra* note 30, at 335; CHAN, *supra* note 175, at 70–76.

²⁵¹ See CHAN, *supra* note 175, at 70.

²⁵² See *id.* at 75–76.

²⁵³ See *id.* at 149.

²⁵⁴ See *id.* at 149–54.

²⁵⁵ *Id.* at 150.

²⁵⁶ See *id.* at 150–51.

²⁵⁷ See CHAN, *supra* note 175, at 152, 212–13.

preservation/sustainable development.²⁵⁸ There is an apparent desire to shift from extensive to intensive modes of industrial production, and concrete steps have been taken toward this end.²⁵⁹ The balancing act, however, still definitely favors vigorous economic expansion, albeit less emphatically than in the past.²⁶⁰

In addition to some fine-tuning of strategic priorities, there has been a veritable outpouring of ecologically friendly legislative and regulatory initiatives during the more mature phases of the reform era.²⁶¹ The ambitious 1989 Environmental Protection Act, which constitutes the framework legislation in this policy domain, is generally regarded as a watershed in the evolution of the statutory response to the ecological challenge, but there have been numerous similarly-inspired specific pieces of legislation (e.g., air pollution and control law, noise pollution prevention and control law, solid waste prevention and control law, water pollution and prevention law, natural resources conservation law, and criminal law).²⁶² The underlying principles have been incorporated into a host of government strategies, such as cleaner production concepts, environmental liability tenets, environmental management, land planning rules, prevention first approaches, and treble simultaneity principles.²⁶³

²⁵⁸ See Zhang & Wang, *China's Sustainable Development Strategy and International Cooperation on Environment*, in IMPLEMENTING INTERNATIONAL LAW IN GERMANY AND CHINA 7–9 (Zhenghua Tao & Rudiger Wolfrum eds., 2001). See generally ECONOMY, *supra* note 3, at 91–128 (claiming that China's reforms have been successful but insufficient in meeting environmental challenges). *But cf.* CHAN, *supra* note 175, at 151–52 (discussing the gains that the Chinese environmental protection group has made against the ministry responsible for economic policies).

²⁵⁹ See Zhang & Wang, *China's Sustainable Development Strategy and International Cooperation on Environment*, *supra* note 258, at 7–9. See generally ECONOMY, *supra* note 3, at 91–128 (claiming that China's reforms have been successful but insufficient in meeting environmental challenges); LIEBERTHAL, *supra* note 30, at 279–81 (discussing environmental problems that originated in China before 1978); MURRAY & COOK, *supra* note 13, at 178–209 (discussing China's guiding principles and policies in addressing environmental issues).

²⁶⁰ See MURRAY & COOK, *supra* note 13, at 54–97, 213; ECONOMY, *supra* note 3, at 81; LIEBERTHAL, *supra* note 30, at 281–286 (discussing Maoism and the environment in China).

²⁶¹ See CHAN, *supra* note 175, at 143–71.

²⁶² See *id.*

²⁶³ See generally *id.*; ROSS, *supra* note 13; Michel Oksenberg & Elizabeth C. Economy, *China: Implementation under Economic Growth and Market Reform*, in ENGAGING COUNTRIES: STRENGTHENING COMPLIANCE WITH INTERNATIONAL ENVIRONMENTAL ACCORDS 353, 353–94 (Edith Brown Weiss & Harold K. Jacobson eds., 1998); BARBARA J. SINKULE & LEONARD ORTOLANO, IMPLEMENTING ENVIRONMENTAL POLICY IN CHINA

An elaborate institutional edifice has been erected to underpin ecologically-supportive policy, legislative, and regulatory undertakings.²⁶⁴ Its core consists of the National People's Congress ("NPC"), the highest arm of the State, whose members meet briefly once a year and have the collective authority, *inter alia*, "to enact all 'basic laws' . . . and to make amendments to the Constitution";²⁶⁵ the NPC Standing Committee, whose members meet on a bimonthly basis and have the power to pass laws other than those in the domain of the larger body they represent, as well as "to interpret the Constitution and 'basic laws' . . .";²⁶⁶ the State Council, the principal executive organ, which has the authority to enact "administrative regulations . . . pursuant to constitutional and national law";²⁶⁷ the ministries, commissions and departments which are competent to issue administrative rules;²⁶⁸ the Commission for Environmental and Natural Resources Protection ("CENRP"), which develops general ecological strategies and guidelines, and coordinates environmental protection efforts under the auspices of the State Council;²⁶⁹ and the State Environmental Protection Administration ("SEPA"), an administrative arm of the NPC, which formulates specific ecological policies, issues regulations, sets standards, provides guidelines, conducts countrywide supervisory activities, and exercises nationwide control.²⁷⁰

It should be emphasized that this is not a highly centralized configuration.²⁷¹ Relevant ministries, including Agriculture, Energy, Forestry, and Water Resources have the authority to issue key environmental regulations.²⁷² "Local People's Congresses and their respective

(1995); Ying Song, *The Chinese Environmental Lawmaking Framework*, 1 CHINESE J. INT'L L. 225 (2002); Eric W. Orts, *Environmental Law with Chinese Characteristics*, 11 WM. & MARY BILL RTS. J. 547 (2003); Richard J. Ferris Jr. & Hongjun Zhang, *Reaching Out to the Rule of Law: China's Continuing Efforts to Develop an Effective Environmental Law Regime*, 11 WM. & MARY BILL RTS. J. 569 (2003); Stefanie Beyer, *Environmental Law and Policy in the People's Republic of China*, 5 CHINESE J. INT'L L. 185 (2006); Roda Mushkat, *Implementing Environmental Policy in Transitional Settings: The Chinese Experience*, 18 S. CAL. INTERDISC. L.J. 45 (2008).

²⁶⁴ Beyer, *supra* note 263, at 188.

²⁶⁵ *Id.*

²⁶⁶ *Id.*

²⁶⁷ *Id.*

²⁶⁸ *Id.*

²⁶⁹ *Id.* at 188–89.

²⁷⁰ *See* Beyer, *supra* note 263, at 189.

²⁷¹ *See id.* at 188 ("The administrative structure has become increasingly decentralized in recent years, where responsibilities and functions are split between central and local institutions.").

