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ASHLEY J. TELLIS | SEAN MIRSKI

CRUX OF ASIA

CHINA, INDIA, AND THE EMERGING GLOBAL ORDER

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SUMMARY

The rise of China and India as major world powers promises to test the established global order in the coming decades. As the two powers grow, they are bound to change the current international system—with profound implications for themselves, the United States, and the world. And whether they agree on the changes to be made, especially when it comes to their relationship with the West, will influence the system's future character. A close examination of Chinese and Indian perspectives on the fundamentals of the emerging international order reveals that Sino-Indian differences on many issues of both bilateral and global significance are stark.

KEY POINTS

- China and India's sustained economic growth fuels their increasing geopolitical and military influence.

- Despite their developmental similarities, China and India's bilateral strategic rivalry means that they have competing priorities on most major global issues.

- Sino-Indian differences are considerable on issues relating to the nonproliferation system, Asian security, regional stability in Southern Asia, and security in the maritime commons, space, and cyberspace. The two rising powers broadly agree on matters relating to the international economic system, energy security, and the environment.

- Because of its ongoing shift to the Asia-Pacific and status as the only global super-power, the United States must manage a complex set of relationships with China and India, which are at times working at cross-purposes.

CHINESE AND INDIAN POSITIONS ON INTERNATIONAL ISSUES

GLOBAL ORDER: China and India tend to agree on the importance of state sovereignty and the need to reform global governance institutions to reflect the new balance of power. They also share a strong commitment to the open economic order that has allowed both powers to flourish in the global marketplace. But the two diverge on many details of the international system, such as the future viability of the Non-Proliferation Treaty and the role of state-owned enterprises in fostering globalization.

REGIONAL SECURITY: Both China and India want a stable Asia-Pacific that will allow them to sustain their economic prosperity, but they perceive threats very differently and have divergent priorities. Importantly, India seeks a resolute American presence in the region to hedge against possible Chinese excesses, while China sees the United States as significantly complicating its pursuit of its regional goals and worries about American containment attempts.

SECURITY IN THE GLOBAL COMMONS: Beijing and New Delhi rely heavily on open sea lines of communication, and as a result, they both support the current maritime security regime. However, their interpretations as to its provisions have occasionally diverged. In space, China enjoys significant advantages over India and has emphasized the military dimensions of its program, while New Delhi has only recently begun developing space-based military technology. Both countries are just beginning to wrestle with the difficult task of forming cybersecurity policies, but they have already acted to limit objectionable or illegal activities online. In striking the balance between online freedom and social stability, India has encountered a higher degree of opprobrium in the public sphere than its counterpart.

NONTRADITIONAL SECURITY: Chinese and Indian approaches to both energy and the environment broadly converge. Because India and China face a rising domestic demand for energy, they heavily rely on foreign suppliers of energy resources. This has prompted both governments to seek more efficient power sources and to secure their presence in overseas energy markets. On environmental policy, the two countries focus on primarily local and short-term concerns that must be balanced with the need for economic growth.

INTRODUCTION

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The concurrent rise of China and India represents a geopolitical event of historic proportions. Rarely has the global system witnessed the reemergence of two major powers simultaneously—states that possess large populations, have ancient and storied histories, abut each other spatially and politically, and dominate the geographic environs within which they are located. Their return to center stage after several centuries of imperial domination thus presages the reincarnation of an earlier era in Asian geopolitics when China and India were among the most important concentrations of political power in the international system since the fall of Rome. The parallel revival of these two nations also dramatically exemplifies Asia's resurgence in the global system. Although there has been a steady shift in the concentration of capabilities from West to East ever since the end of World War II, this transformation took a decisive turn when the smaller, early-industrializing nations of Asia—Japan, South Korea, Taiwan, and Singapore—were joined by the large, continental-sized states of China and India.

The recent renaissance of China and India is owed in large measure to their productive integration into the liberal economic order built and sustained by American hegemony in the postwar period. As a result of that integration, both of these giants have experienced dramatic levels of economic growth in recent decades. China's economic performance, for example, has been simply meteoric, exceeding even the impressive record set by the first generation of Asian tigers between 1960 and 1990. During the last thirty or so years, China has demonstrated average real growth in excess of 9 percent annually, with growth rates touching 13–14 percent in peak years.

As a result, China's per capita income rose by more than 6 percent every year from 1978 to 2003—much faster than that of any other Asian country, significantly better than the 1.8 percent per year in Western Europe and the United States, and four times as fast as the world average. This feat has made the Chinese economy—in purchasing-power-parity terms—the second largest in the world with a 2010 gross domestic product (GDP) of roughly $10 trillion. Many scholars believe that China will likely overtake the United States in GDP size at some point during the first half of this century.

India's economic performance has not yet matched China's in either intensity or longevity. New Delhi's economic reforms, which have produced India's recent spurt in growth, began only in the early 1990s, over a decade after China's. To date, these reforms have been neither comprehensive nor complete, and they have been hampered by the contestation inherent in India's democratic politics, the complexity of the Indian federal system, the lack of elite consensus on critical policy issues, and the persistence of important rent-seeking entities within the national polity.

Yet despite these disadvantages, the Indian economy has grown at a rate of about 7.5 percent during the first decade of this century. The country thus eclipsed its own historic underperformance and enabled a doubling of per capita income about every decade, placing the Indian economy, when measured by purchasing-power-parity methods, in fourth place globally with a 2010 GDP of approximately $4 trillion. More interestingly, India's growth—unlike China's, which relies extensively on foreign capital and export markets—has derived largely from internal sources. Accordingly, many analysts have concluded that continuing economic reforms will enable the country not only to reach its targeted objective of sustained double-digit growth but also to catch up with China in coming decades as Beijing's own growth slows because of its incipient demographic transitions.

Beijing's and New Delhi's divergent behaviors are shaped by the unique histories governing their formation as modern states, the stark contrasts in their respective political regimes, and their ongoing territorial disputes and geopolitical rivalries.

Even if these exact expectations are not met, China and India are likely to sustain their relatively high levels of GDP growth for some time to come. This continual accretion of economic power will position them among the top three economies internationally by the year 2030, if not earlier, thus confirming their status as global giants. Propelled by the rapid economic growth achieved thus far, China and India are already extending their political influence as well as strengthening their military capabilities and reach. China is quickly closing in on its goal of becoming a major global power, if it is not one already, and India is likely to achieve global-power status in the next two decades. Chinese and Indian contributions to the expansion of the international economic system are generally welcomed, with growth in both nations promising to function as the motor of the international economy for several decades to

come. The two countries also share a common interest in ensuring that the international environment is peaceful to guarantee their continued economic consolidation and domestic political stability.

But if the history of previous rising powers is any indication, as China and India continue to grow they will want to progressively reshape the international system to advance their own interests—interests that may differ from those of the United States, the established hegemon that sustains the current global order. This does not imply, however, that Beijing and New Delhi invariably share common objectives in opposition to Washington. To be sure, the two countries are united by certain acknowledged aims: recovering the preeminence they once enjoyed as international entities of consequence; establishing a multipolar world with themselves as constituent poles; avoiding the costs of contributing to global public goods on the grounds that their vast developmental challenges are not yet overcome; and protecting their hard-won sovereignty in the face of new principles justifying foreign intervention in the internal affairs of states.

Despite these convergent objectives, China and India are also divided by deep differences in the conduct of their political affairs. Beijing's and New Delhi's divergent behaviors are shaped by the unique histories governing their formation as modern states, the stark contrasts in their respective political regimes, and their ongoing territorial disputes and geopolitical rivalries, which are exacerbated by their growing prominence in international politics. As one analysis concluded, "The relation[ship] between Asia's two great powers can best be characterized as one of global cooperation on transnational issues especially vis-à-vis the 'West,' geostrategic rivalry at the regional level in the form of growing commercial exchange and in some cases bilateral competition."[1] This statement captures, in many ways, the conventional wisdom about the dichotomy in Sino-Indian ties: a broad convergence on transnational issues complemented by a deep bilateral rivalry that persists despite the two countries' mutual and growing economic interdependence.

Whether the agreement on issues of global order, especially vis-à-vis the West, is real or whether it merely obscures important differences between the two rising powers is a critical question because it bears on the character and the extent of change that might be desired of the international system as it evolves. Accordingly, there is a pressing need to understand how these two emerging powers conceive of various issues relating to the global order. Such an understanding would reveal the extent of their comfort with the existing system while simultaneously providing clues about how they might seek to reshape it if they acquire the ability to do so in the future.

This volume is an attempt to understand how China and India think about various dimensions of the emerging global order. It brings together a series of paired papers by distinguished Chinese and Indian scholars who address a common set of questions (listed at the beginning of each chapter) relating to four broad areas of concern: the evolving global order, the challenges of regional security, key problems of the global commons, and emerging nontraditional security concerns.

The purpose of each paper is to explicate, rather than defend, the dominant national view on the subject in question. Although the personal views of the authors necessarily intrude in such an exercise, each paper consciously seeks to expound the mainstream opinion of Chinese or Indian policymakers and elites. The aim is to better inform an American audience about the extent of convergence and divergence in Chinese and Indian positions on various global issues. No summary can fully capture the detail and nuance of the two countries' stances on these complex matters, but this introduction attempts to flag the elements of convergence and divergence in each pair of essays for policymakers, especially in the United States. Washington undoubtedly confronts serious pressure to formulate coherent policies that satisfy its short-term goals vis-à-vis both China and India while simultaneously responding to the long-term challenges represented by those states' rise in Asia and beyond. If this analysis improves the U.S. understanding of where these two rising powers stand on various issues that matter to American interests, it will have served its purpose.

PART I: GLOBAL ORDER

CHANGING GLOBAL ORDER: WANG AND MOHAN

The first paired set of essays on the character of the international system, authored by Wang Jisi and C. Raja Mohan, addresses the fundamental questions of whether China and India view the extant global order as serving their critical interests, whether they believe that the international system is sufficiently respectful of their national sovereignty, and whether existing international institutions adequately reflect their growing power.

In answering these questions, Wang and Mohan agree that China's and India's views on the current global order have evolved along a similar trajectory. In the aftermath of the Second World War, both states—driven by strong anticolonialist impulses—opposed great-power politics and what was viewed as "superpower hegemony," calling instead for a multipolar world. Since the end of the Cold War, however, both nations have become increasingly integrated into the U.S.-led international order. They recognize that this order has created a peaceful external environment within which they can safely develop, and they see globalization as a positive and, to some extent, inevitable trend (although Mohan identifies some Indian concerns on this point). As a result, China and India have abandoned calls for a complete overhaul of the global order and instead have come to support "merely" its revision.

Despite their engagement with the extant world order, both China and India remain concerned about this order's ability to protect their state sovereignty. As both states are still in the midst of major state-building projects, sovereignty is a key priority. Beijing and New Delhi generally oppose Western-led interventions in the internal affairs of the developing world. But, more interestingly, Wang and Mohan also emphasize that China and India iden-

tify another potential threat: the increasing empowerment of individuals and civil society at the expense of the state. Both nations are suspicious of nongovernmental organizations in their countries, in part because of their perceived links with foreign states, and they also harbor extensive reservations about international norms that seek to bind the hands of national leaders in domestic matters. Moreover, they watch the rise of new technologies—such as innovations in cyberspace and social media—with some distrust.

Wang and Mohan argue that both China and India yearn for a greater role in the global order and that they currently feel underrepresented in key international bodies. Wang flags China's lack of representation in international economic institutions, while Mohan highlights the fact that India is not a permanent member of the United Nations Security Council (UNSC). Both scholars also mention the importance of bolstering their countries' domestic capacities to produce citizens that can effectively represent them on the world stage, indicating their perceived lack of suitable capability to meet the burdens of greater global leadership. In other words, the authors suggest that China and India are not yet global leaders due to a lack of both opportunity and capability.

Neither China nor India opposes international legal institutions in principle, but in practice both nations express strong reservations over the fact that institutions like the International Criminal Court can impinge on their sovereignty. In India's case, the opposition is compounded by New Delhi's perception that these organizations often discriminate against states that are not permanent members of the UNSC.

Wang and Mohan also agree that China and India share many common interests on global matters such as regime change and climate change. Mohan identifies this agreement as ultimately rooted in a mutual suspicion of "external transnational institutions"—incidentally, a suspicion that the United States often shares. More importantly, however, both authors insist that China's and India's attitudes toward the future global order will not be affected by international institutions and norms as much as they will be decided by domestic and national political considerations. If they are right, then China's and India's future relations with the global order will be determined more from within than from without, with sobering implications for American interests.

These elements of convergence speak to how China's and India's interests are often shaped by their relatively comparable levels of economic and political development. But the divergence in their positions is equally significant. While both countries are concerned, for example, about constraints on their sovereignty, the degree of concern differs greatly.

Wang observes that China holds to the principle of state sovereignty absolutely, writing that "the most salient tenet in China's foreign relations has long been the safeguarding of [its] sovereignty and territorial integrity." China sees many threats to this sovereignty as arising from the West, particularly the United States, and it has firmly opposed them at every step.

India, meanwhile, is becoming less concerned by threats posed by other states. According to Mohan, New Delhi does not object to Western intervention on the absoluteness of

state sovereignty since "India recognizes the importance of states shedding some sovereignty to promote international cooperation," an evolving position shaped both by Indian democracy and its liberal political inheritance. Rather, India opposes the "cavalier" humanitarian interventions of the West mainly because it doubts their sincerity and their efficacy. At times India will place humanitarian concerns above state sovereignty—but it will do so on the basis of pragmatic rather than ideological concerns.

Similarly, while China and India are both suspicious of the empowerment of individuals and society relative to the state, their responses to that development are markedly different. China has made it clear that it sees, in Wang's words, this trend as "politically incorrect and unacceptable" and believes that sovereign rights will always be more valued than individual rights. Accordingly, Beijing has positioned itself against the emergence of a robust civil society by committing to the reinforcement of state power, including through heavy regulation and control. Moreover, China's attitude has affected its perceptions of other states, and Wang notes that China does not distinguish between state actors and nonstate actors in the conduct of foreign relations. Conversely, India, which has struggled with the empowerment of civil society, has begun adapting to this reality. New Delhi has in fact embarked on state-supported efforts at empowering its citizenry through a variety of instruments ranging from acknowledging citizens' legal right to seek information about state actions to expanding the scope of public interest litigation to creating a gigantic rights-based welfare state.

Furthermore, the fact that both China and India desire greater representation in international institutions does not mean that they concur with each other's aspirations. In particular, China and India have clashed over the expansion of the UNSC. India has prioritized permanent UNSC representation, arguing, in Mohan's words, that "the current structure … is outmoded and ineffective." In contrast, China insists that any expansion include more developing countries, preserve the geographical balance, and represent different cultures and civilizations. Although Indian representation would meet these criteria in theory, China opposes India's inclusion in the UNSC. As Wang notes, China "is essentially content" with the UNSC's current composition.

For all their convergence at the international level, therefore, the geopolitical rivalry between China and India often impedes practical cooperation between the two states. Both Wang and Mohan acknowledge the mutual distrust between the two countries. Wang sees China as fearful of American containment and thus wary of the United States' developing relationship with India. However, Mohan argues that India is not necessarily moving closer to the United States but that China is pushing Washington and New Delhi closer together by virtue of its adoption of potentially interventionist policies that threaten India's interests in its own neighborhood.

On balance, Sino-Indian divergence on many matters of global order may be deeper than the common rhetoric suggests. While China and India agree in the abstract on concepts such as state sovereignty and humanitarian intervention, they are divided by their perceptions of the threats facing the international system as well as by their concerns about

their own security. China deeply fears American intrusions on its sovereignty and is acutely conscious of the leverage India possesses regarding Tibet's future as a Chinese province. Although India is still hesitant to confront China outright or commit to a strong affiliation with the United States, Mohan notes that New Delhi and Washington are growing closer on issues such as democracy and humanitarian intervention. Wang maintains that China remains obdurately opposed to these issues.

CONSIDERATIONS FOR U.S. POLICY

- How can the United States integrate China, India, and other emerging powers into various international institutions without diluting their efficiency, threatening U.S. power, or transforming these bodies into further avenues for increased Sino-Indian or Sino-U.S. rivalry?

- How can the United States lead the reform of the UNSC and other international bodies concerned with global rulemaking if there continue to be significant gaps in preferences even between democratic partners such as the United States and India?

- How can the United States ameliorate China's and India's concerns about threats to sovereignty without compromising on the fundamental objectives of the liberal international order centered on the respect for persons?

INTERNATIONAL ECONOMIC SYSTEM: ZHANG AND KUMAR/KHANNA

The second pair of essays in the section on the evolving global order, authored by Zhang Yunling and Rajiv Kumar/Anshuman Khanna, addresses respectively, China's and India's perceptions of the liberal international economic order. These essays examine how the order serves the two countries' interests, how the nations reconcile their still-significant state controls on economic policy with integration into an open global market, how they view the dollar as an international reserve currency, how the liberal trading order ought to be expanded, and finally how the geopolitical challenges arising from the differential rates of growth in an open international economic system should be managed.

Given China's and India's recent economic successes, it is not surprising that both Zhang's and Kumar/Khanna's contributions stress the two countries' complete support for an open economic order now and into the future. Zhang notes that "China will surely continue to support an open, transparent, and rule-based global trade system." Kumar/Khanna echo these sentiments, arguing that "it can be unequivocally said that India is and will remain committed to a free-market-based and liberal global economic order."

Zhang and Kumar/Khanna emphasize that China and India's shared commitment to the global economic system is fundamentally rooted in the benefits that order has bestowed on their states. They agree that China and India have not only grown as a result of their integra-

tion into the global economic system but also used that integration as a force for beneficial domestic reforms. Both countries intend to continue their external integration and internal reform even as they simultaneously undergo consequential economic, social, and political transitions.

Despite the benefits offered by the liberal trading order, however, Zhang and Kumar/Khanna affirm that their countries are dissatisfied by the existing balance of power in many global institutions, especially those pertaining to international finance. China and India are well aware of their growing economic heft within the international trading system, and they see the rise of the G20 and the BRICS (Brazil, Russia, India, China, and South Africa) as reflecting a larger shift in economic power from the developed to the developing world. Accordingly, Beijing and New Delhi believe that developing nations are entitled to greater representation and rights within international finance institutions—especially the International Monetary Fund (IMF) and the World Bank—and that the fundamental structure of these organizations must be altered. China and India also agree that these institutions are becoming increasingly important in the current global climate. Both sets of authors propose strengthening the IMF, with Zhang arguing that the institution should play a larger role in managing global monetary policy and financial markets and Kumar/Khanna believing that the IMF's mandate should be extended to include global macroeconomic balances. Additionally, both identify Chinese and Indian fears of rising protectionism among developed countries, and they emphasize that the West should not fence off its economies from globalization, given the importance of a universal free market.

> **While China stresses reforming state-owned enterprises, India believes the problem is structural and thus advises reforming the system itself.**

Despite both essays' conspicuous endorsement of an open international economic order, the authors acknowledge that both China and India maintain substantial state controls in their domestic economic systems. These controls are defended as necessary given each country's relative stage of development. Both Zhang and Kumar/Khanna note that state controls are the lowest they have ever been in the history of their respective countries and that they will continue to shrink as both economies move toward a more market-based system.

Additionally, China's and India's currencies are not fully convertible. Both countries argue that the convertibility of their currency is increasing in pace with other economic reforms, but Kumar/Khanna also caution that premature moves toward full convertibility could destabilize exchange markets and cause India's currency value to fluctuate wildly. In this context, Zhang and Kumar/Khanna agree that the U.S. dollar will remain the global reserve currency for the foreseeable future, largely because no other currency can successfully replace it at this juncture.

Both papers in this pair declare that China and India seek a greater leadership role in the maintenance of the international economic order, a position that derives from their growing

economic power. However, both countries acknowledge that they will be unable to take a primary leadership role any time soon because of their still-significant economic, political, and social constraints. Both sets of authors point to domestic constraints as a key obstacle to China and India replacing the United States, an intriguing counterpoint to most international discussions that presume Beijing and New Delhi will step into such a role simply as a function of their increased relative economic power. Kumar/Khanna implicitly contest this expectation, writing that "internal and domestic considerations dominate any global interaction." Zhang and Kumar/Khanna also doubt that either country will experience a future tradeoff between greater integration into the open economic system and continued rapid national growth, an eventuality that many predict. Kumar/Khanna believe "this stage is still a long way off."

Given the expectation that China and India will continue to benefit from the system, it is not surprising that both countries want to conclude the Doha Round of World Trade Organization negotiations expeditiously and in general strongly prioritize the expansion of the global economic order. Reflecting India's aspirations, Kumar/Khanna stress the importance of working toward free trade in agricultural goods and the free temporary movement of workers across national borders. Interestingly, free trade in agricultural goods is not yet reflected in the government of India's negotiating preferences in trade policy.

The two sets of authors affirm that in the absence of global progress, China and India will continue to support bilateral and regional arrangements, including free trade agreements (FTAs), that advance economic goals in a manner that complements global efforts. Both countries prioritize global agreements over regional ones, however, and are committed to not letting the latter become obstacles to the former.

On the critical question of the geopolitical challenges posed by the differential rates of growth arising from an open international order—the core challenge for the United States today—Kumar/Khanna argue that India does not consider differential returns a threat because they are a direct product of integration into the global economy. For India, then, the lesson is clear: integration is the best option both because it limits the misuse of a state's power and because the alternative to open trade puts India in an even weaker position. This reflects the standard liberal defense of free trade. Zhang's paper, however, circumvents this question, perhaps in part because China, profiting more than most from the current economic order, would prefer not to draw attention to the issue of geopolitical gains for fear that it might lead to both greater protectionist pressures in the West and more concerted efforts to balance rising Chinese power.