²⁷² *See id.* at 189.

standing committees are authorized to adopt local regulations . . . [consistent] . . . with superior legislation and regulations.”²⁷³ Local governments have the authority to introduce local administrative rules.²⁷⁴ The Environmental Protection Bureaus (“EPBs”), which operate at the sub-national level and are funded by local governments, carry responsibilities, subject to appropriate constraints, in areas under their jurisdiction for all facets of ecological management, including legislative, regulatory, organizational, and supervisory.²⁷⁵

As a potentially vital dispute resolution mechanism, the judicial system has acquired certain breadth and possibly even depth.²⁷⁶ Like the institutional framework, the dispute resolution body is not a tightly structured institution, but one extending from the Supreme People’s Court to the local people’s courts, and encompassing special-purpose courts.²⁷⁷ Other less formal organizational vehicles, such as People’s Mediation Committees, play a complementary role because of the traditional propensity to view judicial intervention as a measure of last resort.²⁷⁸ The tradition of viewing judicial intervention as a measure of last resort is partly due to cultural influences reflecting Confucian misgivings about pursuing social harmony by reconciling subjective rights of individual persons seeking to defend their own interests and partly for political and social reasons rooted in official reluctance to encourage individual rights.²⁷⁹

While the development of the environmental protection system has been characterized by a degree of inertia, the process has not been devoid of innovation, particularly in recent years.²⁸⁰ Non-governmental organizations (“NGOs”) have been allowed, even selectively encouraged, to enter the ecological arena and have had some impact on the formulation and implementation of environmental policy.²⁸¹ There has been growing

²⁷³ *Id.*

²⁷⁴ *Id.*

²⁷⁵ *Id.*

²⁷⁶ See Beyer, *supra* note 263, at 189–91.

²⁷⁷ See *id.* at 189–90.

²⁷⁸ See *id.* at 190.

²⁷⁹ See *id.*

²⁸⁰ See, e.g., Neil T. Carter & Arthur P. J. Mol, *China and the Environment: Domestic and Transnational Dynamics of a Future Hegemon*, 15 ENVTL. POL. 330, 332 (2006). The author states “[i]t has become clear . . . that a major transformation in environmental governance in China is under way.” *Id.*

²⁸¹ See Peter Ho, *Greening without Conflict: Environmentalism, NGOs, and Civil Society in China*, 32 DEV. & CHANGE 893 *passim* (2001); Han Shi & Lei Zhag, *China’s Environmental Governance of Rapid Industrialisation*, 15 ENVTL. POL. 271 *passim* (2006).

willingness to consider market-harnessing methods, at least in terms of the final destination, as an alternative to command-and-control regulatory techniques.²⁸² New forms of litigation have emerged and have not been stamped out by the political regime.²⁸³

Such efforts, which are intensifying, have yielded concrete benefits, and may be indicative of a strategic determination to pursue ecological preservation via international as well as domestic channels.²⁸⁴ Yet, a distinction must be drawn between quantity and quality, and institution-building should not be equated with institutional effectiveness.²⁸⁵ Vast legislative and regulatory output has not necessarily translated into a coherent, consistently evolving, practically meaningful, and transparent set of regime prescriptions.²⁸⁶

Ambiguity, indeterminacy, and rhetorical orientation substantially diminish the impact of rules and standards as instruments for guiding and assessing behavior.²⁸⁷ Poor visibility further undermines their usefulness and credibility.²⁸⁸ Moreover,

[c]hallenging the government's interpretation of such 'secret' legislation presents a formidable challenge to knowing violators. Furthermore, the ability of local authorities to disclose such statutes only when it is convenient for them to do so enables them to attempt enforcement only in . . . clear cases where they are most likely to prevail.²⁸⁹

Authoritative and clear statutory interpretation may offset legislative opaqueness in certain circumstances.²⁹⁰ In this particular case,

²⁸² See, e.g., MA & ORTOLANO, *supra* note 13, at 13–32; Richard D. Morgenstern et al., *Emissions Trading to Improve Air Quality in an Industrial City in the People's Republic of China*, in CHINA'S ENVIRONMENT AND THE CHALLENGE OF SUSTAINABLE DEVELOPMENT 150–59 (Kristen A. Day ed., M.E. Sharpe 2005).

²⁸³ See generally Alex Wang, *The Role of Law in Environmental Protection in China: Recent Developments*, 8 VT. J. ENVTL. L. 195 (2007).

²⁸⁴ See generally Beyer, *supra* note 263.

²⁸⁵ See *id.* at 205–08.

²⁸⁶ See *id.*

²⁸⁷ See John Copeland Nagle, *The Missing Chinese Environmental Law Statutory Interpretations Cases*, 5 N.Y.U. ENVTL. L.J. 517, 546–50 (1996).

²⁸⁸ See *id.* at 550 (“[M]any statutes are not published. This is especially true of regional and local legislation, which foreign entities often discover only after local authorities claim it has been violated.”).

²⁸⁹ *Id.*

²⁹⁰ See *id.* at 253–54, 517–18 (recognizing the value of statutory interpretation in the United States when compared with the limited statutory interpretation in China, while

however, the multi-layered and segmented nature of the policy structure renders that objective a rather challenging proposition.²⁹¹ As has been amply demonstrated, “China has developed a nuanced system of ‘legislative,’ ‘judicial’ and ‘administrative’ statutory interpretation.”²⁹² The key pillars of this system—the NPC Standing Committee, the Supreme People’s Court, the State Council, the Supreme People’s Procuratorate, and the lower courts—do not necessarily operate as a well-integrated and cohesive entity.²⁹³

Even if this were not a formidable problem, compliance with environmental laws would not necessarily improve markedly.²⁹⁴ The legally sanctioned incentives are, for the most part, simply too puny to prompt an adjustment in agent behavior.²⁹⁵ For example,

[e]ffluent fees are often smaller than the cost of complying with the statute, and violators can generally recover what fees they do pay in order to purchase the equipment required to meet statutory standards in the future. Likewise, some violators of China’s endangered species legislation have escaped with fines of less than two dollars. Indeed, some Chinese environmental statutes have failed to provide for any penalties, thus precluding any enforcement of the substantive requirements.²⁹⁶

Vertical fragmentation of the politico-economic structure is an even more serious source of incentive distortion and incompatibility.²⁹⁷ National and local interests are often misaligned, and the power configuration and control mechanisms are such that the strategic center in Beijing may not be able to induce compliance on the part of the geographic periphery, even when it is motivated to do so.²⁹⁸ To some extent, this is a universal phenomenon, but it assumes a particularly acute form in such a diverse and vast country that is burdened with a

recognizing that the end results of the U.S.’s vast statutory interpretation and China’s limited statutory interpretation may be the same).

²⁹¹ *Id.* at 525.

²⁹² *Id.*

²⁹³ Nagle, *supra* note 287, at 525–27.

²⁹⁴ *See id.* at 540–41.

²⁹⁵ *Id.*

²⁹⁶ *Id.*

²⁹⁷ *See, e.g.*, Beyer, *supra* note 263, at 207–08.

²⁹⁸ *See id.*

legacy of politico-bureaucratic reforms not conducive to institutional coherence.²⁹⁹ As notable researcher Stefanie Beyer observes:

Generally, the success or failure of laws depends on how effective they are enforced, especially at the local level. However, local governments are often major shareholders of polluting enterprises creating an inherent conflict of interest. Nevertheless, the laws presume that environmental protection bureaus representing a part of local governments will successfully coordinate with the national body, SEPA. In theory, the People's Republic of China operates a unitary national [S]tate where legislation and directives emanate from central Beijing to which sub-national units of governments must adhere. In practice, however, this high degree of administrative cohesion does not exist. The laws fail to anticipate the possibility that certain government interests might diverge sharply from those of the environment department and create a major obstacle to strict enforcement of both national and local environmental legislation.³⁰⁰

As Beyer further points out:

In reality, sub-national administrative departments rather tend to look to the people's governments at their own level than to the central authorities since their funding and enforcement powers rely on local district authorities. The fact that local governments often sponsor or own industries themselves and consider environmental regulation to be incompatible with economic growth makes it difficult for environmental protection bureaus to enforce their policy. Although the State Environmental Protection Agency has formal authority over lower-level agencies, this national agency does not have much leverage in ensuring that national regulations and standards are enforced at the local level. It is common practice that environmental issues are treated more as a matter of policy rather than law and personal relations are often

²⁹⁹ *See id.*

³⁰⁰ *Id.*

decisive. Fees and fines are rarely determined authoritatively; instead, they are often negotiated and fall far below the cost of damage that the harmful activity has caused, as well as below expenses for pollution control facilities.³⁰¹

This pattern is largely attributable to flawed policy implementation strategies.³⁰² During the revolutionary era, China relied primarily on the bureaucratic-authoritative model, which entails a high degree of power centralization at the apex of the politico-bureaucratic pyramid, and the exhortational type, which features ad hoc mass campaigns designed to mobilize substantial segments of the population in order to alleviate crisis-like environmental conditions.³⁰³ Administrative decentralization, involving a far-reaching transfer of power from national to sub-national units, was also periodically embraced, with decidedly negative consequences.³⁰⁴

The market-exchange approach, predicated on the notion that the pursuit of self-interest by agents within a regulatory framework grounded in micro-economic logic may produce outcomes consistent with the public interest, was not considered to be a viable option for ideological and politically-related reasons.³⁰⁵ Administrative decentralization has been the cornerstone of the post-1978 institutional reform initiatives, severely upsetting the delicate balance between the national decision-making apparatus and the geographic periphery.³⁰⁶ Market-oriented reforms have been implemented in a stepwise fashion, at least until 1994, and more decisively in the economic than politico-bureaucratic domain.³⁰⁷

The chasm between central and local government is believed to be symptomatic of a broader pattern of authoritarian fragmentation.³⁰⁸

³⁰¹ *Id.*

³⁰² *See id.* at 208; *see also* Bryan Bachner, *Regulating Pollution in the People's Republic of China*, 7 *COLO. J. INT'L ENVTL. L. & POL'Y* 373, 383–84 (1996); Nagle, *supra* note 287, at 536–38.

³⁰³ *See* ROSS, *supra* note 13, at 11–20; Lester Ross, *The Implementation of Environmental Policy in China*, 15 *ADMIN. & SOC'Y* 489, 492–97 (1984).

³⁰⁴ *See* JINGLIAN WU, *UNDERSTANDING AND INTERPRETING CHINESE ECONOMIC REFORM* 44–57 (2005).

³⁰⁵ *See id.* at 54–57.

³⁰⁶ *See id.*

³⁰⁷ *See id.* at 57–68.

³⁰⁸ *See* KENNETH G. LIEBERTHAL & MICHEL OKSENBERG, *POLICY MAKING IN CHINA: LEADERS, STRUCTURES, AND PROCESSES* 137–38 (1988).

This term is employed to convey the idea that seemingly strong one-party rule is not necessarily consistent with a high degree of institutional cohesion.³⁰⁹ Chinese organizations across the policy spectrum and at all levels of the politico-bureaucratic pyramid, consisting of units, kingdoms, and systems that are mostly self-contained, do not readily share resources and are reluctant to coordinate their activities.³¹⁰ Lines of authority also tend to be blurred, leading to an overly fluid configuration referred to as “too many mothers-in-law.”³¹¹

Unproductive strategy implementation or formulation games are not confined to this particular cultural setting. However, the fragility of inter-organizational relationships in China renders the task of overcoming parochial resistance, building coalitions, and sustaining collective action a highly challenging one.³¹² The process is also inherently costly because it is characterized by a substantial diversion of resources, deflection of policy goals, administrative friction, and dissipation of energy.³¹³ This manifests itself amply in the environmental domain because “regulated parties are asked to take part in programs that impose costs but leave them with few direct benefits.”³¹⁴

A number of micro-level, empirical studies highlight the gap between regime prescriptions and implementation realities and, by implication, compliance in that fragmented institutional setting.³¹⁵ Those focusing on rural areas, far removed from the politico-administrative center, are particularly illuminating.³¹⁶ In Yuhang, on the fringes of Zhejiang province, merely three out of eight implementation instruments were utilized, and those three were used rather sporadically.³¹⁷ Lax regulation and enforcement was due primarily to concerns about the

³⁰⁹ *See id.*

³¹⁰ *See* SINKULE & ORTOLANO, *supra* note 263, at 12–20; *see also* LIEBERTHAL & OKSENBERG, *supra* note 308, at 137–38; BUREAUCRACY, POLITICS, AND DECISION MAKING IN POST-MAO CHINA 6–12 (Kenneth G. Lieberthal & David M. Lampton eds., 1992).

³¹¹ *See* SINKULE & ORTOLANO, *supra* note 263, at 16; *see also* BUREAUCRACY, POLITICS, AND DECISION MAKING IN POST-MAO CHINA, *supra* note 310, at 6–12.

³¹² *See supra* notes 308–11.

³¹³ *See* EUGENE BARDACH, THE IMPLEMENTATION GAME 66 (1977); SINKULE & ORTOLANO, *supra* note 263, at 46–50, 188–91.

³¹⁴ SINKULE & ORTOLANO, *supra* note 263, at 19.