This element of divergence in the two papers is reflective of other important disagreements as well. For example, while China and India agree on the importance of increasing developing-country representation in the governance structures of the World Bank, their wishes for the orientation of the World Bank's future mandate seem to differ subtly. Zhang notes that China wants the World Bank to focus more on clean government and transparency as well as on sustainable development. Kumar/Khanna do not necessarily disagree, but

they argue that India is torn between orienting the World Bank more toward development finance or more toward a focus on only the least-developed economies (thus excluding China and India).

A more serious divergence materializes over the issue of how an open economic order abroad is to be reconciled with continuing state controls at home. The two sets of authors disagree over the role of state-owned enterprises and how the international economic system should respond to their rising influence. Zhang argues that there is a need "to continue to reform state-owned enterprises and [to] create a fair competitive environment for the non-state sector," tacitly acknowledging that state-owned enterprises will continue to play an important role in China's economy. In short, China maintains that state-owned enterprises can be reformed in a way that harmonizes their existence with the current international economic system. Kumar/Khanna, by contrast, argue that "the present multilateral liberal trading order was based on the premise that the major actors will be private enterprises. With the emergence of state-owned capitalist enterprises, this premise is no longer valid." Additionally, India also evinces concern over governments' acquisitions of intellectual property. Because India too continues to maintain state-owned enterprises (albeit without international operations on a scale comparable to China), Kumar/Khanna's position represents an important dissenting view in regard to their own government's policies. The differences are clear: while China stresses reforming state-owned enterprises, India believes the problem is structural and thus advises reforming the system itself.

Despite agreeing that the U.S. dollar is likely to remain the global reserve currency in the near future, Zhang and Kumar/Khanna sharply disagree over the merits of dollar dominance. Zhang argues that the world should either create a new international reserve currency or move toward a multicurrency system. In the short term, though, China hopes that the United States will follow responsible monetary and macroeconomic policies that keep the dollar stable. Kumar/Khanna, on the other hand, see no immediate need to change the existing dollar-based system, especially since that could prove destabilizing. This position reflects Indian fears of instability arising from any transition to a multicurrency system and, even worse, of the replacement of the dollar by the Chinese yuan, should the latter become fully convertible in the future.

In a similar vein, while both China and India support expanding the global trading system, they disagree on whether bilateral and regional FTAs are an obstacle. Zhang argues that China considers regional arrangements to be incredibly important, and his essay clearly stresses China's continued interest in expanding them. But Kumar/Khanna fear that bilateral and regional trade agreements could undermine the multilateral trading order. As a result, they call for the World Trade Organization to play a greater role in monitoring these regional FTAs and ensuring they are not diverting trade. This position again reflects the traditional Indian ambivalence about subglobal FTAs, even if it is not fully incorporated in current Indian governmental policies.

CONSIDERATIONS FOR U.S. POLICY

- How can the United States lead the reform of international financial institutions to accommodate rising powers when these nations' substantive commitment to the liberal order still remains somewhat uncertain?

- How can Washington pursue the enlargement of the global trading order in the face of new entrants, such as state-owned enterprises, that could be little more than state proxies in a field otherwise populated by private-market players?

- How can the United States protect the status of the U.S. dollar as the international reserve currency (with its accompanying "exorbitant privilege") in the face of significant global imbalances?

- How can Washington sustain its commitment to expanding the world trading system if the proliferation of bilateral and regional FTAs continually accentuates trade diversion?

- How can the United States continue to sustain the open trading order if its net consequence is breeding new global rivals to American primacy?

GLOBAL NONPROLIFERATION SYSTEM: LI AND SREENIVASAN

The last pair of papers in the section on the evolving global order focuses on the nuclear nonproliferation system. Authored by Li Bin and T. P. Sreenivasan, the papers address how each country views the global nonproliferation system and its success thus far, what changes should be made in the system's constitution to ensure its continued viability, how the outlier states ought to be treated, and how the system should respond to the new nuclear threats that have emerged on the horizon.

A comparison of the two contributions is challenging because of the asymmetry in how many questions of importance are treated. Whereas Indian policymakers have expressed clear opinions over the years about different aspects of the global nonproliferation system, their Chinese counterparts have often been silent, obscure, or ambiguous. Consequently, the following comparison will flag issues of convergence and divergence while indicating wherever appropriate when an authoritative Chinese position is unavailable.

At the highest level of abstraction, both China and India concede that the Nuclear Non-Proliferation Treaty (NPT) regime has advanced global nonproliferation goals, at least insofar as it has served as a brake on the runaway proliferation of nuclear weapons that might have occurred in the regime's absence. This judgment is obviously a contingent one. The choices of many states, the role of bipolarity in tamping down regional rivalries, the role of the United States as a security provider, and the high costs of nuclear-weapons programs also presumably all contributed to reducing the incentives for proliferation.

Regardless, Sreenivasan argues that although India continues to have significant disagreements with the NPT system, New Delhi is "much more committed to the holistic purposes of the NPT than some of the signatories" and has unilaterally implemented many significant measures to advance the NPT's nonproliferation and disarmament goals. This claim is anchored in India's unsullied record in regard to outward proliferation, which contrasts sharply with the records of both Pakistan and China. Presumably recognizing this history, Li's paper proffers a lesser claim: China's support of the nonproliferation system has strengthened since it signed the NPT in 1992, some twenty-two years after the treaty came into force.

In this context, Li and Sreenivasan note that their countries have generally been unsympathetic to contemporary challengers to the NPT system—but the devil is in the details. Both China and India, for example, have strongly condemned North Korea's nuclear program. But given Chinese dilemmas and interests regarding North Korea, Beijing has not prioritized compelling Pyongyang to give up its nuclear program. Lacking similar equities and given New Delhi's chagrin at North Korea's nuclear and missile cooperation with Pakistan, India's condemnation of the North Korean program has been more unequivocal.

There is less disagreement with respect to Iran. Both China and India find themselves in a dilemma: they do not want to challenge Tehran's right to peaceful nuclear technology, but they are concerned about its nuclear program.

Despite the differences between the North Korean and Iranian cases, both authors highlight their countries' insistence on engaging with states challenging the NPT system. In part, this is because Beijing and New Delhi recognize that North Korea's and Iran's decisions are driven by the larger political and security contexts in their respective regions. Accordingly, both China and India oppose the threat or use of force to coerce these nations and wish for an amicable resolution to the dispute through "the improvement of overall international relations and appropriate settlement of regional security problems," as Li characterizes it. Both China and India also maintain that they scrupulously follow international obligations over national interests when interacting with either North Korea or Iran. Li and Sreenivasan insist that their countries are seeking less punitive international strategies not because they are self-serving but because they are more effective.

In the essays, China's and India's assessments of the NPT system's future range from ambiguous to pessimistic. Li notes that China believes "the global nuclear nonproliferation system should deal with nuclear nonproliferation and [the] peaceful use of nuclear energy in a balanced way," but that nuclear-weapons proliferation should be stopped even if it occurs "in the name of nuclear energy." This strong position, however, is in tension with his assessment that Chinese scientists also fear excessively precluding access to peaceful technology, arguing that nonproliferation efforts should be focused on other portions of the proliferation chain.

Sreenivasan presents a much more pessimistic view. He argues that the discriminatory and inflexible nature of the NPT regime, when combined with its commitment to permanence, makes it ill-suited to be either durable or effective over the long run. In particular, he

contends (somewhat speculatively) that whether nuclear-weapon states honor their commitment to disarmament considerably influences whether non-nuclear-weapon states will be tempted to use nuclear technology that the NPT allows for peaceful purposes in order to develop nuclear weapons. Regardless, Sreenivasan notes that there has only been one country that has left the NPT—North Korea—and that it did not acquire access to nuclear technology through the NPT regime itself. While Sreenivasan is somewhat optimistic about the possibility of eventually eliminating nuclear weapons altogether, India does not seem to think that the NPT will aid this process so much as hinder it.

Li and Sreenivasan agree about the role of the international community in curbing proliferation but again only at the highest level of generality. Both contend that states should extensively cooperate, share best practices and intelligence, and strengthen national export-control systems to combat nuclear proliferation. But both are unsure of the legality of violating a state's sovereignty to secure nuclear materials or substantive compliance with existing obligations.

The superficial similarities in Chinese and Indian positions on proliferation mask deeper disagreements. China and India diverge sharply in their evaluation of the NPT system's success. Despite China's initial opposition to the NPT regime, Li argues that China now sees the system as a success and views the treaty as "the cornerstone of the global nuclear nonproliferation system." This change of heart is linked closely to the treaty's recognition of China as a legitimate nuclear-weapon state.

In contrast, the NPT treats India as a de jure outlier. Consequently, Sreenivasan emphasizes India's continuing complaints about the flaws in the NPT system, claiming that the regime is under "severe stress" and in dire need of "renewal and rejuvenation." He contends that while the system has positively affected global nonproliferation efforts to some extent, its contribution has been more limited than its admirers believe. While the Indian government would certainly endorse Sreenivasan's assessment about the need for renewal, it is likely to have a more positive view of the value of the NPT than many critical Indian opinions might suggest because New Delhi values the treaty's role in preventing further proliferation in the international system.

Chinese and Indian grievances about the NPT continue to be shaped by how the treaty treats the two countries legally. Although Chinese liberals still evince distaste for the regime's discriminatory aspects—a position once held by China as a whole—the country has since reconciled itself to the NPT regime and has consistently upheld it at least at a declaratory level since 1992. Li notes that at the 1995 NPT Review Conference China "gave higher priority to its cooperation with other nuclear-weapon states than with other developing countries." India, however, continues to harbor complaints about the treaty, though their public articulation has muted considerably in recent years, particularly after the successful conclusion of the U.S.-India civilian nuclear cooperation agreement.

Most importantly, New Delhi still believes, at least at a conceptual level, that the NPT regime remains fundamentally discriminatory, dividing states with nuclear weapons from

those without. As Sreenivasan notes, India originally sought an NPT that would be a grand bargain: nonproliferation in exchange for disarmament, with the eventual goal of the total elimination of nuclear weapons. However, the NPT ended up holding nonproliferation as an end in and of itself. To some extent, even China agrees with this position since it maintains, as Li puts it, that "all nuclear-weapon states should … publicly commit to not seek permanent possession of nuclear weapons." But, in practice, China has passed the burden of disarmament on to the bigger nuclear-weapon states and will join the process only "when appropriate conditions are met"—or, in other words, when the larger U.S. and Russian nuclear arsenals are reduced to levels approaching parity with China's.

Compounding India's objections is the permanence of the regime established during the 1995 Review Conference. India believes that the NPT should be a dynamic, flexible document that can adjust to developing situations. Instead, Sreenivasan argues that India believes the treaty is "froze[n] … in time and space." Sreenivasan states that New Delhi would only join the NPT if it were amended to allow India to join as a nuclear-weapon state. Finally, India opposes the general exclusionary approach of the NPT system that, in its view, seeks to ostracize nonsignatories. India believes that the regime needs to be more inclusive, with stronger compliance measures so that all commitments (including disarmament) are actively pursued. As part of this, India believes that the membership of groups such as the Nuclear Suppliers Group, a multinational body that regulates the import and export of materials used to make nuclear weapons, and the Missile Technology Control Regime, which seeks to prevent the proliferation of missile and drone technology, should be open to all interested countries, not just NPT signatories, in order to increase their efficacy.

China and India also diverge on how to manage the outlier states that never signed the NPT. Although China has never explicitly addressed this question, it appears to oppose the partial integration of some states as evinced by its opposition to the U.S.-India civilian nuclear cooperation agreement. Li argues that both Chinese liberals and realists opposed this agreement for different reasons: liberals because they felt that the deal subverted the universality of the NPT regime and realists because they saw the deal as a U.S.-Indian attempt to counterbalance China's growing strength. In contrast, Sreenivasan argues that the deal was made possible by India's "impeccable" nonproliferation record, and as a result, the deal proved to be a successful method of active partnership between India and members of the NPT regime, strengthening the system. Consequently, it remains a good example of how "India has become a partner in the nonproliferation regime, rather than a target of it."

Despite this clear disagreement, there is a small element of convergence as well. China and India agree that a similar deal should not be extended to other NPT outliers, but their reasons differ. China seems to believe that the U.S.-India deal was flawed in principle, whereas India believes that the deal was uniquely tailored to India's circumstances and thus cannot be successfully used in alternate situations.

Where the outliers are concerned, therefore, China appears to stand fast by the canonical objectives of older U.S. policy—namely, to integrate them eventually into the regime as

non-nuclear-weapon states. Thus, for example, China has repeatedly endorsed a South Asian nuclear-weapons-free zone (presumably because it would imply India's nuclear disarmament) and strongly supports a Middle Eastern nuclear-weapons-free zone (which would entail Israel's nuclear disarmament). In contrast, Sreenivasan writes that India believes the NPT regime should treat outliers as partners in nonproliferation efforts by considering the threats they face and engaging with them.

A number of questions will continue to bedevil U.S. policy in the nonproliferation arena for years to come. Their solutions will only be found, not by engaging the declaratory policies of the emerging powers, but by patient diplomacy that speaks to the real interests of these emerging countries in any given situation.

CONSIDERATIONS FOR U.S. POLICY

- How can the United States strengthen the NPT system through possible incorporation of outliers in the face of the significant differences that exist on this score between Washington and Beijing?

- How can the United States secure Chinese and Indian cooperation in addressing the nuclear challenges posed by North Korea and Iran when Beijing and New Delhi have different priorities relative to Washington on these issues?

- How can the United States balance the respect for sovereignty against the threats posed by nuclear-weapons proliferation, especially when major rising powers such as China and India remain reluctant to concede the legitimacy of coercive approaches even when they believe nuclear proliferation poses a grave threat?

PART II: REGIONAL SECURITY

ASIAN SECURITY: XIA AND KONDAPALLI

The second section of this volume begins with a paired assessment of the key challenges confronting Asian security writ large. The papers authored by Xia Liping and Srikanth Kondapalli examine Chinese and Indian perceptions of the most pressing security concerns in Asia, the strategies adopted by each country for dealing with these issues, the appropriate mix of military and nonmilitary solutions in this context, and their views of the U.S. role in upholding stability in Asia.

Unsurprisingly, in judging which security issues are most pressing to China and India, Xia and Kondapalli flag three very divergent concerns that underscore the differences in geography, regional context, and the specific threats facing both states. Nevertheless, the challenges they point to share some common threads. From Beijing's perspective, China's

most important security concerns are the confrontation on the Korean Peninsula, the South China Sea dispute, and the Iranian nuclear program. Kondapalli, in contrast, emphasizes unresolved sovereignty and territorial disputes, terrorism, and the challenge of maintaining high economic growth as critical for India. While Xia's concerns are shaped by geography and span many different subjects—as he notes, "all three issues have involved outside major powers and have posed both traditional and nontraditional challenges to the region and the world"—Kondapalli's concerns are functional and span many different countries (but, in practice, tend to revolve around only a handful of states).

> **Both China and India are modernizing their militaries as a defensive hedge against external aggression—but with a marked difference in emphasis.**

Xia's assessment also focuses exclusively on the traditional security challenges posed by other states, whereas Kondapalli's concerns encompass substate threats (terrorism) as well as nontraditional security challenges (economic development). Similarly, Kondapalli takes into account security concerns spawned by domestic issues, whereas Xia does not. Perhaps most tellingly, Xia argues that the three challenges he identifies have been severely complicated by the actions of the United States. Kondapalli, in turn, points to both China and Pakistan as key sources of insecurity for India when it comes to sovereignty and terrorism.

The common thread in both papers, therefore, is sovereignty: Kondapalli highlights this issue as a critical matter for India, and all three of Xia's concerns involve questions of sovereignty. This focus serves as a stark reminder of how China and India, despite being rising powers, are still young states struggling to protect their interests in a large, competitive international system.

A subsidiary element of commonality is economic development. Kondapalli emphasizes this concern clearly, a testament to India's principal preoccupation today. Xia notes that China "will focus its attention … on building a well-off society" in the first two decades of the twenty-first century, for which it "needs a long-term peaceful and stable international environment."

Where the national security strategies for dealing with these problems are concerned, Xia and Kondapalli display important convergence: both stress that their respective countries have prioritized economic growth even though China and India continue to pursue other long-standing objectives, such as national reunification and strategic autonomy, respectively. Each of these countries thus seems caught between the competing imperatives of security and economic growth. Kondapalli describes India's strategy as one that satisfies the country's "sovereignty and territorial integrity needs … by gradually enhancing its conventional and strategic deterrence posture, while at the same time maintaining uninterrupted economic growth figures through mutually beneficial diplomatic, economic, and security arrangements," a characterization which could aptly describe China's strategy as well.

In the pursuit of their strategies, China and India have adopted very similar means. Both stress the importance of international cooperation, collective security measures and multilateral security dialogues, diplomatic outreach, negotiation as the primary method of dispute resolution, and expanded economic ties. Additionally, both generally eschew unilateral or coalitional attempts to address Asia's security challenges. Instead, China and India stress the importance of multilateral and regional fora while remaining cognizant that some security challenges are best dealt with at the bilateral level. Both countries also envision a proactive and positive role for themselves in resolving the region's disputes and even guaranteeing their neighbors' security.

In this context, Xia and Kondapalli maintain that both China and India have primarily focused on nonmilitary instruments to advance Asian security. Both countries see force as a last resort and argue that its use should be limited. Nevertheless, both China and India are modernizing their militaries as a defensive hedge against external aggression—but with a marked difference in emphasis.

Xia notes that China is upgrading its military in part "to deter military interference by other major powers," presumably the United States. In contrast, Kondapalli seems to foresee India's military as being involved mostly in smaller conflicts in its neighborhood. Additionally, with regard to aiding other states through the use of military tools—a contingency on which Xia's paper is silent—Kondapalli strongly stresses the importance of legitimacy as conferred either by the United Nations or by the country requesting Indian forces. Thus, although Xia and Kondapalli do not disagree per se, Xia sees China as developing its military based on unilateral defense imperatives, whereas Kondapalli stresses the importance of providing nontraditional assistance to other states as an additional task for India's military forces.

The two nations are thus slowly departing from their strict insularity of yesteryear and instead exploring how their military capabilities might serve emerging interests, including through the use of military instruments for nontraditional security operations (such as humanitarian relief and peacekeeping) and for collective-security measures. As they contemplate such departures, both countries agree that confidence-building measures have a crucial role in preventing conflict, which plays into their shared desire to avoid the use of force.

Most interestingly, however, Xia and Kondapalli argue that both China and India see the United States as an indispensable actor in Asia. Both Asian countries are well aware of the considerable American military strength in the region and the unlikelihood of its departure in the foreseeable future. Both also accept the American presence—though with varying degrees of enthusiasm—and see it as being in their national interests. Neither seeks to challenge U.S. leadership on this front. Despite the differences that both China and India have with the United States, they want Washington to play a constructive role in maintaining regional security and in promoting economic cooperation and integration.

For all the commonality in their approaches to Asian security, China's and India's national security strategies differ in three important respects.

First, Xia notes that China strongly opposes multilateral military alliances. While Kondapalli does not assert that India is specifically looking for them, he acknowledges that India perceives the value of existing American alliances to its security. Although New Delhi will not join such organizations, he suggests that India is less averse to bilateral military cooperation as long as it can maintain its strategic autonomy.

Second, Xia and Kondapalli disagree on the potential usefulness of Asia-wide institutions. China doubts that an Asia-wide organization can adequately represent such a geopolitically diverse region, but India sees potential in such initiatives despite their failure to resolve major security issues in the past.

Third, although both Xia and Kondapalli welcome the American presence in the Asian region, they seem to do so on the basis of mutually exclusive assumptions. Xia argues that China seeks a United States that engages and cooperates with its rise, while Kondapalli notes that India wants more resolute pushback against China's excesses and is wary of any U.S. actions suggesting a Sino-American condominium in the form of a "G2." Additionally, Beijing wants Washington to make it clear to smaller Asian countries that it is not balancing against China, therefore discouraging them from confronting China over territorial disputes on the assumption that Washington will back their claims. Beijing also wants the United States to back away from its current militarization of regional issues, such as Taiwan, the Chinese-Japanese disputes, and the maritime squabbles in the South China Sea. India, in contrast, expects the opposite: it wants Washington to act as a balancing force against China's "irredentist encroachment … on the global commons." Yet because the United States has been inconsistent about doing so, New Delhi remains hesitant about aligning too closely with Washington and will continue to pursue strategic autonomy.

CONSIDERATIONS FOR U.S. POLICY

- How can the United States develop an appropriate security strategy for the Asian region that balances against Chinese assertiveness without precipitating a confrontation with Beijing?

- How can Washington reassure its Asian allies about their security without providing them incentives to mount their own challenges against China under cover of the U.S. security umbrella?

- How can the United States sustain good relations with China and India simultaneously, given the suspicions and rivalries between the two?

- Should the United States be pursuing the creation of an Asia-wide security forum that overlays the multiple extant regional and bilateral organizations?

STABILITY IN SOUTHERN ASIA: LI AND RAGHAVAN

The second pair of essays in this section focuses on the challenges in Southern Asia, defined as the Indian subcontinent in its larger environs, including Afghanistan and China. The two papers, authored by Li Li and Srinath Raghavan on China's and India's perspectives, respectively, assess each country's strategic objectives in the region, the key threats—including nonsecurity ones—perceived by each state, the nature of the political relations enjoyed by each nation with the other regional states and their impact on each other, and their views of the United States in the region.

The most striking conclusion emerging from Li's and Raghavan's analyses is that Chinese and Indian objectives in Southern Asia, at least at a formal level, are not as virulently opposed as is sometimes imagined. In fact, they might be more similar than divergent, despite the presence of some important, ineradicable irritants.