³¹⁵ *See* Kate E. Swanson, Richard G. Kuhn, & Wei Xu, *Environmental Policy Implementation in Rural China: A Case Study of Yuhang, Zhejiang*, 27 ENVTL. MGMT. 481, 482–83 (2001).

³¹⁶ *See id.*

³¹⁷ *Id.* at 485–86.

financial implications of environmental protection for small enterprises struggling to maintain positive profit margins.³¹⁸

A survey conducted in rural areas of Anhui province paints a similar picture: a handful of ecological preservation mechanisms were employed, and those relied upon were basically ineffective and applied lackadaisically.³¹⁹ There was no serious attempt to assess their usefulness.³²⁰ Potentially more impactful tools and modes of strategy execution were neither tentatively experimented with nor considered in earnest.³²¹ Rather, regulators and enforcement officers went through the motions in a minimalist fashion.³²²

Interestingly, the administrators encountered in the rural outskirts of Yunnan province were, at least initially, less passive and more determined, and yet they failed to come to grips with the local power dynamics and interest structure.³²³ They kept on pursuing their agenda forcefully but mechanically.³²⁴ Eventually, local forces prevailed, and the whole effort yielded meager results.³²⁵ The corollary is that structurally-induced incentive incompatibility hinders effective implementation, and hence compliance, on the geographic periphery.³²⁶

The patterns observed in urban areas are fundamentally no different: as an examination of the execution of cleaner production programs undertaken in Changzhou and Nantong, two cities in the Jiangsu province, revealed widespread organizational malfunctioning due to system-wide fragmentation.³²⁷ Vertical controls were poor; inter-agency coordination was weak.³²⁸ Substantial misalignment existed between high-level strategic guidelines and low-level operating procedures.³²⁹

³¹⁸ See *id.* at 486–87; see also Geping Qu & Jinchang Li, POPULATION AND THE ENVIRONMENT IN CHINA 40–41 (1994); Abigail R. Jahiel, *The Contradictory Impact of Reform on Environmental Protection in China*, 149 CHINA Q. 81, 94–95 (1997).

³¹⁹ See William A. Alford et al., *The Human Dimension of Pollution Policy Implementation: Air Quality in Rural China*, 11 J. CONTEMP. CHINA 495 (2002).

³²⁰ See *id.* at 498–513.

³²¹ See *id.*

³²² See *id.*

³²³ See Benjamin van Rooij, *Implementation of Chinese Environmental Law: Regular Enforcement and Political Campaigns*, 37 DEV. & CHANGE 57, 65–69 (2006).

³²⁴ See *id.*

³²⁵ See *id.* at 67–69.

³²⁶ See *id.* at 69.

³²⁷ Hongyan O. He & Leonard Ortolano, *Implementing Cleaner Production Programs in Changzhou and Nantong, Jiangsu Province*, 37 DEV. & CHANGE 99, 117 (2006).

³²⁸ *Id.*

³²⁹ *Id.*

Implementation failures were commonly experienced, and there were no built-in institutional devices to address them.³³⁰

Nor has the revamping of the judiciary progressed sufficiently to alleviate concerns about its ability to function autonomously in a political setting where the ruling party enjoys virtually unlimited discretion to adjust the rules of the game, and the contours of the legal landscape are precariously fluid.³³¹ Even at this late juncture in the reform process, the formal independence granted by the Constitution to this potentially crucial organizational dispute resolution vehicle is severely tempered by a host of serious constraints: notably, the strong influence of the Communist Party, which manifests itself directly and indirectly through numerous channels.³³²

Given its persistently marginal status, the judiciary is inadequately equipped financially, organizationally, and in terms of professional skill level, to fulfill its intended role in policy implementation in the environmental domain and on other fronts.³³³ Political preference for alternative modes of dispute resolution further undermines its institutional capabilities.³³⁴ It remains to be seen whether recent proposals to establish a specialized court to handle ecological matters will be pursued in earnest and, if so, whether they will materially impinge on prevailing judicial realities.³³⁵

SEPA, another potentially vital element in the compliance equation, confronts challenges similar to those facing the judiciary.³³⁶ Specifically, it is thought to be a relatively toothless institution deprived of the substantial financial, human, information, political, social, and technological resources needed to accomplish its strategic mission.³³⁷ SEPA's organizational weaknesses result in excessive dependence on locally-based players who are subject to powerful ground-level pressures and are thus unlikely to follow central policy guidelines in many circumstances.³³⁸ Moreover,

³³⁰ *Id.* at 117–18.

³³¹ See Nagle, *supra* note 287, at 529–33.

³³² See *id.* Nagle states “The Chinese Constitution provides for a judiciary that is independent from the other branches of government. That formal independence is tempered in reality by a variety of constraints on the power of Chinese courts.” *Id.* at 531.

³³³ See *id.* at 531–36.

³³⁴ See *id.* at 550–51; Beyer, *supra* note 263, at 189–91.

³³⁵ See, e.g., Darcey J. Goelz, *China's Environmental Problems: Is a Specialized Court the Solution?*, 18 PAC. RIM L. & POL'Y J. 155, 186–87 (2009).

³³⁶ See Beyer, *supra* note 263, at 207–08.

³³⁷ *Id.*

³³⁸ *Id.* at 208.

weak inter-agency coordination leads to an unhealthy institutional isolation, detracting from its ability to implement a burgeoning regulatory agenda.³³⁹

A degree of caution must be exercised in drawing inferences, positive or negative, about compliance with international regime prescriptions on the basis of domestic performance alone. Since the latter may not fully reflect the former, it behooves researchers to incorporate qualitative and quantitative findings generated by studies explicitly addressing the international dimension of the issue. Unfortunately, such information is scarce and selectively focused because it has been produced for somewhat different purposes. A detailed examination is available of China's involvement in the development of the United Nations Framework Convention on Climate Change ("UNFCCC").³⁴⁰ It could be possible to tentatively argue that the generally active engagement and constructive posture displayed throughout the process might be indicative of a strong determination to ensure, subject to the prevailing constraints, scrupulous implementation and compliance.³⁴¹ This would not be an entirely unrealistic analytical leap but might not necessarily qualify as a solidly-underpinned conclusion.

More directly relevant are the elaborate surveys of China's adherence to the provisions of the Montreal Protocol on Substances that Deplete the Ozone Layer.³⁴² Here, concrete evidence can be marshaled to demonstrate that, following an initial failure to comply with the required standards, a pattern of procedural and substantive conformity has been sustained.³⁴³ This is not a simple case in that such a favorable outcome probably would have not materialized without generous financial and technical assistance provided via a multilateral vehicle; international support for developing countries is the norm rather than the

³³⁹ See *id.*; Ferris & Zhang, *supra* note 263, at 595–96.

³⁴⁰ See generally Abram Chayes & Charlotte Kim, *China and the United Nations Framework Convention on Climate Change*, in *ENERGIZING CHINA: RECONCILING ENVIRONMENTAL PROTECTION AND ECONOMIC GROWTH* 503–40 (Michael B. McElroy, Chris P. Nielsen & Peter Lydon eds., 1998) (discussing China's involvement in the UNFCCC).

³⁴¹ See *id.* at 513–15; Wu Baozhong, He Kebin, Fan Yuansheng & Zhao Weijun, *The Status and Trend of China's Policies on Climate Change*, in *ENERGIZING CHINA: RECONCILING ENVIRONMENTAL PROTECTION AND ECONOMIC GROWTH* 545 (Michael B. McElroy, Chris P. Nielsen & Peter Lydon eds., 1998).

³⁴² See generally Zhao, *Implementing International Environmental Treaties in Developing Countries*, 5 *GLOBAL ENVTL. POL.* 58 (2005) (examining China's compliance with the Montreal Protocol on Substances That Deplete the Ozone Layer).

³⁴³ See *id.* at 61–64.

exception in the environmental domain, and its existence is no reason for overly skeptical interpretations.³⁴⁴

Clearly, that may not be a representative sample, and additional work on the subject is needed to determine the extent of compliance with international environmental regime prescriptions and identify the factors influencing it. A comparison with the picture on the foreign trade and investment front may be appropriate in this context. That is a more intensively researched area where attention has shifted at the margin from the half-empty to the half-full segment of the proverbial international behavior glass. At the same time, the negative side has not been overlooked and the studies conducted suggest that, despite the progress recorded, China remains partially, rather than wholly, integrated into the global economy.³⁴⁵

Empirical shades of grey, not resting on a comprehensive factual foundation, inevitably lead to theoretical polarization. Sufficient information has been generated, without dispelling the lingering uncertainty, to justify claims expressed either in utilitarian and realist or institutional and cognitivist terms.³⁴⁶ The latter may have gained currency in recent years as the process of international integration has accelerated and deepened, but the notion that robust self-interest is the principal force shaping China's environmental policy at home and abroad has by no means been consigned to oblivion.³⁴⁷

Utilitarians and realists discern a pattern whereby local policy makers prefer other countries to make firm commitments to alleviate global ecological problems, leaving China in a position to capture the resultant benefits and enhance its techno-economic capabilities in the process.³⁴⁸ Given its size and environmental predicament, China cannot pursue with impunity a free-riding strategy. Avoidance of international commitments, as distinct from minimal cooperation, by such a substantial

³⁴⁴ See, e.g., Jimin Zhao, *The Multilateral Fund and China's Compliance with the Montreal Protocol*, 11 J. ENV'T & DEV. 331, 331–54 (2002); Zhao, *Implementing International Environmental Treaties*, *supra* note 342, at 66; Jimin Zhao & Leonard Ortolano, *The Chinese Government's Role in Implementing Multilateral Environmental Agreements: The Case of the Montreal Protocol*, 175 CHINA Q. 708, 714–15 (2003).

³⁴⁵ See CHAN, *supra* note 175, at 79–109; Lardy, *supra* note 227, at 5.

³⁴⁶ See *supra* notes 240–43.

³⁴⁷ See *id.*; CHAN, *supra* note 175, at 166–71 (discussing China's compliance with international environmental efforts).

³⁴⁸ See CHAN, *supra* note 175, at 162–63; Zhao & Ortolano, *supra* note 344, at 708.

player might aggravate global ecological imbalances and is thus not necessarily the optimal course of action in this particular case.³⁴⁹

Individual/unilateral benefits and community/multilateral ones are regarded as competitive rather than complementary.³⁵⁰ The situation is akin to that prevailing in the arms control area, where unilateral security is deemed to be a superior goal to multilateral security.³⁵¹ In the environmental domain, rapid economic development takes precedence over ecological preservation:

Arguably both valuations are rooted in a fundamentally *realpolitik* view of how to improve China's status in the international system. The primary route is to develop 'a rich [S]tate and strong army' (*fu guo qianq bing*), the former defined primarily by gross economic and technological measures, and the latter defined primarily by relative military capabilities.³⁵²

Both physical size and profoundly adverse environmental conditions at home, however, militate against an unambiguously non-cooperative posture.³⁵³

Another factor apparently looming in the cost-benefit calculus is concern about international image/reputation.³⁵⁴ A favorable image may bring trust, facilitate the development of advantageous relationships, and allow the exploitation of a wide range of potentially profitable opportunities.³⁵⁵ A poor image may encourage other parties to form counter-vailing coalitions, increase scrutiny of a player's performance, and take punitive action, like the imposition of sanctions.³⁵⁶ The quality of image and reputation may also have material domestic repercussions in that leaders' or power-holders' standings may be significantly affected.³⁵⁷

Image (*xingxiang*) is closely intertwined with Confucian notions of moral hierarchy, while it is also shaped by historical experiences of

³⁴⁹ See Johnston, *supra* note 249, at 556; Zhao & Ortolano, *supra* note 344, at 708.

³⁵⁰ See Johnston, *supra* note 249, at 558.

³⁵¹ *Id.*

³⁵² *Id.* at 558.

³⁵³ *Id.* at 558–59.

³⁵⁴ See *id.* at 560–62.

³⁵⁵ *Id.* at 560.

³⁵⁶ Johnston, *supra* note 249, at 560.

³⁵⁷ *Id.* at 561–62.

national fragility, humiliation, and oppression by more powerful States.³⁵⁸ Image may thus prompt China to be overly assertive or highly sensitive in dealing with international environmental issues.³⁵⁹ Utilitarians and realists, nevertheless, comfortably accommodate it within their rationalist framework.³⁶⁰

Utilitarians and realists believe that Chinese environmental policy making, including implementation, is characterized by a high degree of stability and revolves around a number of economic-style principles:

(1) Maximize material capabilities above all . . . (2) Avoid high cost commitments . . . (3) If avoidance incurs image costs, then try to avoid commitments but join low cost, high profile activities . . . (4) If the opportunities to pursue material gains unilaterally are closed off, and [you have] little choice but to join multilateral negotiations, then [you] should try to build coalitions to weaken commitments . . . (5) If unilateral opportunities to maximize relative capabilities are closed off, and coalition building unsuccessful, then [you] should choose the least constraining options; try to prevent the toughening of any commitments that cannot be avoided (e.g., try to dilute compliance requirements).³⁶¹

A distinction between adaptation and learning underlies the more positive reading of the situation by institutionalists and cognitivists.³⁶² It has its origins in debates about the nature of shifts in Soviet strategy

³⁵⁸ *See id.* at 562.