Li argues that China seeks—in order of decreasing importance—a friendly, stable, and prosperous Southern Asia. Although Raghavan does not rank India's priorities in a similar fashion, he notes that New Delhi has prioritized regional economic integration, the normalization of relations between India and its neighbors, and the promotion of regional stability. Both authors also mention the importance of their countries' sea lines of communication through the Indian Ocean.

The most prominent element of divergence in their strategic objectives, as expressed in these papers, pertains to democracy promotion. Raghavan notes that India seeks to promote democracy in the region and to influence the "policies pursued by states in the region against sections of their own populations." China, obviously, does not share this interest, but this divergence may be less significant than it appears. Although India has always felt comforted by the spread of democracy in the region and has sought to promote it through exhortation and example, its hegemony in Southern Asia has paradoxically curbed India's urge to proselytize on behalf of democracy for fear of riling its smaller neighbors.

A more significant divergence may be structural in nature. Because of India's location, what happens in Southern Asia or its environs is of enormous importance to New Delhi, whereas the great distance of the Chinese core from Southern Asia makes regional events less pressing to Beijing. As Li notes, China has been somewhat uninterested in the region as a whole historically, although that situation is now changing.

Given the broad similarity in strategic objectives, at least at a formal level, it is not surprising that both Li and Raghavan identify many of the same security threats, ranging from unstable states to terrorism to the volatile Indo-Pakistani relationship. It is interesting that neither author emphasizes the presence and capabilities of the other state as constituting a primary security threat, though the challenges posed by each to the other are never far from the surface. The Chinese and Indian assessments of geopolitical threats, thus, continue to often be polite but pointed.

Both essays, for example, agree that the intimacy of the Sino-Pakistani relationship has been, in Li's words, "an irritant" in the Sino-Indian relationship, and that in an ideal world the two relationships would be, in Raghavan's words, "de-link[ed]" from each other. While both authors therefore believe that China and India would like to separate their bilateral relationship from China's relationship with Pakistan, they differ on the prospect of this occurring. Li argues that "since China and India have agreed to look at their relationship in a broader context and perceive a stable and cooperative partnership as a guarantee to their simultaneous rise, neither of them wants to see the Pakistan issue derailing their relations." Raghavan, on the other hand, is much less optimistic, arguing that pure de-linkage is not "a realistic prospect in the foreseeable future" and that, in fact, "if Pakistan's dependence on China increases in the years ahead, New Delhi may have to start thinking about Pakistan as a subset of the larger challenges posed by China." Reflecting the complexity of regional geopolitics, however, both authors identify China as a significant and positive factor in Pakistan's recent decision to begin normalizing economic relations with India, thereby suggesting that China's relations with the smaller regional states cut in multiple directions.

Li and Raghavan identify a range of issues relating to the smaller Southern Asian states on which both China and India seem to agree. In particular, while both countries eye each other with some suspicion, they do not see themselves as fully locked into a zero-sum game for influence. Competition exists, but core strategic interests are not consistently diametrically opposed (and sometimes they even align). Thus, for instance, both countries welcome Myanmar's reform process and see each other's increasingly active role in Afghanistan as a positive development. Both are also aware of the great potential for misunderstanding, particularly from any Chinese moves in India's "backyard," as Li puts it, and both appear to be working carefully to create a constructive dynamic in these smaller states.

Chinese and Indian perceptions of security threats diverge most conspicuously in the nontraditional realm. The two analyses suggest that while China and India share many mutual security threats, they emphasize different nontraditional security threats. China has focused on drug trafficking and organized crime emanating from the region—particularly from Afghanistan and Myanmar—while India has instead emphasized environmental and natural-resource issues.

How China and India manage their interests in Southern Asia is another important issue for comparison. Both countries see economic cooperation as the principal instrument for achieving their strategic objectives. India in particular, as Raghavan phrases it, is willing "to bear asymmetric burdens" in order to do so and has accordingly entered into lopsided trade agreements, most likely a reflection of its greater investment and stakes in the region. Additionally, China and India have both supported efforts at diplomatic engagement and encouraged regional cooperation where possible.

But there is an important difference as well, which is once again linked to the geographic locations of China and India and the stakes they perceive in Southern Asia. Signifi-

cantly, China and India differ in their perspectives on the usefulness of force in the region to achieve their strategic objectives. China appears to have drawn the line at cooperative security measures, espousing a strong policy of noninterference in the domestic affairs of Southern Asian countries. While advocating similar principles as the preferred course, India has nevertheless built up its military and weighed, in Raghavan's words, "the adoption of punitive strategies" aimed primarily at Pakistan and rooted in its continued dalliance with terrorism. (China, it should be noted, has adopted a similar posture in East Asia where it has greater geopolitical stakes, but not in Southern Asia.) From the Indian perspective, Raghavan notes that "there is no reason to assume the futility of force" in securing Indian strategic objectives, although the Indian use of military instruments is conditioned by a deep skepticism as to what they can actually achieve.

Finally, Chinese and Indian perspectives seem most sharply divided on their judgments about the role of the United States in Southern Asia. Li flags the Chinese perception that the American "pivot" to Asia is itself a potential security threat, perhaps because it is also perceived as implicating India. According to Raghavan, New Delhi does not subscribe to this view. Although both authors agree that the extant American role in the region has helped slow the spread of extremism and terrorism and prevent the Indo-Pakistani rivalry from spiraling out of control, Raghavan's appraisal of the U.S. role is more positive than Li's. Raghavan identifies the United States as an exclusively beneficial actor, arguing that any differences between Washington and New Delhi are matters of "emphases and priorities" rather than objectives and that India seeks to continue working with the United States in areas of common strategic interest while managing operational differences.

In contrast, Li notes that while the United States has helped secure China to some extent, Beijing still sees Washington's increasing presence in Asia as a threat to Chinese interests and a possible prelude to containment. Notably, Li identifies the U.S.-Indian relationship as one of the elements of encirclement threatening China. To counteract these policies, Li argues that China has adopted a dual strategy of playing up common interests with the United States while strengthening its regional ties and modernizing its military as a hedge against American threats. Interestingly, Li admits that the latter half of China's policy may provoke a security dilemma with India, which seems like a realistic possibility when paired with Raghavan's upbeat assessment of U.S.-Indian ties.

CONSIDERATIONS FOR U.S. POLICY

- How can the United States encourage China to deepen its engagement with the smaller regional states without exacerbating existing security dilemmas with India or increasing the threats posed to U.S. interests?

- How can the United States and India encourage China to press Pakistan to cease its support for terrorism without deepening Islamabad's paranoia and fears of abandonment?

- How can the United States support India in encouraging political reform in the smaller regional states and greater economic integration within Southern Asia without intensifying local fears of Indian hegemony?

- How can the United States support stable bilateral relationships with both China and India while simultaneously balancing against China's rise?

PART III: SECURITY IN THE GLOBAL COMMONS

SECURITY IN THE MARITIME COMMONS: ZHANG AND SAKHUJA

The first paired set in the third section of this volume concentrates on the maritime dimension of the global commons. In essays authored by Zhang Haiwen and Vijay Sakhuja on China's and India's approaches to maritime security, the analysts describe their respective countries' perceptions of the current global maritime order, their positions on the UN Convention on the Law of the Sea (UNCLOS), the maritime conflicts currently embroiling both states, and the role of the United States in upholding maritime security.

The central point of significance in Zhang's and Sakhuja's studies is their agreement that the global maritime system is crucial to the continued prosperity of China and India. Of equal significance is their conviction that UNCLOS remains both the core and the framework of that system and that upholding it is therefore incredibly important for continued stability. The strong convergence on this position indicates that China and India, like many other developing countries, see only benefits in supporting a regime that offers strong national control and jurisdiction over ever-increasing ocean areas, especially those subject to the most intense human use. This expanding jurisdiction over broad expanses of ocean waters—a national enclosure of what was previously treated as the high seas—sets both China and India, along with many other Third World states, apart from traditional maritime powers such as the United States. The latter states instead remain wedded in outlook and practice to the older Grotian tradition of mare liberum, which defends "unfettered access to the open ocean and denie[s] the legitimacy of national claims to broad oceanic expanses."[2]

According to Zhang and Sakhuja, China and India both see UNCLOS as codifying, not rejecting, the inheritance of customary international law while also expanding upon it in various significant and welcome ways. In particular, both countries value the fact that UNCLOS expanded states' jurisdiction over their continental shelves and exclusive economic zones (EEZs), the area over which a state has certain special rights to maritime access and resources. UNCLOS also added new rules about the passage of vessels, including the activities of naval and research ships, in waters where China and India now enjoy jurisdiction.

Although Zhang and Sakhuja thus agree on China's and India's strong affirmation of UNCLOS as the new foundation for the maritime regime, their essays seem to suggest that Beijing and New Delhi emphasize different aspects of it. Zhang highlights China's focus on the freedom of the seas and notes that China supports UNCLOS because it is viewed as "equitable and reasonable." In China's interpretation, UNCLOS's primary virtue is that it allows all countries to pursue their interests in a fair way. China greatly fears the United States' ability to interfere in the rights of other states by virtue of the conjunction of its superior might and its rejection of the Chinese interpretation of what UNCLOS permits with respect to national jurisdiction. In contrast, Sakhuja stresses the importance that India places on UNCLOS's contribution to order and stability, and he argues that Indian concerns about the maritime commons are largely oriented around the mounting security challenges fueled by maritime disputes. Of course, China also appreciates the stability provided by UNCLOS, but the differences in emphasis between the two authors are potentially telling.

These differences notwithstanding, Zhang and Sakhuja both affirm that neither China nor India seeks to find a replacement for UNCLOS as the foundation for the global maritime order. Both view UNCLOS as indispensable and argue that most current maritime challenges arise from the omissions in UNCLOS rather than from its affirmative provisions. For that reason, both China and India believe that any changes to the global maritime order should occur through revisions and additions to the UNCLOS regime. In considering potential changes, both countries support a move toward, in Sakhuja's words, "maritime multilateralism" in order to better protect their interests.

In this context, Zhang and Sakhuja argue that China and India have developed similar approaches to managing their maritime disputes, both strongly supporting the process of diplomatic negotiation as the primary tool for dispute resolution. However, Beijing and New Delhi also caution that maritime disputes are not simply the result of differing interpretations of UNCLOS and that they often incorporate complicated historical, political, economic, and social factors that make them difficult to settle. Moreover, Zhang argues that UNCLOS cannot be used as a legal foundation to make new claims over territorial sovereignty since it only applies to maritime boundaries. In other words, a state's territorial claims predetermine what UNCLOS may ratify, and the new jurisdictions extended by the convention do not permit the assertion of any new territorial claims.

China and India also agree that the use of force is inconsistent with the rules established by UNCLOS. As Zhang writes, "All the rights endowed by UNCLOS are on the basis of … peaceful purposes. Therefore, the exercise of the rights endowed by UNCLOS … must be done in a peaceful way." However, both Zhang and Sakhuja note that while force may be inappropriate to protect UNCLOS-derived rights, China and India reserve the right to use force to protect their territorial sovereignty, including their ownership of any islands that are the center of maritime disputes. UNCLOS does not override this basic right.

While both authors argue that their countries support diplomatic negotiations as the primary tool for resolving maritime disputes, there appears to be some distance between them

on the issue of alternatives to diplomacy. In China's case, Zhang does not proffer a substitute solution and ignores the possibility of multilateral or international adjudication other than to note that China may find collaborative, multilateral efforts appropriate in some areas of nontraditional maritime security. This suggests that, consistent with China's current approach to the disputes in the East and South China Seas, Beijing is willing to not press its claims to permit either joint exploration or exploitation of the resources at issue among the disputants. But as it does so, it retains the right to employ force if necessary to resolve the elements of contested sovereignty that may be inherent in the quarrel. In contrast, Sakhuja argues that India enthusiastically embraces international arbitration under UNCLOS if no resolution through diplomatic negotiation is possible.

The disagreements between China and India extend to their perceptions of the role of the United States in the global maritime order as well. Both Zhang and Sakhuja note that China and India disagree with the U.S. interpretation of UNCLOS. Beijing and New Delhi have different views than Washington about what military activities are permissible in other states' EEZs, especially on the issues of surveys, probes, and reconnaissance. China and India also look askance at American maritime initiatives that might interfere with their sovereignty or the freedom of the seas.

In addition to the disagreements between China and India vis-à-vis the United States, there are significant differences in the behaviors of the two Asian powers. While China routinely confronts U.S. naval vessels and aircraft operating in its EEZ, India studiously avoids such confrontations. Thus, although the two powers reject the American legal justification for its military operations, their practical responses to these activities are vastly different. This difference can be explained only by the fact that for all their ideational solidarity over UNCLOS, China and India view the role of the United States in the global maritime order through very different lenses.

Zhang writes that Beijing suspects the United States is using its naval power to meddle in China's territorial and maritime disputes and to infringe upon the UNCLOS-derived rights of all nations. Specifically, China sees the U.S. Navy as "a powerful tool for the United States to pursue American global hegemony and intervene in regional affairs." Sakhuja, reflecting Indian perspectives about the desirability of an Asian power balance that limits China's capacity for domination, instead highlights the fact that India has extensively engaged with the U.S. Navy, has a robust program of joint exercises, and is exploring more expansive forms of military-to-military cooperation with U.S. sea services. India believes that the U.S. Navy is providing an important global public good by maintaining maritime order and stability.

CONSIDERATIONS FOR U.S. POLICY

- Would U.S. ratification of UNCLOS secure Chinese and Indian agreement to the U.S. interpretation of permissible activities in the EEZ?

- Would U.S. ratification of UNCLOS further accelerate the national enclosure of the oceans in contravention of the long-standing Grotian tradition, and would that be in the American interest?

- Would the standing American defense of customary international law in the maritime domain have any effectiveness outside of U.S. naval superiority?

- Can the ideals of unfettered access to the open ocean be sustained with the rise of new naval powers such as China if Beijing backs its jurisdictional claims over its EEZ and territorial waters with force?

- How can the United States shape Chinese perceptions about the value of the U.S. naval role in providing global public goods?

- Is it possible that Chinese and Indian views of permissible military actions in the EEZ might change if both states were to move further in the direction of becoming major naval powers?

SPACE SECURITY: SHEN AND GOPALASWAMY

The second pair of essays in the section on security in the global commons engages issues of space security, a subject of great interest in light of both China's recent antisatellite tests and the growing international recognition of the importance of space for economic and military activities. The section's two essays, authored by Shen Dingli and Bharath Gopalaswamy, address China's and India's objectives and strategies in space, their perception of the most pressing threats to their space security, their judgments about the militarization of space and the best balance between military and nonmilitary instruments for advancing their space interests, and, finally, their perceptions of the United States as a space power.

Both Shen and Gopalaswamy agree that China and India view space as a critical arena for advancing their economic and national security goals. Consequently, both states are accelerating their space programs, which are in many ways exemplars of national achievement, and both are increasingly devoting resources as well as political and bureaucratic attention to the issue of space security. Shen and Gopalaswamy agree that their countries' space programs are quite comprehensive, encompassing both the civilian and military dimensions of space technology.

This broad similarity notwithstanding, there are conspicuous differences in the two national programs. The Indian space program has been from its inception an entirely civilian endeavor, and it has only recently been pressed by its national security managers into supporting some military tasks. This reorientation, however, is still extremely modest, and the strategic components of the Indian space program pale in comparison to its emphasis on development. In contrast, China's space program has been a military effort from the start.

China does not have a clearly defined civilian space component. Instead, it has seamlessly integrated the civilian and military dimensions of space into one program. Many of its current programs—from space launchers to space systems—serve the operations of the People's Liberation Army (PLA) in a way that has no comparable analog in India.

Thus, although Beijing pursues a wide set of objectives that include exploring space and making discoveries for the benefit of humanity as a whole, these activities are natural progressions of various organizational endeavors that have, at their base, a strong military complexion. India's space organization, in contrast, is still fundamentally focused on exploiting space for peaceful purposes through the development of various space systems for communications, remote sensing, meteorology, and space science, with a newer and more limited set of national security objectives now embedded in the larger civilian effort. Gopalaswamy identifies these narrower objectives as focused on providing support capabilities for the military, countering China's burgeoning ASAT program, developing an independent space situational awareness program to counter the threat posed by space debris, and debating an International Code of Conduct for Outer Space Activities for activities in space.

As Shen and Gopalaswamy note, these broad differences in orientation are reflected in the fundamentally divergent approaches that China and India have pursued toward their strategic objectives in space. Shen stresses the Chinese government's involvement in promoting space research and exploration and suggests that China's central-planning approach has allowed it to advance quickly in terms of space-technology development. In general, China appears willing to pursue many different technological avenues in the course of its research and development process—an approach that takes advantage of the country's growing wealth and national resources. Additionally, Beijing has tested many weapons systems that have explicitly counterspace functions—the 2007 antisatellite test being the most conspicuous example—which again indicates a predominantly military space program.

In contrast, Gopalaswamy suggests that India's government has been both slow to promote space-technology development for national security purposes and hesitant to test and field space weapons. Instead, New Delhi has adopted a wait-and-see approach, settling for creating some retaliatory capabilities but refusing to test or demonstrate them until other states force India's hand. Moreover, New Delhi has taken a measured and exploratory approach to space-technology development, focusing on a few specific areas rather than advancing its technological capabilities at every level. In part, this is because India's space industry is smaller than China's. Both programs are government-directed, but the Indian government lacks the resources available to its Chinese counterpart. Thus, unlike China, which has invested in its military space programs across the board, India has specifically prioritized improving mainly its space imagery and surveillance, position and navigation, and communication systems.

> **China and India view space as a critical arena for advancing their economic and national security goals.**

All this suggests that although both China and India remain opposed to the militarization of space and have strongly advocated the use of space for exclusively peaceful ends, neither country is optimistic about preventing such a development and both are engaged in exactly those activities normally associated with militarization. Shen and Gopalaswamy acknowledge that evolving strategic circumstances may compel their countries to protect their interests by increasingly relying on military instruments, but both disavow any interest in starting an arms race in space.

But while China and India contend that any militarization will be in response to threats posed by others, they disagree sharply on the sources of those threats. Shen argues that the greatest threat to China emerges from U.S. space dominance because it upsets the balance of power in outer space, thereby affecting the terrestrial power balance as well. Gopalaswamy, in turn, cites both the generic dangers posed by the presence of debris in space and the specific challenge of China's counterspace activities as the biggest threats to India's space security. He argues that China's antisatellite test was the primary catalyst for the weaponization of India's space program. He notes that the Chinese test caught India off guard and precipitated a debate on space security as New Delhi took notice of its dependence on increasingly vulnerable assets in space.

Shen and Gopalaswamy both contend that their countries have stressed the development of an international space regime that incorporates the use of multilateral forums as part of their efforts to deal with the dangers associated with the ongoing militarization of space. Both countries, however, are skeptical about these organizations' chances of success, and they have accordingly also pursued bilateral and regional options. Ultimately, though, Beijing and New Delhi believe that only unilateral actions can adequately protect their security.

Finally, there are revealing differences in Chinese and Indian attitudes toward U.S. space superiority. According to Shen and Gopalaswamy, both China and India acknowledge, in Shen's phrase, the "technological sophistication" of the United States in space. Beijing and New Delhi hope to cooperate with Washington to maximize mutual commercial and technological gains while simultaneously tamping down security competition. But both Asian countries are skeptical about the extent of possible cooperation. Their reasons for this skepticism, however, vary greatly. Shen states plainly that China "could not live with space dominance by America." Beijing is concerned about competing militarily with Washington in space, but it fears American space hegemony even more than that competition. Gopalaswamy argues that India is suspicious of cooperating with the United States not because of any geopolitical rivalry but "due to the legacy of American technological sanctions against Indian entities." In other words, New Delhi does not see U.S. space dominance as an inherent threat but is instead concerned about the consequences of becoming too dependent on the United States given its fickle attitudes toward friendship with India.

- How can the United States maintain its space dominance without provoking continued Chinese efforts at neutralizing those advantages?

- How can Chinese counterspace investments be neutralized so as to prevent other Asian states, such as India, from developing unilateral solutions aimed at addressing the Chinese threat?

- How can the United States garner support for a code of conduct in space if such an instrument promises to be ineffective in protecting space systems when they are likely to be most vulnerable—during a conflict?

- How can the United States pursue cooperation with China in space when Beijing views Washington's space dominance as its most significant threat?

CYBERSECURITY: LAN AND BHATTACHARJEE

The final pair of essays in the section on security challenges in the global commons focuses on cybersecurity, perhaps the most pernicious problem of the contemporary age given the ubiquity of computer connectivity, the high level of network integration that ties together all the key sectors of the modern economy, and the inherent difficulties in detecting, attributing, and neutralizing cyberattacks. The significance of these problems acquires added impetus because of the pervasive evidence that China is one of the few countries that has a highly dedicated, state-supported "cybercorps" of civilian and military specialists focusing on what the PLA calls its Integrated Network Electronic Warfare strategy. These two essays, authored by Tang Lan and Subimal Bhattacharjee, detail China's and India's approaches to cybersecurity, their assessment of a desirable cybersecurity regime, their commitment to Internet freedom, and their views on cyberattacks and espionage in cyberspace as legitimate tools of warfare.

Not surprisingly given China's rise as a major industrial entity and India's emergence as an information-technology powerhouse, Tang and Bhattacharjee both affirm that China and India have steadily growing cyberspace programs that are of mounting importance to their national economies. As Tang puts it, cyberspace is "the central nervous system of China," and Bhattacharjee argues the same is true of India. Unfortunately, the increasing importance of cyberspace has been accompanied by an increasing number of threats against it in both countries. Tang lists four types of cyberthreats, all of which Bhattacharjee echoes—hacking, illegal online activities, cyberterrorism, and the militarization of cyberspace. In addition, both China and India confront actions in cyberspace that threaten their political stability, thus leading both to expansively treat such activities as cyberattacks.

In this environment, China and India have increasingly prioritized cybersecurity, albeit in fits and starts. Both countries have worked hard to first establish and then to fine-tune

a legal regime that adequately addresses cybercrimes. Both have also struggled to manage a multi-actor governmental system in which different agencies have different cybersecurity responsibilities and powers—a system not entirely different from that of United States—and have actively cooperated in bilateral and multilateral cybersecurity efforts with other countries. Finally, both China and India have recognized the importance of public-private partnerships in overcoming national cybersecurity challenges, a critical step forward for countries with large economies and many major private enterprises.

Tang and Bhattacharjee, however, perceive differences in China's and India's views on the role of industry in cyberspace. China has approached the issue of cybersecurity by linking government, industry, nongovernmental organizations, and individuals. It has encouraged industry to work toward national technological autonomy to prevent China from depending on the technology of foreign powers and thus being open to sabotage.

In China, industry works closely with regulators and often self-regulates, but in India, private actors generally work at the behest of the government rather than independently. Bhattacharjee does not mention any efforts toward technological autonomy. Perhaps the only exceptions are current Indian efforts in the telecommunications sector. New Delhi, fearful of Trojan horse technologies that could be deployed by Chinese telecommunications giants like Huawei, has developed a national strategy that requires key hardware items to be manufactured locally and incorporated exclusively into telecommunications infrastructure, particularly in components such as routers, switches, and exchanges.

Although such unilateral efforts to protect cyberspace are certain to become more common in both countries, Tang and Bhattacharjee agree that China and India recognize both the difficulty and the necessity of broader international cooperation in this area. Beijing and New Delhi are well aware that there are major disagreements between states with respect to the "perceptions of cyberthreats and priorities in addressing them," as Tang says. These divergences are compounded by differing legal systems, law enforcement capabilities, and stages of development. Nevertheless, China and India both recognize that the transnational nature of cyberspace means that states should have common objectives.

According to Tang and Bhattacharjee, this recognition should lead to the creation of a robust cybersecurity regime. Since both countries view cyberspace, in Bhattacharjee's words, as a "global public good," the authors believe that formal regulation under the auspices of the UN and the creation of new multilateral treaties to govern the system is called for. This new regime should be informed by the UN Charter and the laws of armed conflict, and it should respect state sovereignty and the necessity of resolving international disputes through peaceful means. States should complement these official efforts through multilateral cooperation and initiatives to create mutual trust in cyberspace.

While these objectives are indeed laudable, it is not clear from these analyses how China and India would expect a legal regime to deter the illegitimate actions of private actors (or private actors clandestinely supported by states) when attribution is difficult and time-consuming. A legal regime may create definitions of unacceptable behavior, but whether

it could effectively deter or penalize misuses of cyberspace is highly questionable in the absence of a strong supranational authority, which China and India are unlikely to support.

It is striking that both Tang and Bhattacharjee use similar language to describe China's and India's commitments to Internet freedom. Tang declares that China values an open Internet but recognizes that complete freedom is impossible whether online or offline. Bhattacharjee agrees, saying that while India is constitutionally committed to the freedom of speech and expression, that freedom is not unlimited and must be balanced against other concerns, including national security. Tang further argues that freedom should not be absolute and that the government should be able to fulfill its obligations as a regulator as long as Internet policy is lawful and in the interest of most Chinese citizens. Bhattacharjee echoes this attitude and avers that online content can be regulated through all means by which freedom of speech and expression would be regulated in the offline world.

But Bhattacharjee notes that New Delhi's moves toward constraining online freedom of speech and expression have been confronted by public and widespread domestic pushback, the like of which has not been seen in China. This is not surprising given India's loud and feisty democracy and the fact that such governmental actions run counter to the constitutional protections offered to free expression in India. Additionally, some Indians have resisted New Delhi's advocacy of a UN body to regulate the Internet, critically noting that this position puts India on the same side as "countries like China, which stand in the way of Internet freedom."

Finally, Tang and Bhattacharjee agree that cyberwarfare and espionage conducted in cyberspace are likely to be used by states in the future and that such a development—while of concern—is not illegal under international law. China and India disavow the use of surrogates in cyberspace or nationalist hackers as means of cyberwarfare, noting that they contravene the international conventions on war. However, both authors imply that China and India will soon develop offensive capabilities in this area (if they are not doing so already) precisely because many elements that would otherwise help deter such development—including the clarity and speed of attribution as well as the certitude of a devastating response—remain unclear.

The two essays also suggest that China and India differ somewhat when it comes to taking responsibility for attacks that emanate from within their borders. Tang argues that it is "unfair and unrealistic" to ask states to take responsibility for any attack that originates inside their territory. Bhattacharjee does not explicitly disagree, but he notes that India seems poised to sign an agreement that "mentions the duty of states to prevent their territories from being used by non-state actors to conduct cyberattacks against other states."

CONSIDERATIONS FOR U.S. POLICY

- Is it possible to develop and secure consent for a universal cyberregime that affirms the responsibility of states with respect to cyberattacks originating from their territories?

- How can such a regime effectively balance the security of cyberspace with individual freedoms?

- Is there a role for deterrence in ensuring cybersecurity, or are the only viable mechanisms layered defenses in cyberspace?

- How can private and public actors, both nationally and internationally, be integrated to deal with common cyberspace challenges across national boundaries?

PART IV: NONTRADITIONAL SECURITY

THE SEARCH FOR ENERGY SECURITY: ZHA AND JOSHI

The fourth section of this volume deals with two issues that would traditionally be treated as outside the realm of "high politics" but that have recently assumed enormous significance not only for China's and India's economic growth but also for general international stability. The first pair of papers in this section focuses on energy security, a subject of importance for any economy and especially for those growing at a particularly rapid rate. The question of whether China's and India's reliance on the global market strains existing supplies of energy is an important one, but what is perhaps even more noteworthy is whether their use of state instruments distorts the operations of global energy markets in some way. The two essays addressing these issues are authored by Zha Daojiong and Sunjoy Joshi on China and India, respectively. The authors address critical topics such as their countries' perceptions of their current and prospective energy security trends, strategies for ensuring energy security, the role of their national energy companies (NECs) in the context of their participation in international markets, and the utility of military instruments in advancing energy security.

Zha's and Joshi's contributions converge in their broad assessments of energy security trends in China and India, and the authors agree that their respective nations will experience high and rising rates of energy consumption over the next several decades. Both China and India rely heavily on coal, and this reliance—despite its deleterious environmental impact—is unlikely to decrease substantially in either country. They are also optimistic about making use of their domestic shale-gas reserves in light of recent technological advances, but they remain unsure about whether they have the ability—for technological, political, and regulatory reasons—to access these reserves in the near future.

While both China and India will use more and more energy, Zha and Joshi note the differences in their country's abilities to indigenously meet their increasing energy needs. Zha observes that China is largely self-sufficient in all energy sources save oil and that its depen-

dence on foreign sources of energy will largely be limited to this sphere. In contrast, Joshi notes that India already depends heavily on foreign sources of oil, coal, and natural gas and that this dependence is likely to intensify in the future. This comparatively greater dependence on global sources of energy will have consequences for India's geopolitical autonomy.

Given the rising demand for energy in both countries, it is not surprising that China's and India's energy security objectives are similar—but there are important differences in accentuation. Zha declares that China has strongly emphasized expanding indigenous sources of energy in accordance with its "ideological preference for self-reliance." In other words, China has particularly concerned itself with the sources of supply. India's Planning Commission, on the other hand, defines India's energy security goal as seeking to "supply lifeline energy to all citizens irrespective of their ability to pay for it as well as meet their effective demand for safe and convenient energy to satisfy their various needs at competitive prices." The pressures of Indian democracy and the objectives of its developmental state are clearly on display here, suggesting that India's primary concern is ensuring universal access qualified somewhat by price. Obviously, issues of access, source, and price are all intimately connected. But the different focuses in China and India highlight important dissimilarities in underlying philosophy that emerge from the two countries' varying stages of development and differing regime types.

> **The Chinese and Indian presence in foreign energy markets will remain a fact of life for the foreseeable future.**

These differences notwithstanding, Zha and Joshi argue that China's and India's central governments have been caught in a whirlwind of competing and varying objectives and strategies. For instance, Joshi notes that the "contradictory pulls of affordability and competitive pricing" have created an energy security objective marked by "conflicting demands," a challenge Zha says also pertains to China (though perhaps not in equal degree). At a broad level, though, China and India are united in their desire to reliably access energy at affordable prices.

In their effort to achieve this goal domestically, both China and India have adopted hybrid, market-state domestic energy systems where market prices are paired with government price controls, regulation, and subsidies. These similar systems, however, have different focuses. China focuses fundamentally on reducing its energy intensity to allow for both continuing economic growth and decreasing energy consumption, and it emphasizes the rapid domestic development of its energy assets. India has also concentrated on the domestic development of energy assets but not at China's frenetic pace and, most importantly, with less attention paid to energy intensity. Moreover, India's efforts to expand its domestic energy production base and increase energy efficiency have been mired in the complicated dynamics of its democratic politics.

In both countries the efforts to expand internal energy sources have run up against rising domestic concerns about safety—especially in a democratic polity such as India. Zha

and Joshi both note that Japan's 2011 Fukushima Daiichi Nuclear Power Station accident has led to an uptick in concern about nuclear technology in China and India. Both countries emphasize nuclear energy as an important component of energy security, but their central governments have become increasingly wary about approving new projects. India has even seen "direct civil action" and violent protests against nuclear plants (as well as hydropower projects), although similar occurrences do not appear to have broken out in China.

Yet the differences in the two governments' responses have been remarkable. Beijing has used the rising concerns about nuclear safety to ensure that China's new nuclear plants conform to the very latest Western designs. Meanwhile India has allowed its compromised nuclear-liability legislation, the culture of secrecy pervading its atomic-energy establishment, and its leisurely decisionmaking to ensure that its dreams of large-scale investments in nuclear energy will take even longer to come to fruition than its leaders originally imagined.

It remains to be seen whether alternatives to nuclear power can assuage public concerns about safety while simultaneously providing the massive increases in baseload power that are needed. Both Zha and Joshi indicate, for example, that since shale gas has not yet been well developed in either nation, opposition to the process used to release that gas—hydraulic fracturing or "fracking"—has been muted. But Joshi notes ominously that "any move to induct technologies like fracking" will likely "elicit strong negative responses from local stakeholders" in India.

The quest for energy security inevitably takes both China and India toward international sources and markets. Zha and Joshi affirm that Beijing and New Delhi have internationalized their energy security by actively pursuing foreign sources of energy through their national energy companies. Both countries have balanced a mix of market-based and statist behavior to address their general apprehensions about reliance on foreign markets. Yet according to Zha and Joshi, China and India both have extraordinarily complicated relationships with their NECs. On the one hand, the two states continue to maintain a high degree of control and influence over their NECs through various political and bureaucratic instruments. On the other hand, the NECs are also subject to the concerns and imperatives of other nonstate investors. Partially because of this, Zha and Joshi agree that Chinese and Indian NECs are typically driven by commercial concerns much more than they are by national security interests.

But there is an important difference in how the NECs are situated in each country relative to their parent government. In China, the relationship between the state and the NECs is a close one, and the NECs look to the government for state financing. In Beijing's view, this financing corrects market biases and allows the NECs to compete more successfully against other established oil companies. In India, however, the NECs are wary of government appropriation and incompetence, which leads them to exploit the rhetoric of national security for protection while also underwriting their preference for overseas invest-

ment rather than investments in, as Joshi puts it, the "more risky climes at home." As a result, Joshi concludes that Indian NECs are often pushed into aggressive behavior abroad that is commercially unwise and to the detriment of overall competition in the energy market.

The two countries also differ when it comes to state political support for NEC deals. While Zha does not explicitly argue that China uses its diplomatic heft to support its NECs' overseas deals, he does note that China is "caught in a tussle of allegiance between those states that demand diplomatic support … and the United States and its political and security allies, which argue that China should be proactive in effecting positive political change." In contrast, Joshi argues that India's NECs shun diplomatic support, "largely because oilmen often do not have too much faith in diplomacy and are always wary of commercial details of the deal becoming available to the public, or worse, to competitors."

The Chinese and Indian presence in foreign energy markets will remain a fact of life for the foreseeable future. To the extent that China and India have invested in foreign energy assets, however, they have often done so primarily in states that enjoy little foreign investment either due to their political pariah status or a risky investment climate. Both Zha and Joshi deny that their countries have sought to lock up energy assets abroad by investing in these states, largely because such a strategy is ineffective thanks to the fungible nature of energy (although Joshi notes that coal equity deals may have been a partial exception in India's case). China and India have also been more reticent than Western powers to get involved in local governance issues. Zha notes that the "standard Chinese reference to noninterference in another state's domestic affairs is … [a] recognition of the limits of China's influence," while Joshi justifies India's lack of interest in interference by referencing international law, although both countries' behavior on this score may be changing.

All told, both Zha and Joshi underline their countries' remarkably "shallow involvement in world energy governance mechanisms," in Zha's words, despite China's and India's growing shares of world energy consumption. Zha notes that in addition to "the lack of routine contacts," China often disagrees with these energy governance institutions' analyses and distrusts their motives. In response to this situation, China has tried to initiate multilateral discussions with all major energy-relevant countries. India has a similar perspective, believing, as Joshi puts it, that "bodies like the IEA [International Energy Agency] need to undergo basic structural changes" to increase the representation of countries like India and China.

On the final issue of the utility of military instruments for energy security, the elements of convergence and divergence between China and India reflect their larger approach to how global-order issues intersect with their geopolitical interests. As Zha and Joshi note, both China and India are concerned about the safety of their energy sea lines of communication, with both analysts stressing their nations' focus on chokepoints such as the Strait of Hormuz. To combat these perceived insecurities, Zha and Joshi agree that Beijing and New Delhi have committed themselves to international collective-security efforts aimed at

redressing specific security threats such as piracy. While both analysts also agree that energy concerns have fueled naval-modernization debates in their countries—Joshi even writes that India's "growing overseas energy assets" have contributed to the "steady increase in its expeditionary capability"—both states are intensely aware of their significant military shortcomings, which generally preclude the employment of their armed services in unilateral actions aimed at safeguarding their energy assets.

Zha and Joshi advance different reasons for why their respective nations will not use their own military capabilities unilaterally to protect their overseas energy assets. Zha cites the "large gap in capacities on the part of China," and questions whether even a highly sophisticated military would be effective, citing the historical failures of the U.S. military in seeking to protect its energy assets abroad. In contrast, Joshi argues that India's reticence is less about opportunity and more about motivation. He notes that the "Indian political leadership has, in general, been risk averse," and that many doubt whether overseas energy assets should be considered "strategic national investments."

It should not be surprising that while China and India share concerns about the security of their sea lines of communication, they have divergent views of the role of the United States, and particularly the U.S. Navy, in protecting them. Zha underscores the fact that Chinese analysts are anxious about the leverage of the U.S. Navy and fear that it might blockade China in the event of a conflict. India, on the other hand, is apprehensive about the withdrawal and retrenchment of American naval capabilities, especially as U.S. domestic problems threaten its defense budgets and its larger force structure. Joshi candidly recognizes that New Delhi is perceived to have been "free-riding on U.S. naval forces" and notes that any U.S. withdrawal or reduction in capabilities could increase India's vulnerability.

CONSIDERATIONS FOR U.S. POLICY

- Will the United States sustain its historical mission of providing sea-lane security in view of both its own serious budget constraints and its potentially increasing energy independence?

- Should the United States be concerned about the activities of Chinese and Indian NECs in marginal states that are of modest significance for U.S. policy?

- Should the United States incorporate China and India into the mechanisms of global energy governance in order to accelerate these nations' own domestic market reform as a contribution to larger global interests?

- How can the United States continue to increase its collaboration with India, particularly its navy, to enhance energy security in the Indian Ocean without exacerbating further Sino-Indian or Sino-American security dilemmas?

ENVIRONMENTAL ISSUES: ZHANG AND NORONHA

The last two papers in this volume conclude the discussion of nontraditional security concerns by examining the environmental challenges facing China and India and the countries' responses. Authored by Zhang Shiqiu and Ligia Noronha, these essays address Chinese and Indian perceptions of national and global environmental challenges, their strategies for dealing with these challenges, the role of international agreements in this context, and how both states seek to balance economic growth with environmental responsibility.

Zhang and Noronha agree that both China and India have encountered severe domestic environmental stress as a result of their national concentration on rapid economic growth. Health and environmental problems are pervasive in China and India, caused by the intense use of resources in production coupled with rising consumption. Among many challenges, both countries see pollution and the deterioration of domestic environmental quality as the greatest immediate threats. Noronha also cites threats to natural resources and global environmental problems as other major challenges in India. And despite some successes in improving the quality of the environment, China and India believe that persistently scare resources, high economic growth, and rapid social development will aggravate these challenges.

National leaders in China and India appreciate these challenges, but according to Zhang and Noronha the level of citizens' awareness differs from country to country. In China, Zhang argues that "the impacts of pollution on human health are widely recognized, and public debate is growing over the price China has paid for 'blindly' pursuing economic growth." In India, "the links between environmental quality, material use, public health, and quality of life are still not well understood"—although, as Noronha states, "civil society is making growing demands to moderate or alter the strategies and quality of growth to accommodate environmental concerns," much as in China.

Both China and India have sought to address these challenges through a wide variety of legislation and regulation aimed at ameliorating environmental degradation. In general, it seems that both countries have adopted primarily command-and-control measures, but there has also been a limited movement toward market-based regulation supplemented by a focus on raising public awareness.

Despite these broad resemblances, however, China and India appear to have invested dissimilar amounts of resources in environmental management. China has spent significant sums in an effort to clean up the environment. While Zhang judges that current programs are still insufficient, they nonetheless represent a genuine effort to resolve the problem. China consciously seeks to improve its efficiency, restructure its economy, and change its long-term growth path in order to guarantee its sustainability.

In contrast, India is still vacillating between "green growth strategies" and no strategy at all. Noronha notes that "the political class and the bureaucracy itself increasingly see the environment as a secondary objective to growth, in fact as a threat to growth," even though

civil society is increasingly pushing back. Noronha also warns that environmental challenges may fall even more by the wayside as India's economic growth slows. To the extent that the government has attempted to address the problem (often as a byproduct of other efforts such as energy security), its writ is frequently ignored at the level of enforcement, meaning that India has a long way to go before it successfully mitigates its environmental threats.

Zhang and Noronha acknowledge that both China and India have tried to strike a balance between economic growth and environmental health by concentrating on areas where the two issues do not conflict. Zhang notes that China has focused on improving its efficiency and promoting "leapfrog development." Noronha admits that India displays "a clear development bias," although she claims that many in India would disagree with framing the issue as one involving tradeoffs between growth and environmental health. Despite their best intentions, therefore, both China and India at some level appear to have prioritized economic growth over environmental health.

The Chinese and Indian struggles to manage environmental issues within their countries occur within the context of larger global environmental challenges. Zhang and Noronha identify widespread public awareness in both countries of these transnational environmental problems, especially climate change. But both China and India view this hazard as emerging, in Noronha's words, from the "excess and unsustainable consumption and lifestyles … of the developed world." Both authors also agree that their countries see these challenges as intensifying in the future.

According to Zhang and Noronha, both China and India believe the best way to deal with the critical challenges facing the global environment is through international negotiations among all states and through the existing institutions of global governance. This will require some series of international agreements, but their character, enforceability, and division of burdens remain issues of great contention. Additionally, neither China nor India has staked out a clear position on whether international environmental agreements should generally entail a high degree of formal obligation, presumably because any position on this question would depend on how the responsibilities were apportioned between developed and developing countries. India, for instance, would balance the loss of sovereignty against the fairness of an agreement in making a decision to sign it.

The discussion in these two papers suggests that China and India diverge over the degree of external authority that is acceptable in international environmental agreements. Zhang argues that China may support an "enforcement mechanism that is managed by an international legal authority or at least guided by meaningful rules to ensure compliance," giving the example of common accounting practices. In contrast, Noronha notes that India finds the notion of delegating external authority troubling. New Delhi perceives no need for it since "India complies … with all the international agreements that it is party to." India believes that ensuring equity in the governance of any external authority would be problematic and would therefore prefer distributed governance among existing institutions in the UN system. Given the difficulties in reaching an acceptable international consensus on these

issues, Zhang and Noronha indicate that China and India do not expect concerted global action to appear for some time and are therefore likely to stay focused on pursuing independent national solutions.

This conclusion is reinforced by the position of both countries on any future international climate change agreement. China and India strongly emphasize the importance of historical equity and the principle of "common but differentiated responsibilities" (CBDR). The two nations firmly believe that any international climate change agreement should take into account countries' historical per capita emissions, which would put a high propor-

> **Both China and India believe the best way to deal with the critical challenges facing the global environment is through international negotiations among all states and through the existing institutions of global governance.**

tion of the burden on the developed world. Similarly, both China and India refuse to take on any onerous responsibility before the developed world acts. For instance, Zhang notes that "if the developed countries are willing to shoulder their responsibilities for their share of historical emissions, China, too, would be morally constrained to directly face its future emissions and try harder to carry out domestic policies for industrial restructuring and upgrade." Noronha agrees, arguing that there exists an underlying Indian view that "India cannot moderate its growth for the sake of global environmental concerns; rather, the view is that it is India's turn to grow and it is the duty of the world to create ecological space for that growth."

Zhang and Noronha concede that China and India will need to undertake serious efforts to curb their emissions but argue that they will do so only after the developed world has committed itself to stringent caps on emissions and in a way that does not hinder development in emerging countries. Both countries also stress the importance of measuring per capita emissions as opposed to national ones, which is unsurprising given their continental sizes. Given the mutual focus on CBDR and the needs of developing countries, China and India both strongly support the continuation of the Kyoto process begun with the Kyoto Protocol and the use of the UN Framework Convention on Climate Change for a future global climate agreement. Noronha sums up China and India's views neatly by noting that "India would consider any reasonable climate change treaty, so long as it is equitable, and does not seek another century of a world divided into rich and poor."