³⁵⁹ *See id.* at 562–64.

³⁶⁰ *Id.* at 564. The author explains that:

Once image concerns enter the calculus these can lead to more cooperative behavior. However, as long as the payoffs from unilateral utility maximization remain higher than the payoffs from cooperation in the image gain, the player will have incentives to try one of three tactics: reduce the effects of image constraints, secure gains from image while minimizing its commitments, or head off greater commitments without appearing to free ride, i.e., low cost activism.

Id.

³⁶¹ *Id.* at 565.

³⁶² *See generally* Alastair I. Johnston, *Learning versus Adaptation: Explaining Change in Chinese Arms Control Policy in the 1980s and 1990s*, 35 CHINA J. 27 (1996).

initiated by Gorbachev in the late 1980s and early 1990s.³⁶³ Some analysts attributed the new accommodative stance to a pragmatic adaptation reflecting diminished capabilities and hence the need to seek an *entente cordiale* with former adversaries, notably, the United States and China.³⁶⁴ Others provided a less restrictive interpretation and suggested that it was the product of deeper learning featuring the internationalization of liberal ideas regarding peace, security, and world order encountered in the West, culminating in a “new thinking” and breakthroughs on the arms control and disarmament front.³⁶⁵

Institutionalists and cognitivists opine that China is learning rather than adapting in the international environmental domain.³⁶⁶ The original impetus for entering the global arena may have been the product of hard-nosed strategic considerations, as distinct from altruistic motives, i.e., *realpolitik* versus *idealkpolitik*.³⁶⁷ Yet, as a complete novice facing a very high degree of uncertainty, it was predisposed, according to persuasion theory, to comply with international regime prescriptions.³⁶⁸ Moreover, following entry it has been exposed to stimuli bound to trigger processes of learning and or socialization, and these processes have resulted in the acquisition of cooperative norms and modes of behavior.³⁶⁹

Such transformation is not assumed to materialize overnight or to be a straightforward undertaking devoid of any friction and instrumental elements. Rather, it is supposed to evolve gradually and in an iterative fashion.³⁷⁰ Strategic interaction, including tough bargaining, may co-exist with softer forms of learning/socialization.³⁷¹ Progress is

³⁶³ *Id.* at 27–29.

³⁶⁴ *Id.* at 28.

³⁶⁵ *See id.* at 28–29.

³⁶⁶ *See* CHAN, *supra* note 175, at 148–55, 215–16.

³⁶⁷ *See* Johnston, *supra* note 249, at 558. *See also* Johnston, *Learning Versus Adaptation*, *supra* note 362, at 31–36 (discussing the differences between *realpolitik* and *idealkpolitik*).

³⁶⁸ *See* ANN KENT, BEYOND COMPLIANCE: CHINA, INTERNATIONAL ORGANIZATIONS, AND GLOBAL SECURITY 245–46 (2007); Jeffrey T. Chekel, *Why Comply? Social Learning and European Identity Change*, 55 INT’L ORG. 553, 562–63 (2001).

³⁶⁹ *See* CHAN, *supra* note 175, at 153–55, 170–71, 203–05, 214–16; KENT, BEYOND COMPLIANCE, *supra* note 368, at 245–48; KENT, CHINA, THE UNITED NATIONS, AND HUMAN RIGHTS, *supra* note 226, at 240–44.

³⁷⁰ *See* KENT, BEYOND COMPLIANCE, *supra* note 368, at 64; Yu Hongyuan, *International Institutions and Transformation of China’s Decision-making on Climate Change Policy*, 1 CHINESE J. INT’L POL. 497, 518–19 (2007).

³⁷¹ KENT, BEYOND COMPLIANCE, *supra* note 368, at 51–53; Hongyuan, *supra* note 370, at 518–19.

achieved, but reversals are not uncommon. As the engagement deepens, however, the players become increasingly aware of their interdependence and more attuned to the interests they collectively share.³⁷²

These theoretical propositions are not without empirical foundation; there is evidence to support the argument that China's participation in ecologically-focused United Nations bodies such as the Commission for Sustainable Development ("CSD"), the Global Environmental Facility ("GEF"), and the U.N. Environmental Program ("UNEP") has had some impact, albeit uneven, on China's international, as well as domestic, policy orientation and behavior.³⁷³ The same observation may tentatively be offered with respect to its involvement in the multi-dimensional and multi-year global climate change efforts.³⁷⁴

Cultural dynamics is not viewed as an entirely autonomous force by utilitarians/realists, who deem rationalist impulses to be more potent. Their treatment of China's tendency to invoke its cultural uniqueness in order to be exempted from compliance with international regime prescriptions is typical in this respect.³⁷⁵ They portray it in largely opportunistic terms, claiming that it is often deliberately employed to maximize benefits and minimize costs, even in sensitive spheres of international activity such as human rights.³⁷⁶

Institutionalists and cognitivists deal with cultural influences in a more flexible fashion, but this does not necessarily enhance the cogency of their assertions in the case under consideration here. Reliance on *guanxi*, or social connections, may at times bolster environmental compliance, yet it is normally resorted to for the purpose of avoiding the associated burden.³⁷⁷ Face-saving tactics, penchant for informal problem-solving procedures, tolerance of ambiguity, and pragmatism verging on time inconsistency also undermine compliance and enforceability, albeit not invariably so. For example, winning environmental awards may be a face-boosting experience.³⁷⁸ All in all, this is again a behavioral pattern which does not readily lend itself to unequivocal generalizations.

³⁷² See *id.*; CHAN, *supra* note 175, at 170–71, 203–20; KENT, CHINA, THE UNITED NATIONS, AND HUMAN RIGHTS, *supra* note 226, at 240–44.

³⁷³ See generally Gorild Heggelund & Ellen Bruzelius Backer, *China and UN Environmental Policy: Institutional Growth, Learning, and Implementation*, 7 INT'L ENVT'L AGREEMENTS 415 (2007), available at <http://www.fni.no/doc&pdf/GMH-EBB-IEA-2007.PDF>.