As Chinese and Indian positions are generally in accord on the issue of managing the environment, it is unsurprising that the two countries have diverged only slightly in their perspectives on past climate change conferences. China may have been slightly more definitive about the outcomes of the 2009 Copenhagen Conference, claiming, in Zhang's words, that it reflected "the political willingness of all parties to address climate change." The Conference achieved, Zhang argues, "some consensus among the parties, and … [clarified] the di-

rection for future negotiations." India's feelings about the results of the conference may have been more mixed, but it does not fundamentally disagree with the Chinese view that the effectiveness of these discussions is open to debate. China criticized the Durban Conference on the same grounds, viewing the outcome as "acceptable but not sufficiently satisfying."

CONSIDERATIONS FOR U.S. POLICY

- Is there sufficient negotiating space to craft a binding international agreement that could be acceptable to both the developed and the developing world?

- Is the solution to managing the environment likely to devolve simply to unilateral measures to reduce emissions on the assumption that the worst burdens of climate change would be borne by the developing states anyway if they chose to make adequate matching contributions?

- Can both the developed and the developing world be induced to address climate change through more market-oriented solutions that place technology at the center of a strategy that simultaneously enhances economic growth?

CONCLUSION

A close examination of Chinese and Indian perceptions of different aspects of the global order reveals that the conventional wisdom about a Sino-Indian convergence on transnational issues vis-à-vis the West is considerably exaggerated. The differences between the two Asian giants on bilateral matters are well known, but a careful study of their positions on these major issues leads inevitably to the conclusion that the divide between Beijing and New Delhi may be just as significant on matters of global magnitude. In fact, this study suggests that outside of the international economic system, energy security, and environmental issues, Sino-Indian differences on all other examined subjects—the global order, the nonproliferation system, Asian security, regional stability in southern Asia, and security in the maritime commons, space, and cyberspace—are considerable even though those differences may not always be apparent in public discussions.

Differences in the Chinese and Indian positions sometimes arise from the two countries' competing visions but more often from their underlying geopolitical rivalry, which appears to be sufficiently deep-rooted so as to prevent the two states from realizing any natural accommodation. To be sure, both sides bend over backward to conceal their differences in public, and both have often struggled to reach some accommodation that might permit occasional practical cooperation. But the differences in national power and performance between the two countries, the seeming disdain with which China treats India, and the deep fears that India harbors about China's policies and intentions lead to a never-ending contest for securing strategic advantages. And that contest takes on critical significance as both Bei-

jing and New Delhi seek to manipulate their bilateral relationship and ties to Washington and other international capitals for national gain. The ensuing interactions, which implicate both China's and India's engagements with one another and their separate affiliations with the United States and others (which, in turn, are conditioned by the interests of Washington and the others), then make for a complex dynamic of cooperation and competition that transcends simple categories like "partnership" or "rivalry." But the dynamic does not generate the unqualified cooperation that many believe defines the Sino-Indian relationship with respect to global issues.

This reality leads to three important reminders. First, despite the superficial convergence between China and India on many global issues, there are deeper disagreements that—though sometimes subtle (especially when compared to the differences in Chinese and Indian views on the United States)—are nevertheless likely to preclude the development of a meaningful partnership between Beijing and New Delhi.

Second, the disagreements among China, India, and the United States on many global issues are often rooted in, and reinforced by, structural constraints that are significant enough not only to prevent a meaningful resolution of many transnational problems but also to generate potentially pernicious consequences for both the global order and individual states. A possible exception to this generalization might be the international economy, where the interests of all three powers may align on many of the major issues.

Third, in contrast to the global issues discussed in this volume—where there is apparent convergence between China and India even if the same is not reflected in the details—the bilateral problems that plague the Sino-Indian relationship are so serious that even their outwardly optimistic and polite rhetoric cannot mask their underlying suspicions and corrosive rivalry. This security dilemma, in turn, frustrates whatever possibilities may otherwise have opened up for bilateral cooperation on global issues. The problems inherent in this complicated interaction suggest that a better understanding of the Sino-Indian rivalry remains the critical research task for the future.

NOTES

1.   Johannes Dragsbaek Schmidt, "India and China in Comparative Perspective—Emerging Asian and Global Powers," paper presented at the Madras Institute of Development Studies, Chennai, India, November 1, 2011, 5.

2.   Wayne S. Ball, "The Old Grey *Mare*, National Enclosure of the Oceans," *Ocean Development & International Law*, 27 (1996): 100.

PART I

GLOBAL ORDER

1 How does your country perceive the existing global order?

> Does the current global order reflect and serve your country's national interests?

> How should the global order change in order to accommodate your country's rise?

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2 The formal principle underlying the current global order is state sovereignty. Does your country believe that the global system respects sovereignty in a way that serves its national interests?

> What does your country perceive to be the most important challenges to the principle of sovereignty?

> Does your country view the rise of new multilateral institutions and the ever-greater involvement of new actors in global governance as intruding on the primacy of states and limiting state sovereignty?

> How does your country cope with these challenges and developments?

> In your country's view, what takes priority if state sovereignty comes into absolute conflict with the respect for persons?

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3 The hierarchy of global power is reflected in its institutions. Does your country believe that existing international institutions adequately reflect its growing power?

> In the view of your country, is the existing structure of the United Nations Security Council fair? If not, what changes should be enacted?

> How does your country perceive the structure of existing international legal institutions (the International Court of Justice and International Criminal Court)? How does it believe those institutions should be altered?

> Is your country satisfied with its representation in existing international institutions?

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4 New rules, norms, and practices at the international level as well as the way domestic societies are organized increasingly affect states, threatening fundamental changes in the political, legal, and moral foundations of state sovereignty and in the relationship between the state, the citizen, and the international community. How does your country perceive this trend relative to its national interests?

> How does your state relate to the growing complexity of global rulemaking, where private actors and civil society groups increasingly define values that are then foisted on states?

> How does your state relate to the increasingly strong networks of nongovernmental organizations and their international links insofar as they are aimed at changing the national policies pursued by your country?

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5 In which international organizations and practices do your country's interests converge and/or diverge the most with China/India and the United States? How is divergence managed?

CHANGING GLOBAL ORDER

WANG JISI

PERCEPTIONS OF THE GLOBAL ORDER

The People's Republic of China's conceptualization of the global order has undergone significant changes since the state's founding in 1949. In the 1950s and 1960s, the Chinese leadership regarded itself as a "revolutionary" power in world affairs with its foreign policy guided by proletarian internationalism. When China improved relations with the Western countries and gained membership in the United Nations (UN) and many other international organizations in the 1970s, Beijing began to advocate for the establishment of a new international political and economic order based on reform and openness.

China's international stance in the 1970s and early 1980s was based on Mao Zedong's Three Worlds Theory. In the First World, the United States and the Soviet Union were struggling to be the dominant power. The Second World was composed of U.S. allies in Western Europe, as well as Japan, Australia, New Zealand, and Canada, and the Soviet Union's Eastern European allies. China, India, and all other developing countries were part of the Third World. Beijing's international strategy was aimed at uniting with other Third World countries, winning over the Second World, and fighting against U.S. and Soviet hegemonic schemes while playing the two superpowers against one another.

Mao's notion of the international order lost its validity with the end of the Cold War. In the early 1990s, the idea of establishing a new international political and economic order to counter the Western world in general and the United States in particular emerged in China.

The envisioned system was based on adhering to the Five Principles of Peaceful Coexistence, opposing superpower hegemony and power politics—that is, U.S. domination—and facilitating the development of a multipolar world in which Western power and influence decreased while the developing world's power increased.

The present global order has in many ways allowed China to cultivate its national interests. Beijing has enjoyed a peaceful environment ever since it made the decision in the late 1970s to reform its system and concentrate on economic development. The international security environment has been generally favorable to China, and the danger of a major conflict between the great powers remains low. In 2002, China announced that it would capitalize on a twenty-year period of strategic calm in the international arena to focus on its domestic priorities. The mainstream thinking in Beijing is that the international environment will largely be peaceful and favorable over the next ten years as well.

In addition, it is China's official position that economic globalization is an irreversible trend in the contemporary world and that Beijing has benefited enormously from opening itself to the outside world. China defines its system as a "socialist market economy" but accepts major market economy principles such as efficiency, limited government intervention in the market, and the protection of intellectual property rights.

> **In China's view, the greatest challenge to its state sovereignty and authority comes from Western powers, particularly from the United States.**

And if the definition of global order includes the global power structure and power distribution, then China believes it is moving in a favorable direction. The Western world as a whole has been declining, especially since the global financial crisis, with its share of global GDP shrinking, whereas China and the broader Pacific region are seen as emerging power centers.

Since the beginning of the twenty-first century, China has further moderated its attitude toward the existing global order. Beijing sees the existing arrangement as lacking justice and equity, but as one that has room for improvement if it can accommodate the aspirations and interests of developing countries. The implication of the subtle change is that China has quietly put aside the expectation of establishing an entirely new system, instead advocating for a more just and equitable political and economic order. China can live with the current order but prefers to have it reformed and transformed.

China still sees its national interests hampered by the present system, most certainly because of Western dominance and the gradual erosion of developing countries' sovereignty.

STATE SOVEREIGNTY

To the Chinese, the most fundamental deficiency in the global order is Western countries' attempts to erode the sovereign rights of developing countries. China believes strongly that sovereignty is the organizing principle in conducting international relations, and that sovereign rights should override individual rights—taking the form of human rights or civil rights—if there is any conflict between them. The most salient tenet in China's foreign relations has long been the safeguarding of sovereignty and territorial integrity. In contemporary international affairs, China also supports noninterference in other countries' internal affairs. In fact, China's official statements have only referred to the "international order" rather than to the "world" or "global order," as the latter two concepts can downplay the importance of state sovereignty.

In China's view, the greatest challenge to its state sovereignty and authority comes from Western powers, particularly from the United States. Washington has maintained its military commitment to Taiwan, an island that China regards as its territory, by selling advanced weapons and sharing military-related intelligence with the island. It is feared in Beijing that should the Chinese mainland have to use military means to prevent Taiwan from achieving de jure independence, the United States would invoke the Taiwan Relations Act to protect the island, which would result in a major war between China and the United States.

Washington also supports and sympathizes with the Dalai Lama, whom the Chinese regard as a separatist politician who inspires and leads a Tibetan group abroad to seek independence from the rest of China, rather than as a religious leader. Virtually all the Chinese political forces aligning against the Beijing government—including what are referred to in China as the Tibetan and Uighur "separatists," Falungong (regarded in Beijing as an evil religion) followers, and political dissidents actively involved in the Tiananmen demonstrations in 1989—have their bases on American soil. Following the Tiananmen storm in 1989, Washington and many European capitals accused Beijing of human rights violations and imposed sanctions on China, some of which are still in force.

To a large degree, China's reaction to Western interference in its internal affairs determines its attitude and policy toward events in other countries where Western powers are seen as taking advantage of indigenous problems and tensions to topple the governments they dislike and to prop up dissenting forces in the pursuit of their own strategic interests. For instance, in 1999, Beijing strongly condemned NATO's Kosovo War and supported the Yugoslav government led by Slobodan Milosevic. Beijing viewed the various prodemocratic uprisings in a number of former Soviet states, Balkan states, and the Middle East as staged or stimulated by Western countries and therefore was suspicious of the legitimacy of the indigenous forces that spearheaded those "revolutions." A recent example is China's stance on outside interference in Syria; in February 2012, Beijing joined Moscow in vetoing a United Nations Security Council resolution calling for the Syrian president to step down.

Meanwhile, many Chinese observers contend that the inadequacy of state supervision of the financial market caused the global financial turbulence in 2007–2008, and that China's state intervention in its economy has saved the country from being devastated by that turbulence. Similarly, they argue that states need to more closely manage issues of global governance and sustain stability in various regions and countries. Chinese media report that many political thinkers in the world may agree with this view, and that a number of developing countries are interested in learning from the "China Model" or "Beijing Consensus," in which the state has a hand in every aspect of society.

INTERNATIONAL INSTITUTIONS AND HIERARCHIES

The Chinese government adopts a differentiated approach to dealing with new formal and informal multilateral institutions. One precondition of recognizing or participating in them is that there must be no Taiwanese participation under the name of the Republic of China or any other name that might imply statehood. For those institutions that are less politically sensitive—those related to science, technology, or education, for example—Chinese participation is less restricted. In those cases, both governmental and nongovernmental Chinese organizations may be involved in international activities. China now has a seat in virtually all international institutions and hopes that its role will be enhanced according to its growing power and influence in world affairs.

As one of the five permanent members of the United Nations Security Council with veto power, China already plays a significant role in global security and political issues. China's attitude toward the enlargement of the UN Security Council has been very cautious and at times ambiguous. However, barring a more satisfying solution, Beijing is essentially content with a formulation of the Security Council in which China is the only Asian country and the only developing country that enjoys veto power.

> **Multipolarization in global politics and economics, a trend China has dreamed about for decades, is becoming more of a reality.**

In principle, China insists that in any enlargement of the Security Council, priority must be given to increasing the representation and voice of the developing countries, which constitute over two-thirds of the UN's membership but are seriously underrepresented on the Security Council. Meanwhile, it is China's official position that the enlargement of the Security Council must uphold the principle of geographical balance and represent different cultures and civilizations.

Given those considerations, Beijing has strong reservations about giving Japan or Germany permanent member status on the Security Council. In fact, Beijing used much of its diplomatic power and political capital in 2005 to thwart Japan's bid for permanent status.

While it is for increasing the representation of African countries on the Security Council, China asserts that approaches to reform in this area must be agreed upon within the regions concerned before plans move forward. China is firmly opposed to setting an artificial timeframe for that reform and does not believe a vote should be held on any reforms until significant disagreements among UN members have been worked out.

China's attitude toward India's interest in seeking a permanent Security Council seat has never been explicitly announced. On the one hand, Beijing confirms that it would like to see India play a more important and active role in Asia and in global affairs. On the other hand, Beijing has to take into consideration the interest of its close ally Pakistan, which vehemently rejects India's bid for a permanent seat.

After more than fifteen years of painstaking international negotiations and domestic reforms, China succeeded in joining the World Trade Organization (WTO) in 2001. The Chinese have been actively participating in the International Monetary Fund (IMF), the World Bank, and nearly all other major international economic organizations and regimes.

Beijing views the G20 as a useful and important forum in which China is playing a crucial role, as compared to the earlier G8 summit meetings in which China participated but was not part of the core group of states. Additionally, there are now increased cooperative mechanisms among the BRICS (Brazil, Russia, India, China, and South Africa). Multipolarization in global politics and economics, a trend China has dreamed about for decades, is becoming more of a reality.

However, the Chinese still feel that China is underrepresented in international institutions in general. The Western world continues to play a leading role in the key global economic and financial bodies. The U.S. dollar will remain the dominant international currency in the foreseeable future, and the top positions at the WTO, IMF, and World Bank are still held by the Americans or the Europeans, or are basically appointed by them. The industrialized countries wield tremendous influence, and for many years to come, the economic and financial imbalances will continue, as "the East produces, the West consumes." In other words, the global economic order is far from fair to the developing countries.

In addition, global climate change and the calls by industrialized countries—supported by a number of small island states—for the reduction of carbon emissions are increasing the pressure on China to more quickly rebalance its economy. Although it is in China's own interest to build a green economy, the Chinese do not want their policies of climate change, energy, and environment to be bound by international agreements imposed on them.

China hopes that at some point Chinese representatives will take more leading positions in the WTO, IMF, World Bank, and other prominent international organizations. Meanwhile, it is understood in China that the country needs more well-trained, internationally exposed, and experienced Chinese citizens to play an active role on behalf of China on the global stage, and that it will take multiple years to achieve that goal.

For understandable reasons, China has strong reservations about the roles of the International Court of Justice (ICJ) and the International Criminal Court (ICC) in settling inter-

national disputes. But there is no evidence that Beijing has a systematic objection to international legal institutions like the ICJ and ICC, or that it believes those institutions could be altered to suit its preferences. Beijing's resistance to them seems to be based on either ad hoc decisions or negligence.

At the ICJ, final indictments were issued by the International Criminal Tribunal for the former state of Yugoslavia in December 2004, and Slobodan Milosevic became the first sitting head of state to be indicted for war crimes, along with a number of other formerly high-ranking government officials. Based on its opposition to the Kosovo War, China did not see much justice in these indictments. When the Philippines approached the ICJ concerning its territorial dispute with China over Huangyan Island (which the Filipinos call Scarborough Shoal), Beijing rejected the move, stating that China is against any international arbitration in South China Sea issues. China was similarly opposed to certain ICC steps, such as the body's issuance of an arrest warrant for Sudanese president Omar al-Bashir in March 2009. Beijing argued the move would not help stabilize the situation in Sudan.

THE RISE OF INTERNATIONAL CIVIL SOCIETY

Many observers in China and abroad argue that new rules, norms, and practices at the international level are increasingly empowering citizens and society relative to the state. In China's case, however, that argument is politically incorrect and unacceptable. The trend toward a more liberalized society is exactly what should be opposed and resisted by imposing stronger state power and authority over citizens.

China has created and improved highly sophisticated organizations and techniques to control the flow of information on the Internet and to censor "unhealthy" ideas. Political indoctrination has been a long-term strategy ever since the founding of the Communist Party of China in 1921 and especially since the founding of the People's Republic in 1949. Beijing's information-control instruments and tactics are by far the most advanced in the world, and arguably in human history. To those carrying out this strategy, there is little reason why it would cease to work and therefore why it should be reconsidered. The only question is how the efforts can be strengthened and readjusted in accordance with new circumstances.

In recent years, the Chinese government has become more tolerant of the activities of nongovernmental organizations (NGOs) in both domestic and international settings. Additionally, the notion of global governance is widely used in Chinese official statements, media, and publications. However, "civil society" is a sensitive and apparently alien idea that has not yet been included in China's official vocabulary. China is quite vigilant against any possible infringement on its sovereignty, with particular attention paid to sensitive issues like human rights or civil rights, religious freedom, ethnic relations, press freedom,

labor rights, birth control policy, or any public policy issues that could be controversial inside China.

In addition, it has become increasingly difficult to distinguish between state actors and nongovernmental actors in China's foreign relations. For instance, it is widely believed in the Chinese leadership that the U.S. and Norwegian governments orchestrated the awarding of the Nobel Peace Prize to Liu Xiaobo, a well-known Chinese political dissident, in October 2010, despite the explanation given to Beijing that this decision was made independently by the Norwegian Nobel Committee, which is not a government agency. Such incidents serve as a reminder that private citizens, government agencies, and nongovernmental players can interact with each other to challenge China's sovereignty and jurisdiction.

Only a small number of truly independent Chinese NGOs exist, and they are limited in scope and size. Strict regulations and practices ensure that research institutions, scholarly societies, private foundations, philanthropic organizations, and other horizontally organized bodies are under government supervision. In China, international organizations and activities of these types are requested to find an authorized Chinese sponsor or partner and must be officially registered, although some of them do attempt to operate in a "gray area." It is difficult for foreign NGOs to be openly listed and registered through Chinese government agencies.

CHINA, INDIA, AND THE UNITED STATES

More broadly speaking, China shares a great deal of common interests and goals with India in global and regional issues, especially those related to economic development, trade regimes, climate change, and human rights. The voting behaviors of the two countries in these issue areas are similar in many international organizations and settings. However, China is particularly concerned with its regional security situation, which is closely related to its relationships both with India and the United States.

A long-standing territorial dispute between China and India remains unsettled, and the two countries have adopted different policies toward their shared neighbor—Pakistan. In addition, Beijing has suspected in recent years that Washington wants to drive a wedge between China and India, with the Americans fearing the emergence of China more than the rise of India.

Beijing is particularly sensitive to any security and military relationship established between Washington and Delhi, as many in China's defense establishment view U.S. actions as designed to strategically encircle China in the Asia-Pacific region. The North Atlantic Treaty Organization (NATO), in an effort led by the United States, has had a military presence in Afghanistan, which borders China, since 2001, and the United States has strengthened its military ties with Japan, South Korea, the Philippines, Singapore, Australia, and other

regional players. More recently, the United States has enhanced security cooperation with India and Vietnam, neighbors of China that once fought border wars with Beijing, and territorial disputes between the countries are ongoing.

Beijing views the NATO alliance and U.S.-led security arrangements in the Asia-Pacific region as legacies of the Cold War that should have been abolished with the demise of the Soviet bloc, the improvement of China's relations with its neighboring countries, and the easing of cross–Taiwan Strait relations. To Beijing, the continued existence of these alliances and arrangements is a reflection of the preeminence of the United States in global security affairs. It is suspected that the United States wants to take advantage of territorial disputes and strategic suspicions between China and some of its neighbors to weaken Chinese defense.

> **China still sees its national interests hampered by the present system, most certainly because of Western dominance and the gradual erosion of developing countries' sovereignty.**

Interestingly enough, although China and the United States usually take different positions on significant international political issues, their attitudes toward the enlargement of the UN Security Council are similar—they worked in parallel in 2005 and on some other occasions trying to block the plan put forward by the "Group of Four" (Brazil, Germany, Japan, and India) to add new permanent members to the council.

Despite the international forces at play, in the long run, China's management of its convergence and divergence with India, the United States, and other major powers depends largely on its domestic trends. The discussion of China's global role strikes at the core of the unending debate among the country's political elites concerning what path the nation really wants to take.