³⁷⁴ See generally Hongyuan, *supra* note 370.

³⁷⁵ See, e.g., Kent, *Chinese Values and Human Rights*, *supra* note 226, at 87–90, 95–96.

³⁷⁶ *Id.*

³⁷⁷ See MA & ORTOLANO, *supra* note 13, at 82–89.

³⁷⁸ See *id.* at 77–95.

CONCLUSION

China confronts enormous environmental challenges and dilemmas, which have far-reaching regional and global ramifications. The acute predicament the country faces may be encapsulated in terms of the three “S’s” characterizing its burgeoning, fast moving, and constrained society: Size, Speed, and Scarcity.³⁷⁹ A vast population, an exceptionally high economic growth rate (coupled with increasing social fragmentation), and severe shortages of natural resources (including energy) combine to form a potentially unpalatable cocktail of intense local, nationwide, and cross-border ecological pressures.³⁸⁰ Given the magnitude of the problem, this qualifies as a truly global concern.³⁸¹

For China itself, the inherent conflicts and trade-offs raise the specter of extremely costly adjustments and compromises. It is not conceivable that the imperatives of economic development and environmental preservation may prove irreconcilable to some degree, or that pursuing the two goals simultaneously may turn out to be a zero-sum game rather than a positive-sum one.³⁸² For the international community, the massive spill-over effects, from a polity which struggles to balance its priorities and whose fragile control mechanisms belie its authoritarian status, constitute a grave matter.³⁸³

This confluence of factors accounts for the rising interest in environmental law and policy in China. The academic and professional literature has focused on both the domestic and international sides.³⁸⁴ The issue of compliance with external regime prescriptions has been accorded considerable attention, directly and indirectly.³⁸⁵ While the picture that has emerged is somewhat fuzzy, several useful inferences may be drawn. Among other things, there is scope for offering a number of potentially

³⁷⁹ See Peter Ho, *Trajectories for Greening in China: Theory and Practice*, 37 DEV. & CHANGE 3, 11 (2006).

³⁸⁰ See generally *id.*

³⁸¹ See *id.* at 23–24.

³⁸² See *id.* at 13–14.

³⁸³ See *id.* at 3–28.

³⁸⁴ See generally Hongyan He Oliver & Leonard Ortolano, *Implementing Cleaner Production Programmes in Changzhou and Nantong, Jiangsu Province*, 37 DEV. & CHANGE 99 (2006); Richard Welford, Peter Hills & Jacqueline Lam, *Environmental Reform, Technology Policy and Transboundary Pollution in Hong Kong*, 37 DEV. & CHANGE 145 (2006).

³⁸⁵ See MA & ORTOLANO, *supra* note 13, at 82–89; Chayes & Kim, *supra* note 340; *supra* notes 223–27.

constructive observations regarding research on adherence to international ecological rules and standards.

It should be noted at the outset that the work undertaken in this area is rather uneven. There is currently far greater emphasis in the academic community on international regime dimensions (e.g., formation, dynamics, and consequences) other than compliance and implementation. Regime consequences, particularly effectiveness, at present loom larger on the scholarly agenda than adherence to rules, standards, and related processes. The focus on effectiveness is understandable, given the importance of the subject, but well-designed regimes may not necessarily elicit compliance on a satisfactory scale.

In the China field, the number of studies addressing conformity to rules and standards thus remains relatively modest. This is especially valid in relation to the international side and less so with respect to the domestic one, to the extent that the two may be conceptually and practically separated. The notion of effectiveness is explored thoroughly, but compliance is not. Researchers embark on their studies from different points of departure, and this may partly explain the divergent pictures that they produce.

It has been authoritatively posited that international legal compliance consists of:

- (1) accession to treaties,³⁸⁶ the acceptance of the norms that this entails, and acceptance by the target state of the right of [the relevant external bodies] to monitor its conditions and of its obligation to respond; (2) procedural compliance with reporting and other requirements; and (3) substantive compliance with the requests of the [relevant external bodies], exhibited in international or domestic behavior. At the domestic front, the continuum proceeds into (4) *de jure* compliance, or the implementation of international norms into domestic legislative provisions; and (5) *de facto* compliance, or compliance at the level of domestic practice.³⁸⁷

Environmental scholars, however, do not operate consistently within this framework.

³⁸⁶ The author of this article believes that this needs to be extended to customary and soft law.

³⁸⁷ See KENT, CHINA, THE UNITED NATIONS, AND HUMAN RIGHTS, *supra* note 226, at 236.

Another element in the international ecological compliance equation not subject to systematic treatment is time. One research team has highlighted the difference between adherence to regime prescriptions during various phases of implementation: "In deciding on which regulations to analyze, we gave priority to programs that encouraged industrial facilities to be in continuing, not just initial, compliance with environmental requirements."³⁸⁸ According to its members, "[i]nitial compliance is a successful demonstration that a facility is capable of satisfying a particular regulation. In contrast, *continuing compliance* involves meeting a requirement over years of routine facility operations."³⁸⁹ Such distinctions are too rare, and conformity to rules and standards is, implicitly if not explicitly, considered a homogeneous concept.

International environmental compliance is rather narrowly conceived. Transboundary pollution in Hong Kong is a case in point. The management system for addressing the problem has not evolved beyond the embryonic stage.³⁹⁰ China and Hong Kong might have arguably adopted a more decisive posture in this respect.³⁹¹ The issue of the non-formation, or incomplete formation, of a regime may legitimately be viewed as inextricably linked with that of implementation and related processes. Yet, the analytical and practical connections are not brought to the foreground.

Definitional ambiguities are compounded by methodological ones. No established procedure has emerged for handling the relevant empirical material. Qualitative case studies are the most common tool for collecting information, but it is a tool that is employed liberally. Quantitative operationalization, on the other hand, is typically eschewed. Different methodological routes are followed, and divergent insights are generated. Depending on the conceptual structure and data extraction mode relied upon, China may be portrayed as a compliant nation or a non-compliant one. Here again, it may be convenient to juxtapose this pattern with the relative rigor currently exhibited in handling international environmental regime consequences and effectiveness.³⁹²

³⁸⁸ MA & ORTOLANO, *supra* note 13, at 173.

³⁸⁹ *Id.*

³⁹⁰ See, e.g., Peter Hills, Lei Zhang & Jianhua Liu, *Transboundary Pollution between Guangdong Province and Hong Kong: Threats to Water Quality in the Pearl River Estuary and Their Implications for Environmental Policy and Planning*, 41 J. ENV'TL PLAN. & MGMT. 375 *passim* (1998); Welford, Hills & Lam, *supra* note 384, at 156–57.