Some Chinese aspire to build a modern economy within an all-powerful one-party state that will ultimately defy U.S.-led Western primacy. They believe China is already halfway to achieving that goal. Others contend that China's recent success story should largely be attributed to its opening and reform as well as the moderate foreign policy it has carried out, not to the adherence to its traditional institutions and principles. In this context, all specific international policies are circumscribed by temporary—primarily domestic—considerations. A clear-cut Chinese "grand strategy" is not yet in sight.

CHANGING GLOBAL ORDER

C. RAJA MOHAN

PERCEPTIONS OF THE GLOBAL ORDER

Over the last century, India's worldview has been shaped by three central ideals: the importance of morality in foreign affairs, a belief in India's great-power potential, and anti-colonial solidarity with developing nations. That worldview stemmed from India's national movement, which came of age in the period between the two world wars and was quite internationalist in character.

Because of its liberal internationalist mindset and confidence in the superiority of moralpolitik, India was deeply critical of power mongering and militarism and denounced the barbarism of great-power competition. And as India is one of the world's oldest continuous civilizations, many Indian nationalists believed the country was destined to play a large role in world affairs in the aftermath of colonialism. Writing in the 1940s, just before India became independent, its future prime minister Jawaharlal Nehru was confident that India, along with the United States, Europe, China, Russia, and Japan, would be part of the six-power constellation shaping international affairs in the future.

India's opposition to imperialism and the hegemony of the great powers is only natural in a country that fought against prolonged British colonial rule. This produced a genuine sense of empathy with those in Asia and Africa fighting to liberate themselves from European colonialism. During the Cold War, when the United States and Europe aligned with India's

regional adversaries, that anti-colonial sentiment became primarily anti-Western and permeated Indian politics.

These principles were not always compatible and at times came into direct conflict with one another, but they have coexisted to form India's worldview. In the first years after India gained independence in 1947, moralpolitik prevailed as Nehru raised India's profile on the world stage. India actively participated in the global debates of the day and contributed to conflict reduction and peacemaking in the 1950s. During the 1970s and 1980s, India's focus was on changing the world order through collective action undertaken by the so-called "Global South"—the nonaligned movement and the G77. Delhi denounced the global economic system as favoring the developed world and called for a new international economic order.

India went on the defensive after the Cold War, fearing the world order might undermine its core national security interests. In particular, Delhi was wary about the rapid changes in the global nuclear order and the emergence of new international constraints on India's pursuit of nuclear and missile programs. As the country's economic strength increased and its great-power relations improved—especially the India-U.S. relationship—Delhi was brought into the global nuclear order in 2005–2008 thanks to the initiative of President George W. Bush. Although India has not formally been recognized as a nuclear-weapon state, many of the penalties imposed on it for acquiring the weapons have been eliminated. India now sees itself as a "responsible" nuclear-weapon state.

> **India now sees itself as a "responsible" nuclear-weapon state.**

Delhi was also deeply concerned that the new Western emphasis on human rights might undercut its ability to manage its surging secessionist movements at home. The past Western tilt toward Pakistan in its dispute with India on Kashmir provided the historical basis for these fears. But as the Western powers began to appreciate the virtues of Indian democracy and political pluralism, many of Delhi's anxieties about international intervention in Indian internal politics have eased.

India, however, remains concerned about the rising protectionist tendencies in advanced nations. As a late developer and a new beneficiary of globalization, India seeks to limit the variety of new Western controls on India's ability to export and build domestic economic prosperity. India also does not agree with efforts to contain global warming that could limit its own economic growth, and it is uncomfortable with the tendency to promote internal societal change through collective international intervention.

Unlike in the past—when it was either guided by "innocent internationalism" or saw itself as the leader of the South contesting the global hegemony of the North—India is now open to negotiation with the other powers on the management and modernization of international economic and political systems. While there are many Indian voices calling for the country to remain strategically autonomous, India's deepening economic integration

with the global economy and political engagement with the rest of the world has altered the terms of Indian debate on the international order. India no longer sees itself as a protesting outsider and recognizes its new stakes in a liberal international economic order.

Delhi continues to press for structural changes in the international system and to negotiate hard to preserve its national interests, but no longer as an adversary. Instead, it is a rising power that is ready to engage the global order in pursuit of its national interests and emerging international responsibility.

STATE SOVEREIGNTY

As a country that was established less than seventy years ago and that faces many challenges in turning its population into a nation, India is deeply committed to state sovereignty as the most important principle in international relations. India was far more universalist in the early years of its independence, when idealism and liberal internationalism guided its worldview. In the drafting of the Universal Declaration on Human Rights at the United Nations in the late 1940s, India's approach was interventionist, while the European colonial powers sought refuge under the principle of territorial sovereignty. India also strongly advocated collective international action against the apartheid regime in South Africa; the opposition came from the Western powers and lasted well into the 1980s. India also took its territorial dispute with Pakistan in Jammu and Kashmir to the United Nations Security Council (UNSC) in 1949 and was deeply disillusioned with the power politics in the UNSC.

Since the end of the Cold War, India has been concerned both about the threats to its own sovereignty from external intervention and, more generally, about the nature of the international community's approach to the question of state sovereignty when facing humanitarian crises and transnational security threats. As India becomes strong, feels more confident about managing its internal turbulence, and has better relations with the West, Delhi's fears that other powers will undermine its territorial sovereignty decrease. India recognizes the importance of states shedding some sovereignty to promote international cooperation. Efficiency in dealing with new global challenges demands a measure of pooling national authority.

However, India is wary of the cavalier manner in which the Western powers have intervened in various parts of the world in the name of nation building, promoting democracy, and fixing failed states. And it is deeply concerned that new tools, including cyberwarfare, social media, and nongovernmental organizations, are being used to undermine state sovereignty. Moreover, Delhi is not confident in the capacity of the international system to modernize the internal structures of various societies or in the efficacy of multilateral interventions. The disappointing record thus far justifies India's skepticism. There is nothing to suggest that external intervention helps short-circuit the complex process of building a state.

India's preference is to arrive at a prudent political judgment on each specific case rather than relying on a broad principle that can be applied in all circumstances. This understand-

> **Although India has traditionally played a prominent role in multilateral organizations, Delhi's participation in a variety of those bodies has not been able to keep pace with its own growing international weight.**

ing arises out of India's own military interventions—in East Pakistan in 1971 and in Sri Lanka between 1987 and 1990. India's short intervention in East Pakistan successfully ended the genocide of the Bengalis by the Pakistan Army. In Sri Lanka, India tried to promote the minority rights of the Tamil people within the framework of a united Sri Lanka. But the military intervention in Sri Lanka failed to achieve India's political objectives. Even in the most clear-cut cases of state oppression, the current Indian approach would suggest, the costs, prospects for success, and the long-term political consequences of external interventions must be weighed before action is taken.

India is also very skeptical of framing the current debate as one of sovereignty versus multilateralism. The mainstream view in India holds that the current international debate is about violating the sovereignty of weak states, not about tempering the influence the strong have on the weak. Seen from a historical perspective, this is no different from the dictum that great powers do what they can, and the weak endure what they must.

INTERNATIONAL INSTITUTIONS AND HIERARCHIES

Permanent membership on the United Nations Security Council remains one of the most important unmet Indian objectives in the global arena. When reform of the UN became part of the international agenda in the early 1990s, India began pressing for the expansion of the Security Council and made its own case for permanent membership. India argued that the current structure of the Security Council, which reflects the balance among great powers at the end of the Second World War, is outmoded and ineffective. Delhi insisted that the council must be reformed to take into account new geopolitical realities and the importance of wider geographic representation. India emphasized its own size and historic contributions to the maintenance of international peace and security, as in the area of international peacekeeping.

Although India's principled case for permanent membership has gained much support, its campaign, along with those of Germany, Japan, and Brazil, has stalled. China is reluctant to let India and Japan take permanent seats and has been actively undermining the G4 effort to expand the Security Council—a stark reminder for India that international institu-

tions cannot transcend great-power politics. While Delhi's quest for a permanent seat has widespread support in India, some Indian strategists emphasize the importance of India strengthening its real power capabilities rather than pursuing symbols of power in international politics.

Domestic critics of India's UN Security Council campaign point to the huge political obstacles to expanding the body and the near-term limitations India faces. They underline the domestic political constraints that would prevent India from taking sides on controversial international issues, which it would be under more pressure to do as a permanent member. Delhi has already had difficulty taking active positions in the Security Council on various conflicts in the Middle East during 2011 and 2012, which has added weight to the arguments of those calling for strategic patience on India's part.

Those voices also emphasize the need for India to look beyond the Security Council and raise its profile in a range of old and new multilateral organizations. Although India has traditionally played a prominent role in multilateral organizations, Delhi's participation in a variety of those bodies has not been able to keep pace with its own growing international weight, the external expectations of the role India should play in those forums, and above all India's expanding global interests.

In the realm of international law, sovereign India was scrupulous in its observation of treaty obligations and often took its disputes to arbitration. The Indian national movement, led by lawyers, set much store by international legal norms and institutions. Article 51 of the Indian constitution declares that India "shall endeavor to (a) promote international peace and security; (b) maintain just and honorable relations between nations; (c) foster respect for international law and treaty obligations in the dealings of organized peoples with one another; and (d) encourage settlement of international disputes by arbitration."

After the Cold War, India's concern that its internal vulnerabilities, such as secessionist movements, would be exploited by the new supranational global order was most evident in its emphatic rejection of the International Criminal Court (ICC). Unlike the International Court of Justice, whose jurisdiction was voluntary, the ICC statute had provisions for compulsory jurisdiction when ordered by the UN Security Council. That Indian security forces could be brought under the jurisdiction of international law, while the permanent members of the Security Council could insulate themselves from such burdens, was fundamentally unacceptable to India.

India's rejection of the ICC statute reflected Delhi's determination to prevent any international involvement in the management of severe challenges to its territorial sovereignty. Its concerns were not entirely theoretical but rooted in real developments. They emerged out of the Western focus on alleged human rights violations by Indian security forces in the disputed territory of Jammu and Kashmir in the 1990s and crystallized at a time when Pakistan was trying to internationalize its dispute with India over control of Kashmir.

While some of India's worst fears about the ICC have not come to pass and its relations with the major powers improved significantly in the 2000s, Delhi's core concern about the

ability of the permanent five members of the Security Council to introduce international legal scrutiny to its domestic security affairs is unmitigated. India is acutely conscious that its process of democratic nation building is not complete and the prolonged process will necessarily involve the use of state violence.

India's objections to the discriminatory structure of the ICC provisions could ease if and when the country becomes a permanent member of the Security Council, with all the privileges that the current P-5 enjoy, though realists in Delhi are not betting that India's elevation to such status is in the cards. India is nevertheless in a position to participate more productively in the deliberations of the ICC as an observer.

THE RISE OF INTERNATIONAL CIVIL SOCIETY

While the Indian foreign policy establishment takes genuine pride in the nation's democratic values and its contributions to the development of multilateralism, Delhi has had considerable difficulty in coping with some important challenges that have emerged since the end of the Cold War. Although India believed in the principles of economic liberalization as a strategy for its national development, the country at first had to constantly struggle to manage tensions between the demands of the international economic system and what was politically feasible at home. As India began to benefit from globalization and increased prominence in the international system, Delhi has become less shy about engaging the world and partaking in the various bargains that are necessary to construct a more open global economic order.

India's positions on various multilateral issues converge and diverge with those of the United States and China.

Coping with the political demands of the post–Cold War international system in the realm of human rights and a range of other domestic issues has been far more difficult for Delhi. A number of issues have become the subject of international scrutiny: India's treatment of religious minorities; the occasional failures of the state to protect the minorities against violence; the persistence of caste discrimination, gender inequality and violations related to sexual orientation; and corruption. Above all, its use of force to quell conflicts in Kashmir, Punjab, and the Northeast has complicated India's relations with Western countries. In addition, strains of both left-wing and right-wing xenophobia are present in India. In the past, blaming the "foreign hand" has been a convenient excuse for Indian leaders, and various groups have been berated for having links to foreign civil society organizations.

Although India has strongly resisted the meddling of the international community in its internal affairs, as a democratic state, it has undertaken incremental adjustments to its own

internal policies that have widened and deepened the domestic monitoring and imple-mentation of international human rights standards. The last two decades have also seen an explosion of nongovernmental organizations (NGOs) and civil society groups that are active on a range of issues and have strong contacts with international networks. While the NGO networks have often succeeded in crafting treaties like the Land Mines Convention and the Oslo Convention on Cluster Munitions, their uncompromising emphasis on principles has reduced the utility of the new instruments by forcing the major powers out of these conven-tions.

Given the breadth of the current NGO activity in India and the intensity of its inter-national contact, India has learned to live with new realities. There is sufficient suppleness and resilience in the Indian state to allow the expanding NGO activity and retain sufficient flexibility in formulating its policies in multilateral organizations.

INDIA, CHINA, AND THE UNITED STATES

India's positions on various multilateral issues converge and diverge with those of the United States and China. All three guard the state's primacy on national security matters and refuse to cede power to external transnational institutions. For example, all have stood in opposition to the International Criminal Court, been reluctant to join the convention on landmines, and hesitant to ratify the Comprehensive Nuclear Test-Ban Treaty. And all three often defer more to domestic political considerations than international norms.

Indian views are quite similar to those held by a section of the U.S. foreign policy estab-lishment that insists that transnational institutions, run by unaccountable bureaucracies, cannot and should not take away the power vested in democratically empowered govern-ments. As an emerging power and newly sovereign state, India also shares China's deep suspicion of supranational institutions. Their emphasis is on carefully negotiated relations between nations while they limit efforts to construct a system that transcends national boundaries.

During the Cold War, India's differences with the United States were deep and wide-spread. Over the last decade, Delhi and Washington have sought greater bilateral consul-tation, coordination, and cooperation on multilateral issues. The United States supports India's aspirations to become a permanent member of the Security Council, while China remains the only member of the P-5 that has not endorsed India's case.

The resolution of differences on nuclear nonproliferation has been a major step toward greater political comfort between Delhi and Washington, but the Indian-U.S. civil nuclear initiative laid bare India's enduring problems on the nuclear front with China—Beijing's opposition to the integration of India into the global nuclear order. Unlike Washington, Beijing has also been reluctant, so far, to support Delhi's membership in the Nuclear Sup-

pliers Group. India, meanwhile, sees itself as a responsible nuclear power and claims a better record on preventing proliferation than China. But Delhi's position is closer to Beijing's when it argues against the use of force to prevent or roll back the spread of nuclear weapons, as in the cases of Iran and North Korea.

On the question of democracy promotion, India has moved slightly closer to the United States. While India strongly opposes the use of force to promote democracy and, like China, cautions against externally induced regime change in the developing world, it has been participating in forums such as the "community of democracies" and has backed the UN Democracy Fund. Delhi is ready to share its own experiences with building a democracy and to help bolster the capacities of countries in transition.

Unlike China, India does not view sovereignty as an absolute principle nor does it oppose all interventions in the internal affairs of other states. And while China is worried that the West will use humanitarian arguments to undermine its internal political order, India is slightly more secure about the stability of its own democratic structures. At the same time, India has not forgotten that Western powers have used high-minded slogans in the past to justify their interventions. Delhi recalls how the European colonial powers abused the mandate system of the League of Nations after the First World War and tried to take back their territories after the Second World War. It remembers the many Western interventions in the name of making the world safe for democracy that mostly failed. India also cannot forget the fact that the United States joined China in opposing the Vietnamese intervention to end Pol Pot's genocide in Cambodia. Nor can it ignore the extended resistance of the Western powers against the efforts to isolate and punish the apartheid regime in South Africa. India has also warily watched Western interventions in its own neighborhood and the developing world at large.

In addition, India sees the current debate in the United States on sovereignty, intervention, and multilateralism as an internal debate on how best to use American power for the promotion of what Washington considers the correct values and appropriate norms. After the wars in Iraq and Afghanistan, India is confident that this temptation will be curbed by deepening domestic differences in the United States about when and where to use military force. India, however, is less certain about how China might use force beyond its borders as its military power expands and its clout in the multilateral system increases. A more interventionist Chinese policy and decreasing deference in Beijing to the sovereignty of its smaller neighbors in India's neighborhood is of greater long-term concern for Delhi than the current Western debates, which are rooted in a premise that U.S. sway over multilateral institutions and norms is supreme and unchanging.

American and Chinese multilateral policies are evolving, as are India's. Delhi is stepping up its bilateral engagement with both Washington and Beijing on multilateral issues. The objective is to limit the fallout from the real differences that exist between the countries and expand the areas of cooperation. India emphasizes issue-based coalitions with the two great powers while maintaining its pursuit of its own national interests. In the past, Delhi was also

anxious about the impact of the U.S.-Russian rivalry on regional and international institutions, but India is now deeply aware that the nature of the Sino-U.S. relationship, whether it is rivalrous or cooperative, will be the defining influence in the evolution of multilateral institutions, both global and regional.

Delhi seeks to preserve its freedom of action by sustaining its traditional political equities in the developing world and building smaller groupings with other middle powers as part of an attempt to strengthen its own influence through multilateral organizations. After decades of staying away from regionalism, India is eager to use regional institutions to consolidate its primacy on the subcontinent, raise its profile in the Indian Ocean, contribute to the balance of power in the Asia-Pacific through more active participation in East Asian regionalism, and improve its bargaining power in matters of global governance.

1 How does your country perceive the existing free-market-oriented structure of the international economic system? How does your country think the system and its values should be changed in order to accommodate your country's interests?

How does your country perceive the structure of the world's existing international trade institutions (for example, the World Trade Organization)? Should those institutions be altered?

How does your country perceive the structure of the world's existing international financial institutions (the World Bank and the International Monetary Fund)? Should those institutions be altered?

2 How does your country reconcile the reality of an open international trading system with still-substantial state controls over domestic economic policies?

Thus far, the international economic system has helped both China and India grow prosperous, but in the future, an open economic system may require the Chinese and Indian economies to act as the engine of growth for other states. What does your country think about a future tradeoff between an open economic system and rapid national growth? Alternatively, how does your country balance protectionist policies that are beneficial in the short run and open-market policies that are better in the long run?

China has been accused of manipulating its currency to undergird its export-oriented economic strategy. India is still reluctant to embrace full convertibility of the rupee. Do such strategies reflect a distrust of the current global system and an unwillingness to support its expansion?

3 What is your country's view of the dollar as the world's reserve currency? Does your country believe that should be changed? If so, how?

4 How does your country perceive the importance of expanding the current liberal international order?

Should the international community emphasize global agreements or regional free-trade agreements?

What should be the priorities for future expansion of the global trading system?

5 How does your country assess the geopolitical challenges arising from the differential rates of growth associated with an open international economic system?

INTERNATIONAL ECONOMIC SYSTEM

ZHANG YUNLING

CHINA'S PERCEPTIONS OF THE GEOPOLITICAL AND ECONOMIC CHALLENGES

China has achieved great success in its economic development since it adopted policies to reform and open its economy to the international system. Its economic rise in the first decade of the twenty-first century has been especially momentous. China's GDP overtook the United Kingdom as the world's fourth-largest economy in 2005, passed Germany as the third-largest in 2007, and in 2010 overstepped Japan as the second-largest after only the United States. Currently, measured by size, China is also the largest exporter in the world, the largest car market, the largest manufacturer, and the largest holder of foreign exchange reserves. It is clear that "the economic rise of China has already led to a multiple redistribution of the global economic power…"[1]

China's rapid economic growth is a direct result of its reform and opening policy. The intent of China's reform is to transform its planned economy into a market economy, while the opening is intended to integrate China into the international economic system. China's accession to the World Trade Organization (WTO) in 2001 facilitated the reform and opening because China's system had to be adjusted to international rules and standards. Integration into the international system provides China grand opportunities to exploit the world market and its own advantages, and the integration process in turn helps China speed up the reform of its economic system and opening of its market for competition.[2]

Globalization is providing an important opportunity for China to transform its potential into reality. China's abundant labor and friendly policy toward foreign direct investment make the country very attractive to outside investors, and it is poised to become an important center market for processing and manufacturing. China's status as a "world factory" has helped it to achieve its fast growth rate and create jobs. And, in turn, because of China's speed, size, and economic model, it has not only been integrated into the world market but has also significantly reshaped the global market structure.

CHINA'S APPROACH TO THE GLOBAL ECONOMIC ORDER

It seems that China's economic rise has come so fast that Beijing has been left in some ways unprepared, and it has brought about so many challenges that need to be dealt with that China is feeling slightly unsure. Although projecting China's long-term future is not easy, it is reasonable to believe that China's rise will continue and that it will become the largest economy, as measured by GDP, by 2030, if not sooner. If emerging economies like India are taken into account, the rise of Asian economic powers represents (metaphorically, if not politically) the whole power shift now taking place in the world from West to East and from the developed countries to developing ones.[3]

This power shift will have great impact on global economic development and governance. China's rise matters not only because of its economic size but also because of its unique political structure. Its political system, dominated by a single party, and its socialist market economy are different from the widespread democratic, capitalist model. A key question revolves around whether China's rise means the end of the Western-dominated system, and whether China will use its rising power and influence to change or redirect the existing global system to its own advantage. China tries hard to assure the world by keeping its rise peaceful and by working to help build a harmonious world. This has not stopped some from suspecting that China has other motives.[4]

> As China becomes a leading player in the international market, it needs to take a more active role in participating in and promoting the process of multilateral negotiations.

By opening its economy to the global system, China has benefited from accessing the world market as well as from understanding the benefits of enhancing its management capacity and improving its own economic system. The world trade system is of great significance to China, because the market both ensures China's exports and creates incentives to change its own policies and practices. China has already gained significantly from its entry into the WTO, which helped it to establish a modern market system quickly and smoothly. Pre-WTO, many worries were expressed in

China, ranging from foreign domination to social instability. But after ten years' experience, the conclusions are all positive. The main positive impacts of WTO accession as summarized recently are: (1) achieving a high economic growth rate; (2) enhancing competitiveness; (3) promoting reform of the economic system; and (4) nurturing the consciousness of opening and rules-based behavior.[5] China will surely continue to support an open, transparent, and rule-based global trade system since China's economy will be more, not less, integrated into the world market even though its export-led growth model will be changed.

Currently, China complains that trade protectionism is on the rise and that its exports are subjected to increasing restrictions. The trade imbalance between China and the United States has become a big problem that leads to trade disputes from time to time. The United States criticizes China for accumulating surpluses by keeping the renminbi undervalued. China argues that the trade imbalance is mainly a result of international production redistribution and especially a regional production network in East Asia that makes China a center for processing and assembly for final export. China realizes that overdependence on exports to support its high economic growth is not sustainable. Already, the external economic environment has changed; demand from developed markets has declined due to the impact of the global financial crisis and difficult recovery. Meanwhile, at home, the internal imbalance of economic development due to the growing gap in income distribution and low level of China's social safety net pose challenges. China is determined to change its export-led growth toward a new model with domestic demand as a driving force. The Twelfth Five Year Plan (2011–2015) set forth a package of policies and measures aimed at creating such a dynamic, new growth engine.[6]

As China becomes a leading player in the international market, it needs to take a more active role in participating in and promoting the process of multilateral negotiations. Revitalizing the Doha Round and initiating a new agenda that facilitates renewed development of the world economy would be a start. For example, with the Doha Round seemingly difficult to conclude, it is critical that China show strong support for and make commitments to liberalization on its own, as well as with other emerging economies, such as Brazil, Russia, and India. It is also possible that China could support the WTO's initiating of functional agendas, such as a multilateral agreement on facilitating the flow of foreign direct investment and harmonizing rules of origin within the regional trade arrangements. China should be a responsible player and active leader in the future multilateral trade system.[7] Nevertheless, some scholars argue that the real constraint on China's leadership role lies in its own industrial structure and trade policy, which means that China has to change its pro-export and restrictive import policy and build a more innovative industrial structure.[8]

THE GOVERNANCE OF INTERNATIONAL FINANCIAL INSTITUTIONS NEEDS RESTRUCTURING

A rising China gives greater influence to and also requires more rights in the international system, which can be reflected in China's interest in participating in reform initiatives within the international system. While it is important to ensure a stable and evolutional reform process of the international system, China also desires to promote structural changes that help to develop a more representative and effective international system. However, some still worry that China may "operate both within and outside the existing international system, seeking to transform that system while at the same time, in effect, sponsoring a new China-centric international system."[9] Actually, although China is a leading economy in size, it will remain a developing country for some time. This dual nature, both as a big economy and as a developing economy, renders China unable to sponsor a new international system.

At the same time, a China-centric system would not serve China's interests, nor would it be accepted by other states. China strongly supports reform of the international system for two major reasons. First, the current international system has shown its weakness and ineffectiveness in dealing with the current crisis and challenges. Second, the existing system is dominated by a few developed countries and does not well reflect changes in the international system, especially the interests and concerns of the developing economies. Thus, while China continues to support the basic framework of the existing international economic system, it will be one of the major players in promoting changes to the system to ensure that its voice and role will be better recognized and respected along with its growing power.

China realizes that the reform of its own system needs to accelerate in order to make its currency convertible and capital market open.

China would like reform to be focused on two major areas. One is to reduce the dominance of the U.S. dollar either by creating a new international reserve currency (super sovereign currency) or moving toward a multi-currency system.[10] However, China realizes that the position of the U.S. dollar as the dominant currency will remain for a long time since no other currency could replace it. So for the immediate future, China would like the U.S. dollar to remain generally stable and would like to press the United States to be responsible in its monetary and macroeconomic policy. The other focus of reform is on the structure of the International Monetary Fund (IMF), with the goal of increasing the power and role of the emerging economies relative to the Western powers.[11] China supports a stronger role for the IMF in the management of global monetary policy and financial markets.

Since the World Bank is an important part of the current international economic system, its reform is also highly desirable. China would like to see real progress of its reform in the following areas: first, to increase the voting power of developing countries significantly, for

example, to at least 50 percent; second, to enhance its role in global governance on clean government and transparency; and third, to play a strong role in promoting sustainable development. China has benefited a lot from its close cooperation with the World Bank since undertaking its own reforms and policy of economic openness. China has great interest in becoming an important player in the World Bank.

China realizes that the reform of its own system needs to accelerate in order to make its currency convertible and capital market open. China now manages to encourage greater use of the renminbi in foreign trade and economic assistance through bilateral agreements and bank loans. The full convertibility of the renminbi will be implemented gradually, along with the liberalization of the capital market. China intends to make the renminbi one of the major currencies by internationalizing it, which would help to reduce the dominance of the U.S. dollar and create a more stable global monetary system.

As globalization is leading to a highly integrated world, the demand for strong and also effective global governance becomes greater. A range of global issues, from economics, environment, climate change, to energy security, need to be handled by collective efforts. For global economic issues, the G7, formed by the major developed economies in the mid-1970s, used to be the key institution to coordinate macroeconomic policies among themselves and provide guidance to the financial market. However, the subprime credit crisis in 2008 and the ensuing global financial and economic crisis have shown that a more representative and broad-based institution is needed to handle the emerging crisis. Thus, the G20, combining both major developed and developing economies, was established as the major cooperative institution on global economic governance. China sees the G20 as a positive step toward developing new international institutions that could reflect the concern and interests of the emerging economies. In 2009, China urged the G20 to make new regulations for financial monitoring. In a speech at the G20 summit in Mexico in June 2012, President Hu Jintao called on the G20 to help the world economy recover and to strengthen the role of the IMF in stabilizing the global economic and financial system and narrowing the gap in world development by providing more assistance to less developed economies, as well as keeping the world market open by opposing trade protectionism and supporting the multilateral system.[12] China has tried hard to play an active role in initiating agendas to prevent the global economic crisis and to reform the international financial system. China supports the institutionalization of the G20, for example, by establishing a secretariat and a mechanism for implementing the decisions made by the leaders.[13]

The five BRICS economies (Brazil, Russia, India, China, and South Africa) are considered as a group to represent the emerging locus of global economic power.[14] As a result of their rise, the weight of emerging economies in the global economy will grow significantly. This in turn will reshape the structure of the global market, since dynamic demand will come from the emerging economies rather than from the developed economies.[15] China actively supports cooperation among BRICS states and considers this forum an important mechanism that could promote cooperation among emerging economies and change the

existing order. Four BRICS summits have been held since 2009. Progress has been made in consulting and coordinating BRICS policies and promoting trade and investment among themselves by encouraging the use of local currencies in their trade and other practical measures. BRICS activities are based on an open spirit, and is good for the five countries and beneficial to the world since cooperation is complementary, not a replacement of the existing international system.[16]

In the future, although China will become a bigger stakeholder in the global system, its effort to strengthen its role in the international economic system and global governance will face many challenges. For example, as mentioned above, domestic constraints will limit China's ability to take a leading role in major international institutions and providing "public goods" through new rule making.[17] Rapid economic and social change mean that China's economic capability and political accountability and social consensus will face new challenges.

> **China must make its market and society more open and further integrate it into the global system.**

Along with China's high economic growth, gaps in income and wealth have widened significantly, which becomes a key source for rising social tension and instability. China will need to manage the turbulence created by the imbalance of rapid economic growth and social redistribution, a rapidly aging population, and the need for a reliable social safety net. China also must deal with the pressures of more dependence on outside resources and the need to ensure their supply.

The government has to take immediate action, including building a national social security network, increasing government spending on public housing, providing more financial support to peripheral areas, and responding to protests against corruption.[18] Building a domestic demand–led economic model also relates directly to the above changes, which requires a long and coherent strategy and comprehensive policy measures.

However, if China is to succeed in its transformation, it must make its market and society more open and further integrate it into the global system. It will continue to gain significantly from that integration. Additionally, as a major economic power, China will have to provide more public goods to the international economic system in the areas of capital and markets, as well as in making the new rules of the system. Nevertheless, as China's capacity to provide the public goods to the international economic system increases, it will continue to rely on the existing public goods provided by major developed economies. Thus, the significance of China's economic rise (together with other emerging economies) for the global system is evolutionary rather than revolutionary.

Of course, it is crucial for China to continue the reform of the economic system by undertaking two major efforts: to continue to reform state-owned enterprises (SOEs) and create a fair competitive environment for the non-state sector;[19] and to change the role of the government by largely reducing its direct involvement and intervention in economic activity.[20]

FREE TRADE AGREEMENTS ARE BENEFICIAL

While China has adopted an open-to-the world policy, it also pays special attention to regional networking and architecture since it has vast and deep interests in its geo-economic and political regions. China has actively participated in and promoted comprehensive regional engagements, from the Asia-Pacific and East Asia to Central Asia and South Asia, aiming to create an environment that promotes economic cooperation, enhanced political trust, and regional security.[21] China's regional strategy combines broad cooperation initiatives on economic as well as political and security issues. This strategy encompasses not only neighboring regions, but also more far-flung regions.[22]

Free trade agreements are among the initiatives that China has actively promoted. China believes that regional institutional arrangements could help to make rules and align interests among their members. For example, free trade agreements, either bilateral or subregional, provide broader frameworks for integration and cooperation. Immediately after joining the WTO, China took the initiative to establish a comprehensive cooperation framework with members of the Association of Southeast Asian Nations (ASEAN), which facilitates trade and other economic relations significantly. China now is the largest market for ASEAN exports, and many programs for cooperation have been conducted, ranging from the Great Mekong Subregion initiative and infrastructure connectivity to capacity building for human development.

China also played a leading role in the East Asia Free Trade Area (EAFTA) feasibility study. However, due to complex factors, consensus seems difficult to achieve on how to establish a single institutional framework in East Asia. Currently, the region is characterized by multilayered frameworks. Free trade agreements include "ASEAN +1"—ASEAN has individual agreements with China, Japan, South Korea, India, Australia, and New Zealand. Dialogue forums include "ASEAN+1," "ASEAN+3" (ASEAN with China, Japan, and South Korea), and "ASEAN+8" (ASEAN with China, Japan, South Korea, India, Australia, New Zealand, the United States, and Russia), known as the East Asia Summit (EAS). ASEAN will initiate an agenda for a Regional Comprehensive Economic Partnership by the end of 2012 that is intended to create a pan-regional economic free trade agreement starting with "ASEAN+6" (excluding the United States and Russia). However, the real negotiation of such a big regional free trade agreement would be very difficult. To some extent, China welcomes multilayered frameworks, since they give it more flexibility and room to maneuver and avoid criticism that would follow if China were seeking to create a China-led regional order.[23]

China has a vast geo-economic, political, and security interest based on complex subregional relations surrounding it. For example, China has also made special efforts to promote economic cooperation in Northeast Asia. A formal trilateral framework between China, Japan, and South Korea started in 2008, and a secretariat was created in 2010, which is considered an important step forward. The three countries, notwithstanding ongoing political and security problems, have expressed interest in negotiating a trilateral free trade agreement

in a timely manner.[24] Considering that Japan joined the Trans-Pacific Partnership, which excludes China, and that South Korea signed a free trade agreement with the United States, China sees this interest in trilateral cooperation as significant.

The regional financial architecture is also an important concern for China. Although China rejected a Japanese initiative on an Asia Monetary Fund in 1997, it actively initiated the Chiang Mai Initiative framework beginning with the bilateral currency swap arrangements in 2003. Based on China's proposal, ASEAN10+3 countries have agreed to create a large regional reserve fund (currently $120 billion), and an independent unit known as AMRO was established in 2011 for regional economic research and monitoring in East Asia. AMRO intends to play a role in macroeconomic research, monitoring and providing proposals to ASEAN+3 leaders for policymaking.[25] However, the regional financial scheme is more like a supplement to the global system than a substitute, because of its close links with the IMF.

Concerning the Asia-Pacific region, China has vital interests in keeping a close and cooperative relationship with the United States. China sees the Asia-Pacific Economic Cooperation (APEC) as a useful platform to engage the United States. However, China's new concern is about the U.S.-led Trans-Pacific Partnership, which is labeled as a high-level free trade agreement for the twenty-first century and which changes APEC's approach and framework. The partnership covers broad new issues, ranging from intellectual property rights, to labor, environment, and state-owned enterprises, which puts a lot of pressure on China. The question remains how to integrate the Asia-Pacific region if China is not part of the Trans-Pacific Partnership process and if the United States is not part of the East Asia Free Trade Agreement process. Far more desirable would be a single free trade agreement based either on the Trans-Pacific Partnership or on integrating the partnership and the East Asia Free Trade Agreement.

CHINA'S FUTURE PRIORITIES

A global market and an international economic system are crucial to the future of China. The country's economic success has relied heavily on an open and supportive global environment. Although China has committed to changing its export-oriented growth model, to creating stronger internal demand, and to making special efforts on regional arrangements, its interest in the global market and international economic system will not be reduced because its future economic dynamism is closely linked to the global market environment. From this perspective, China will not let regional arrangements be used to override the multilateral framework.

The challenge for the multilateral system is the stagnation of the Doha Development Agenda. There seems to be no consensus among WTO members on how to regain momentum on this issue and make progress. China proposed reforms to the WTO system in the

areas of management, dispute settlement, and anti-dumping, and it supports the effort to resume the Doha Round with a restructured agenda. China's proposals are intended to make WTO more efficient, not to change the WTO system.[26]

Moreover, China's engagement in global governance will be deeper, as will its involvement in seeking reform of the global trade, financial, and monetary systems. In sum, a rising China has brought about significant changes and challenges. Although China is already an integrated part of the international economic system, it is understandable that it, together with other emerging economic powers, requires further reform and change of the system. In this regard, the current Western-dominated (American, in particular) international economic system needs to be significantly restructured, hopefully in a cooperative, gradual, and peaceful way.[27]

NOTES

1. Martin Jacques, *When China Rules the World: The Rise of the Middle Kingdom and the End of the Western World* (London: Allen Lane, 2009), 192.

2. Yong Deng and Thomas G. Moore, "China Views Globalization: Toward a New Great-Power Politics?" *Washington Quarterly* 27, no. 3 (Summer 2004): 117–36; Lee Branstetter and Nicholas Lardy, "China's Embrace of Globalization," National Bureau of Economic Research Working Paper Series, no. 12373, July 2006, www.nber.org/papers/w12373.pdf.

3. Daniel Burstein and Arne de Keijzer, *Big Dragon: China's Future: What It Means for Business, the Economy, and the Global Order* (New York: Simon & Schuster, 1999), 97.

4. As some have argued that the key is the nagging question of whether China accepts the basic legitimacy of the current rules of international organizations and norms and whether it will seek to drastically alter them once admitted. See Ezra F. Vogel, ed., *Living with China: U.S.-China Relations in the Twenty–First Century* (New York: W. W. Norton & Company, 1997), 131–32.

5. Wang Luolin, ed., *China: Ten Years After WTO Accession* (Beijing: China Development Press, Beijing, 2012), 8–10.

6. By joining the WTO, China actually gave up its call for "a new international economic order" since it became part of the current multilateral trade system and benefits from the system. Zhang Yunling, ed., *China and World: New Change, New Understanding, and New Identification* (Beijing: China Social Sciences Press, 2011), 132.

7. Songhong, "China and Multilateral Trade System," in Zhang, *China and World*, 130.

8. Wang, *China: Ten Years After*, 367.

9. Jacques, *When China Rules the World*.

10. It may be the U.S. dollar, the euro, or the RMB.

11. The governor of China's Central Bank has long called for an independent international reserve unit. See Zhou Xiaochuan, "Thinking of Reform of International Monetary System," *Contemporary Economy*, no. 4 (2009): 1.

12. "Hu Jintao Delivers Keynote Speech to the Seventh Leaders' Summit of the G20," Ministry of Foreign Affairs of the People's Republic of China, June 20, 2012, www.fmprc.gov.cn/eng/zxxx/t944713.htm.

13. Fang Jin, "G20 and China's Participation," in Zhang, *China and World*, 98.

14. Currently, the major emerging economies collectively account for about half of global growth. Justin Yifu Lin and Mansoor Dailami, "The Coming Multipolar World Economy: Is the Developed World Prepared?" *International Economy* (Summer 2011): 30–31.

15. World Bank, *Securing the Present, Shaping the Future: East Asia and Pacific Economic Update 2011*, vol. 1 (Washington, D.C.: World Bank, 2011).

16. The proposal for establishing a BRICS bank was also made and welcomed by all members. See Hu Jintao's speech at the BRICS summit in New Delhi (Chinese), http://news.mod.gov.cn/headlines/2012-03/30/content_4354958.htm.

17. As observed, "China will be constrained for decades by its relentless focus on the huge and knotty problems it faces domestically," in Burstein and Keijzer, *Big Dragon*, 27.

18. Corruption is considered one of the major factors behind the worsening wealth gap. Some argued the root of economic corruption is corruption of power; thus, the key is to undertake political reform and contain power corruption. Yang Haikun, "Power Must Be Under the Sun," speech at Chinese People's Political Consultative Conference in Beijing, 2012.

19. Although most SOEs have become shareholding companies, they still dominate the key sectors in the Chinese economy. Thus, the reform will follow two major directions: one is to reduce the share and the domination of SOEs in the economy, while the other is to make more areas open to the non-state investor.

20. The debate is still going on about the real feature of the socialist market economy. Some argue that the key feature is a market system with equal rights of SOEs and non-state business, while others insist that it is necessary to keep SOEs' dominance and strong government management and intervention. I believe that the main direction for China's future reform is market-oriented.

21. For example, APEC in the Asia-Pacific, Shanghai Cooperation Organization with Russia and Central Asia and "ASEAN+" frameworks in East Asia. Aoyama Rumi, Kokubun Ryosei, Jin Xi-De, Zhang Liping, Lu Jianren, and Zhang Yunling, eds., *Making New Partnership: A Rising China and Its Neighbors* (Beijing: Social Sciences Academic Press, 2007), 14.

22. Zhang Yunling, *Rising China and World Order* (Singapore: World Science, 2010), 25.

23. Zhang Yunling, *China and Asian Regionalism* (Singapore: World Science, 2011), 4.

24. Three countries have concluded the negotiation on an agreement for investment liberalization, and it will be signed soon. The process for a comprehensive free trade agreement negotiation may be announced in the near future.

25. The size of this fund will soon be doubled. This pool fund is still collectively committed; it is not yet an independent fund. China has the same share as Japan (more than Japan if Hong Kong is included). The first director of AMRO is from China and the next one will be from Japan. Wu Liangcheng, "The Establishment of AMRO," *Renmin Daily*, May 6, 2011.

26. Liu Hongsong, "China's proposals on global governance—in the case of WTO Doha Round and G20, a Global Perspective" (Chinese), September 10, 2012, no. 20, 15–16.

27. Wang Yong and Liu Wei, "The Rise of New Powers and Reform of Global Economic Governance," *China Strategic Review*, no. 3 (2012): 40.

INTERNATIONAL ECONOMIC SYSTEM

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INDIA'S PERCEPTIONS OF GEOPOLITICAL AND ECONOMIC CHALLENGES

The shift in the center of economic gravity from the West to the East is now well established. But perhaps a more important feature of the current global economic situation is that for the first time in more than two centuries, the contribution of developing economies to global GDP growth is greater than that of Organization for Economic Cooperation and Development (OECD) economies. This surge in the share in global GDP of non-OECD economies is led by twelve large emerging economies, of which the most prominent are China, India, Brazil, Turkey, Indonesia, and South Africa. China and India in particular represent a major and sharply rising influence in the global economy, with their combined population of about 2.6 billion (37 percent of world population), GDP of nearly $9 trillion (13 percent of world GDP) and GDP growth rates that have averaged 9 percent (China) and 7 percent (India) over the past decade. It is therefore important to understand the Chinese and Indian perspectives on issues facing the international economic system.

Moreover, the rising economic influence of these two Asian giant economies leads them and others to expect that their influence should be increasingly represented in the global economic negotiations and to a lesser extent in the geo-strategic sphere. The composition of the "Quad" (the United States, the European Union, Canada, and Japan), which has traditionally been the effective negotiating forum in the World Trade Organization (WTO), has

been changed with Canada's and Japan's replacement by China and India. The emergence of the G20 summit process is another sign of their rising clout. They are now undisputed members of the high table of global economic governance.

It is important to recognize that China is far ahead of India in the economic league. China's officially declared GDP at $7.3 trillion in nominal terms and $11.3 trillion in purchasing power parity (PPP) terms is about three times that of India ($1.7 trillion in nominal and $4.5 trillion in PPP terms). China's exports at more than $1.5 trillion are nearly five times that of India, and its imports are almost four times those of India. China's global economic footprint is consequently much bigger than India's. Also, China's defense budget, at least what is officially declared, is almost three times that of India.

Despite these differences, India does not consider the globalization drive that seems to be adding much more muscle to its neighbor a challenge for itself. China's remarkable achievement in sustaining very high rates of growth for nearly three decades and massively reducing poverty has been based on increasing integration with an open global economic order. There is a lesson here for India that it should stick with the open economic order rather than see it as a challenge or a threat.

Given Chinese economic performance over the past three decades, it can rightfully expect and indeed demand to be given a seat on the high table of global economic and political governance. India's turn will come when it realizes its undeniable potential. Opening up the Indian economy and its integration with the rest of the world has yielded several benefits. India should continue on the path toward calibrated globalization.

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However, India does have a claim to special recognition from the global community. This derives from its potential power of example. As India achieves sustained rapid growth in the next few decades and pulls its vast population out of poverty and affords it a reasonable level of living, its experience could be emulated by other developing economies. The attractiveness lies in India's demonstrated ability to achieve economic objectives while retaining the political freedoms and rights for its people and respecting and nurturing its mind-boggling diversity and plurality. The power of this example will be no less, and indeed even stronger, than that of India having achieved its political freedom from colonial rule without a violent revolution and with minimal loss of human life, along with maintaining a working relationship with its former colonial rulers.