³⁹¹ See Hills, Zhang & Liu, *supra* note 389 (1998); Welford, Hills & Lam, *supra* note 384, at 156–57.

³⁹² See generally THE EFFECTIVENESS OF INTERNATIONAL ENVIRONMENTAL REGIMES:

Theoretically inspired studies on international environmental compliance seem to have reached a *cul-de-sac*. The unanswered questions posed by utilitarians/realists and institutionalists/cognitivists are not actively attended to. The gap between the two perspectives has not been bridged. Recent work on adherence to regime prescriptions in China is not deeply grounded in sophisticated traditional-style theories geared toward explaining actor or State behavior, which is not an exception to the norm. Yet, the complex realities encountered in this and similar contexts cannot be properly fathomed without being based on a robust theoretical foundation.³⁹³

Middle-range theories, which are less macroscopic in nature and more narrowly focused, are adversely affected by the pause/stalemate. It is thus not entirely clear what constitutes State capacity for purposes of environmental analysis in China and elsewhere. The corollary is that it cannot be unambiguously established whether this factor impedes or facilitates compliance in any circumstances, as well as whether it is manipulated/misrepresented by the political regime. Examinations of the issue in the Chinese context, while systematic, have yielded inconclusive results.³⁹⁴

A serious theoretical void waiting to be filled by middle range-style research strategies is the complex relationship between the domestic politico-economic dynamics and international environmental compliance, which is a subject that previously loomed large on the analytical agenda³⁹⁵ but has somehow been relegated to the periphery. China's

CAUSAL CONNECTIONS AND BEHAVIORAL MECHANISMS (Oran R. Young ed., 1999); ENVIRONMENTAL REGIME EFFECTIVENESS: CONFRONTING THEORY WITH EVIDENCE (Edward L. Miles et al. eds., 2002); REGIME CONSEQUENCES: METHODOLOGICAL CHALLENGES AND RESEARCH STRATEGIES (Arild Underdal & Oran R. Young eds., 2004); JORGEN WESSESTAD, DESIGNING EFFECTIVE ENVIRONMENTAL REGIMES (1999).

³⁹³ See KENT, BEYOND COMPLIANCE, *supra* note 368, at 6–30, 221–52; KENT, CHINA, THE UNITED NATIONS, AND HUMAN RIGHTS, *supra* note 226, at 4–7; Mushkat & Mushkat, *supra* note 227.

³⁹⁴ See Jonathan Schwartz, *The Impact of State Capacity on Enforcement of Environmental Policies: The Case of China*, 12 J. ENV'T. & DEV. 50 (2003); Tim Wright, *State Capacity in Contemporary China: "Closing the Pits and Reducing Coal Production,"* 16 J. CONTEMP. CHINA 173 (2007).

³⁹⁵ See, e.g., David Vogel & Timothy Kessler, *How Compliance Happens and Does Not Happen Domestically*, in ENGAGING COUNTRIES: STRENGTHENING COMPLIANCE WITH INTERNATIONAL ENVIRONMENTAL ACCORDS 19–37 (Edith Brown Weiss & Harold K. Jacobson eds., 1998); Peter M. Haas, *Choosing to Comply: Theorizing from International Relations and Comparative Politics*, in COMMITMENT AND COMPLIANCE: THE ROLE OF NON-BINDING NORMS IN THE INTERNATIONAL LEGAL SYSTEM 43–64 (Dinah Shelton ed., 2000).

intricate experience vividly illustrates that this inexplicable trend needs to be reversed as it appears to be the dominant force shaping the country's responses on the ecological front.

The marginalization of domestic influences raises further problematic theoretical implications. The State is inevitably portrayed as a unitary actor. This may be a correct reflection of realist premises but not institutional and cognitivist ones. Indeed, even utilitarianism, which has its roots in methodological individualism, does not conceive the State as a compact single entity. The high degree of policy fragmentation in China, which impinges on environmental compliance, highlights the limitations of an approach that treats the vital domestic structural-functional configuration as an inconsequential black box.

Numerous models have been proposed to capture the essence of the Chinese domestic policy-making process. The one given prominence here is the fragmented authoritarianism construct.³⁹⁶ Many other models have also been suggested.³⁹⁷ Most assume that the domestic politico-economic landscape is extremely fluid and heavily segmented; none would support the notion that the State operates in such a cohesive fashion that its innate heterogeneity may for all intents and purposes be overlooked.³⁹⁸

Such models have several dimensions. Among other things, they widely posit that policy optimization is the exception rather than the norm in organizational settings.³⁹⁹ Decision makers display bounded rationality, muddle through incrementally, rely on mixed-scanning forms of problem solving—switching between shallow and deep search strategies—and even drift more or less aimlessly in a manner analogous to the random accumulation of garbage.⁴⁰⁰ This is a phenomenon that institutionalists and cognitivists fully acknowledge, but it is scarcely incorporated into their work on international environmental compliance, which

³⁹⁶ See generally LIEBERTHAL & OKSENBURG, *supra* note 308 (establishing authoritarianism construct in China); Suh-Yong Chung, *Is the Mediterranean Regional Cooperation Model Applicable to Northeast Asia?*, 11 GEO. INT'L ENVTL. L. REV. 363 (1999) (discussing the role of fragmented authoritarianism in China's environmental policy making).

³⁹⁷ See generally HUANG JAINRONG, *THE APPLICABILITY OF POLICY-MAKING THEORIES IN POST-MAO CHINA* (1999).

³⁹⁸ See, e.g., *id.* at 17–103.

³⁹⁹ See *id.* at 104–142. The author states “[f]or such reasons, these scholars think it is hard to credit the optimal model as an actual correction of the weakness and a supplement of the strengths of other models.” *Id.* at 117.

⁴⁰⁰ *Id.*

is skewed toward nearly rational modes of cooperation, for example, virtually smooth learning and socialization.⁴⁰¹

China's ecological travails offer further theoretical lessons. Decision makers, wherever they are based, often make flawed choices in designing institutions and embracing policy instruments such as opting for administrative decentralization over the market exchange approach in implementing environmental strategies. Such choices are the product of complex organizational realities, as distinct from being the result of inadequate State capacity, and they merit proper analytical attention. Otherwise, the understanding of the determinants of compliance with international ecological regimes will remain incomplete.

⁴⁰¹ See *id.* at 31–34, 56–58. See generally KENT, BEYOND COMPLIANCE, *supra* note 368.