The enormity of this achievement, when realized by India, can be better appreciated if one recognizes that the ongoing developments in India represent a unique experiment, never before attempted anywhere in the world. India is undertaking three transitions simultaneously in the economic, social, and political realms. In economic terms, the country is making the transition from a predominantly backward agrarian economy to a modern industrialized and service-sector–dominated economy. In social terms, a diverse,

pluralistic, and traditionally a highly structured and segmented society is undergoing a transition of enormous magnitude. Following the constitutional directive, the Indian state gives equal support to any and all religions; it provides equal protection to all minorities and has an active policy of positive discrimination to uplift the most deprived sections of the population to try to undo centuries of social exploitation and oppression. There is an ongoing process of welding a multicultural, multilingual, and multireligious society into a single, united community.

In political terms, India gave itself a constitution that guaranteed equal political rights and freedoms to its citizens, irrespective of social, religious, or economic status. There are few, if any, examples of a country adopting a parliamentary democracy based on universal franchise at the same level of per capita income and social diversity as India. The Indian state, supported by the people, has successfully thwarted several attempts at undoing this political system, and has nurtured its democratic institutions to a reasonable level of probity, integrity, and autonomy. In fact, a woman hailing from the Dalit caste (the lowest social class in society) was elected chief minister (akin to a governor in the United States) of the most populous province in the country on three different occasions. This political transition to equality is a major achievement. And combined with the country's transition to a modern economy and move to becoming a multireligious and multicultural society, it makes India a fascinating example well worth emulating by others. Astute observers would recognize that even if India's economic transition has lagged behind that of China or the other Asian Tigers, which have pursued the economic transition with a single-minded focus, its achievements are still comparable, since the Asian Tigers and China have yet to transform their societies and institutions to more open and democratic ones.

The inherent complexity of these three simultaneous transitions has several implications for India's engagement with the global community. First, just like in the United States, internal and domestic considerations dominate any global interaction. Second, India's stand on any given economic issue cannot be determined without considering its impact on political and social aspects, which have their own dynamic. Third, it takes much longer and is far more difficult in India to achieve consensus on any issue that will allow its leadership to take a given stand in any global negotiation. This often makes it exasperating for India's negotiating partners, but it is as unavoidable as the EU's efforts to arrive at convergent positions. Fourth and finally, because each transition has an impact on the other, there is no clear linear path that can be pursued by the leadership on any issue. So progress on economic reforms and liberalization often looks to be halting and even regressing, but the change in short-term emphasis is required to accommodate other interests in order to maintain a long-term trajectory. It is hoped that this long digression will provide the necessary context to understand the responses to the various questions that are taken up below.

INDIA'S APPROACH TO THE GLOBAL ECONOMIC ORDER

India has always been a free market economy. Even during the three decades after independence that were characterized by socialist style central planning, the private sector was undermined but not eliminated. This is in contrast to other countries, where private entrepreneurship was totally decimated. The central and dominant role of the market and private enterprise was reinstated after the 1991 reforms. With strong "market economy" credentials at home, India quite naturally supports a free-market-oriented structure at the global level. India gave up its demand for special and differential treatment and has fully adopted the norms and working practices of the multilateral trading regime under the aegis of the WTO. In our view, it can be unequivocally said that India is and will remain committed to a free-market-based and liberal global economic order.

As for the role and structure of WTO, the popular view in India is that there cannot be a substitute for multilateral trade negotiations. India supports the WTO and the multilateral framework agreement for trade promotion. However, at present, it seems that debates over procedures and legal positions dominate consultations when instead the international community should concentrate on pushing forward the development agenda. India is committed to the Doha Round and wants to bring it to conclusion at the earliest possible moment. It is only in the absence of any positive movement toward that goal that India is engaging with other countries and regions for bilateral or regional economic cooperation agreements.

In our view, it is important that institutions that underpin the smooth working of the multilateral liberal global trading order are strengthened and certainly not undermined. There is a clear danger today that advanced economies, buffeted by the aftermath of the 2008 crisis, could work to undermine these institutions with the objective of safeguarding their individual national interests. Some of this has already happened in the form of non-tariff barriers and new forms of government support to domestic industry in order to mitigate the economic and social impacts of the downturn.

In this context two steps have to be taken. First, the tendency for "disguised protectionism" has to strongly resisted and defeated. At the same time, the ongoing trend for bilateral and regional trade agreements, which so far had been seen to be supportive of the multilateral trading order, could now begin to undermine it. It is important therefore to give the WTO some role in monitoring and supervising these free trade agreements to ensure that they are not diverting trade. Second, it is time that emerging economies, which have a larger stake in preserving the liberal global economic order, had a greater role in the management of these institutions. This would necessarily imply that emerging economies such as Brazil, India, and China agree to accept greater responsibility for maintaining the liberal order.

This implies two changes in their behavior. First, they will have to give up the "us versus them" or the north versus south attitude that until now has largely informed their negotiating positions. Instead, they have to see themselves as part of the group that is responsible

for strengthening these institutions. Second, these large emerging economies are perceived by other developing countries as "the north within the south." Consequently, they now have to make some concessions for other developing or less developed economies and afford them greater market access. India's recent move to provide quota- and tariff-free access to imports from the least developed economies in South Asia is a step in this direction. Further down the road, this would also imply that negotiations between advanced OECD and large emerging economies would be based on a strictly quid pro quo basis and not on any sense of special treatment.

An important issue is the role of non-market economies in the free-market-based system. There is a clear danger that activities of enterprises in which the ownership is blurred and which have access to government fiscal resources could distort the working of the free-market-based global economic order. Some norms have to be laid down for such enterprises to create a level playing field for global competition. The distinction between public and private ownership will have to be sharpened, and operating norms defined differently for either set. The role of the government in acquiring intellectual property and other assets in other countries and then making them available for its own enterprises will also have to be reviewed and regulated. The short point is that the present multilateral liberal trading order was based on the premise that the major actors will be private enterprises. With the emergence of state-owned capitalist enterprises, this premise is no longer valid.

THE GOVERNANCE OF INTERNATIONAL FINANCIAL INSTITUTIONS NEEDS RESTRUCTURING

Until recently, just prior to the Lehman Brothers crisis, with private financial flows having overtaken official flows, there was growing skepticism about the continued role and relevance of international financial institutions such as the World Bank and the IMF. The global recession triggered by the Lehman collapse in September 2008, and the continued fragility of the global economy, has radically changed the perception. It is now increasingly accepted that these institutions have an important role to play in ensuring global macroeconomic balances and financial stability in an increasingly integrated global economy. This has brought to the fore the issue of improving the governance of such institutions and enhancing their legitimacy and credibility among their members.

The issue of the larger role of emerging economies in the governance of the World Bank, IMF, and other institutions should now be beyond debate and discussion. This is especially true in light of the convergence in the views on this issue of the G20 leaders, as reflected in their successive communiqués issued after their summits. India supports this view. A start has been made in this direction with quota reforms being proposed in the IMF, and it is important that these changes be introduced in a timely manner. The slow progress witnessed

to date is evidently due to the reluctance of European countries to give up their positions on the board. This process needs to be accelerated and be made an ongoing process to ensure the IMF's continued legitimacy. The formula for the allocation of quotas in the IMF, the World Bank, and the regional development banks such as the Asian Development Bank and African Development Bank should be so devised that apart from the country's shares of world economic output and trade, it also includes the size of the population and the average rate of growth of GDP of the previous five years. The inclusion of these two variables will make the formula more dynamic, as it will reflect the future potential of the member countries and will make the formula forward-looking rather than predominantly influenced by historical circumstances.

Likewise, it is important that heads of such institutions be chosen in a transparent manner with merit alone as the criterion for selection. It is surely time to revisit the unwritten rule that the World Bank is headed by an American and IMF by a European.

There are two contrasting views in India on the potential role of the multilateral development banks such as the World Bank and regional banks. One view, as expressed by the Indian finance minister in 2011, is for the World Bank and others to play a more proactive role in increasing the flow of development finance, especially to middle-income countries. To achieve this, the World Bank needs to evolve innovative lending mechanisms for meeting the needs of development finance in areas such as climate change, poverty reduction, food supply, safety nets, and universal access to energy. For this, the World Bank would need to beef up its lending capacity by increasing its capital base.

> **The combination of private sector–led rapid growth and improved delivery of public services alone will ensure that India achieves rapid and inclusive growth whose benefits are widespread.**

The alternate view is for the institutions to focus increasingly on the development financing needs of the least developed, fragile, post-conflict, and vulnerable economies. This will imply that middle-income countries such as India and China should now be prepared to graduate to non-borrowing members of these institutions. These countries represent the "north within the south" and should be prepared to accept greater responsibilities. Moreover, this will require middle-income economies to implement policies that will increase their attractiveness as destinations for private capital flows. The voluntary abdication of their borrowing rights from the international financial institutions would also reinforce the claim of these large emerging economies for greater share in the governance of these institutions. Increasing the headroom for lending by the institutions will greatly benefit smaller and less developed economies that are now unable to attract private capital at affordable borrowing rates.

AN OPEN TRADING SYSTEM INTERNATIONALLY VERSUS STATE CONTROLS DOMESTICALLY

While the role of the private sector in the Indian economy has grown since 1991, it is still denied the spaces that are available to it in most advanced market-based economies. The government continues to have a presence in sectors and activities where government ownership is neither necessary nor indeed desirable. Examples of such sectors are hotels, civil aviation, steel making, mining, banking, and insurance, to name only a few. It is important that government presence and ownership be eliminated in sectors where it is neither justified by the presence of a natural monopoly nor by the need to serve those who would normally be excluded by the market. This should be done as quickly as possible in order to enable the government to focus on sectors such as public education and health, security and urban infrastructure, civic amenities, and rural infrastructure, where delivery of public goods and services has been deteriorating over time and threatens to break down in short time.

In fact, public-private partnerships should be aggressively pursued in many of these areas, and the government should leverage such tools as the "viability gap funding" to support private-sector participation. By bringing in the private sector for delivering such services, the government will be able to infuse dynamism into the operational framework of large public-sector programs and get better results while still retaining the functional autonomy to decide on the goals and targets.

This should be addressed sooner rather than later for achieving efficiency and higher GDP growth and to ensure that there is a marked and much-needed improvement in the delivery of public goods and services. The combination of private-sector-led rapid growth and improved delivery of public services alone will ensure that India achieves rapid and inclusive growth whose benefits are widespread.

By and large, India follows an open trading system. The industry or services sectors are driven by market forces. India remains committed to its obligations under the WTO. Even when some of its industries are losing competitiveness, India has not gone back on its commitments to raise tariff levels or introduce fresh non-tariff barriers. Quite the opposite, since 2007, India has given quota- and tariff-free access to its domestic market to the least developed economies in South Asia and Africa. Any increase in tariffs during the past few years has been aimed entirely at restraining domestic demand for gold or encouraging conservation of hydrocarbons. It is true that at some point the benefits that would follow from greater integration with the global economy will start diminishing at the margin. This stage is still a long way off, at least for India, because its share of global exports is less than 2 percent.

Finally, while the opening up of the current account has enjoyed widespread support in the domestic constituency, there are some apprehensions with regard to full-scale capital account convertibility. However, the Indian rupee is nearly fully convertible for foreign investors and non-resident Indians, and it floats freely based on market conditions.

It is now universally accepted and also endorsed by the IMF and the Bank for International Settlements that full-scale capital account convertibility, if adopted prematurely, could result in instability in the exchange market and violent fluctuations in the value of the domestic currency. Indian financial markets, particularly the currency market, are not very deep, and bunching of transactions or sudden inflows or outflows of funds could destabilize the financial system with grave implications for macroeconomic stability. India has recognized, perhaps ahead of many others, that capital account convertibility is not a panacea for developing and emerging economies and has to be adopted with caution and after due preparation.

India's view is that the U.S. dollar is working as the global vehicle currency in a fairly robust manner and that there is no immediate need for a change. While the financial and economic situation in the United States is a matter of significant concern for the global economy, it does not imply a need for a change at this stage, especially one that could destabilize a functioning system.

FREE TRADE AGREEMENTS ARE BENEFICIAL

The enormous gains in the global economy during the past six decades have been premised upon the multilateral trading regime that has been put in place, initially under the aegis of the General Agreement on Tariffs and Trade and then the WTO. There is no substitute for it. Free trade agreements, whether bilateral or regional, have helped to deepen and widen the benefits of an open, liberal, and multilateral trading global order. The two are complementary. The argument that free trade agreements will or can replace the WTO-based multilateral order is fallacious. And any such agreement that is seen to work against the multilateral order should be discouraged. India's stand on the primacy of the multilateral global trading order is unambiguous and consistent.

The Doha Round of multilateral trade negotiation was launched in 2001 with the objective of extending the liberal trading regime to areas and sectors that have largely remained out of the international community's scope. The Doha Round is now stuck, with no progress in sight. This should not take away the importance of extending the liberal order into two new areas: agriculture and the temporary movement of workers across national borders. Agriculture products are eminently suited for free global trade. However, agriculture still remains one of the least traded sectors. This needs to change for countries to achieve their true comparative advantage. Similarly, unless the impediments against natural movement of workers across national borders are removed—until the conditions for movement of labor are the same as for other factors of production like capital and technology—the fullest benefits of a multilateral trading order will not be realized.

KEY GEOPOLITICAL CHALLENGES

An open international economic system faces three important challenges. First to ensure that an open, liberal, and market-based global economic order results in the convergence that is its stated goal and promise. The second challenge is for advanced economies to make the space on the high table of global governance for emerging economies that are growing rapidly and acquiring a greater share of the global economy. Also, as emerging economies see an increase in their economic size and become more integrated into international trade and finance, it will be imperative for advanced economies to coordinate their monetary and macro-prudential policies with large emerging economies. Any lack of coordination here will lead to worse outcomes for everyone. The third challenge is for all members of the WTO to refrain from adopting protectionist measures even when faced with an economic slowdown. This is important for ensuring that a vicious cycle of competitive protectionism does not take place that could well threaten the fundamentals of the liberal global order. That could have unacceptable consequences.

THE GLOBAL NONPROLIFERATION SYSTEM

1   What is your country's assessment of the current nuclear nonproliferation system as embodied by the Nuclear Non-Proliferation Treaty (NPT) and the NPT regime? Has the NPT system advanced the global objective of preventing nuclear proliferation?

   In your country's perception, what changes should be made to the current NPT system to advance the larger goals of nonproliferation? Alternatively, how could the existing system be better enforced?

2   How does your country perceive nuclear states that reside outside the NPT system?

   How does your country believe that nonsignatories such as India, Pakistan, and Israel should be treated by the NPT regime?

   How should emerging NPT challengers such as North Korea and Iran be treated by the international system? How does your country balance national interests and international obligations in dealing with these two cases?

3   Given the record of the last fifty years and the global security challenges on the horizon, what is your assessment of the durability and the effectiveness of the NPT system?

   Will the system be able to prevent the rise of new nuclear states in the future?

   Which states are most likely to seek nuclear weapons in the future?

4   What is your country's perception of the U.S.-India civilian nuclear cooperation agreement in the context of the NPT? Should this agreement become the model for integrating the other two nonsignatories, Pakistan and Israel, into the NPT?

5   In the perception of your country, what is the role of the international community in securing nuclear materials and weapons, and in mitigating the threat of nuclear terrorism? Is it permissible to violate the principle of state sovereignty in the case of threats from loose nuclear materials or weapons?

GLOBAL NONPROLIFERATION SYSTEM

LI BIN

INTRODUCTION

The global nuclear nonproliferation system is a combination of international treaties, organizations, regimes, forums, commitments, arrangements, practices, and norms aimed at curbing nuclear proliferation of states and non-state actors. The Non-Proliferation Treaty (NPT) plays a central role in the system. Some other international treaties are also important elements in the system by constraining physical development of nuclear weapons (for example, the various nuclear test ban treaties) or by politically discouraging countries from acquiring nuclear weapons (for example, the agreements on nuclear-weapon-free zones). In the system, some international organizations, such as the International Atomic Energy Agency (IAEA), implement nonproliferation arrangements, while others, such as the Conference on Disarmament (CD), provide forums for developing new nonproliferation regimes.[1] Some international nonproliferation practices and norms are less formal than other treaties and organizations, but they play supplementary roles in nuclear nonproliferation. For example, some partners of the Missile Technology Control Regime (MTCR) exercise constraints over missile development in their countries even though they are not formally required by the regime.[2] The global nuclear nonproliferation system discussed in the paper includes both formal international agreements and informal practice and norms. Some international arrangements aimed at blocking the nuclear proliferation of non-state actors are becoming an increasingly important part of the system today.

China's position on global nuclear nonproliferation has evolved since it opened its door to the outside world in 1978. The views of the Chinese elite and the public have contributed to the evolution. This essay explains the author's observations about the views of the Chinese elite, the public, and the government on the global nonproliferation system. It examines the assessments of these players about the nature and effectiveness of the system and its need for improvement. It also relates their positions on the emerging nuclear armed states.

The nuclear nonproliferation policy of the Chinese government relies on the input of the elite and the public and represents a compromise of views. Some Chinese statements are more of an echo of China's domestic statements than responses to international events. The government's policy can be found in its official statements, white papers, and working papers and in the speeches of its leaders.

> **Global governance may be a durable solution for nuclear nonproliferation in the long run, but it may not be efficient in solving immediate problems.**

The elite are professionals working on nuclear nonproliferation-related issues. Some of them were trained in and are working on international studies; some are scientists and engineers; and some are economic experts. Their perspectives on nuclear energy and proliferation may be very different, based on their training, preferences, and positions.

The views of the public on nuclear proliferation are more complicated and are now well expressed on the Internet. The views expressed by intellectuals who are not working on nuclear nonproliferation issues are regarded as part of the public views in this paper in that their positions rely more on their general sense than their professional training.

THE VIEWS OF THE ELITE

Among the Chinese elite, the views of international studies experts are the most transparent because they publish articles to explain their positions and reasons. The two schools relevant to nuclear nonproliferation issues may be roughly referred to as liberalism and realism. The liberal experts suggest democratization in international society and believe that nuclear nonproliferation may be curbed by better global governance.[3] "Democratization," as they define it, means that all countries, no matter how big or small, should enjoy equal rights in international affairs.[4]

The history of the liberalist school may be traced back to the end of the Cultural Revolution. According to the idea of democratization in international society, discrimination or double standards in the global nuclear nonproliferation system is inappropriate. Many Chinese scholars felt ashamed of the discrimination in nuclear nonproliferation and many

still feel that way today.[5] More and more scholars are now accepting the discrimination as a temporarily necessity, but they want the nonproliferation measures to be arranged legally rather than arbitrarily monopolized by big powers. They believe that a double standard exacerbates the situation of proliferation rather than relieving it, while global governance of nuclear nonproliferation is more acceptable and durable.[6] On global governance, the liberalist school prefers universality, equality, legitimacy, and strict rules. According to this preference, universal multilateral treaties, such as the NPT, are better than the small groups of suppliers in coordinating their export control; nuclear-weapon states should provide negative security assurance to non-nuclear-weapon states and promise to eventually eliminate their nuclear weapons; the Proliferation Security Initiative (PSI), which may be contradictory to other international law on navigation, is problematic; and the Fissile Material Cut-off Treaty should include rules of verification.

The liberalists are enthusiastic about the progress of global efforts in preventing nuclear proliferation to non-state actors which always lead to formal international agreements.[7]

The liberal experts in China wish to enlarge the global nuclear nonproliferation system and solidify its legal basis. For this reason, they consider emerging nuclear armed states to be troublemakers. In their view, the withdrawal of North Korea from the NPT hurts the universality of the treaty;[8] the U.S.-Indian nuclear deal is counter to the universal principle of full-scope IAEA safeguards;[9] and the U.S. protection of Israel's nuclear status deepens the discrimination in the nonproliferation system.[10] Their feelings on the Iranian nuclear issue are very complicated. On the one hand, they do not want to see Iran make any progress toward developing nuclear weapons; on the other hand, they do not want to weaken the principle of nuclear energy development and the IAEA's authority in solving the issue.[11] The dilemma seems to be fundamental in the liberal school. Global governance may be a durable solution for nuclear nonproliferation in the long run, but it may not be efficient in solving immediate problems. The liberal experts do not have a good suggestion as to how to reach a compromise between durability and efficiency in nuclear nonproliferation.

The realist school in China has a somewhat shorter history than the liberalist school. It began to emerge in the late 1980s and early 1990s. The realist experts perceive the incentives of countries in nuclear proliferation and nonproliferation according to their national security concerns.[12] Countries that worry about their security may want to have nuclear weapons. Some other countries that have nuclear weapons, do not feel insecure, are already under the nuclear umbrella of other countries, and those that lack nuclear development capability do not want to see emerging nuclear armed states. Nuclear proliferation, for the realists, has occurred as a result of a security dilemma. So they believe that the mitigation of the security dilemma is a key to curbing nuclear proliferation. From their perspective, big military powers—especially nuclear-weapon states—should provide negative security assurance to non-nuclear-weapon states that their development of nuclear weapons was unnecessary. They suggest incorporating more negative security assurance and peace solutions in the global and regional nuclear nonproliferation arrangements.

The realist experts feel less uncomfortable than the liberalists with the discriminatory nature of the NPT and other nonproliferation arrangements, regarding them as a result of the balance of power. They acknowledge that the global nuclear nonproliferation system as a whole benefits China, and urge the government to participate more in the global nonproliferation system.[13]

The realist experts regard the NPT and the global nonproliferation system as quite effective in such an insecure world. The improvement of the effectiveness of the global nonproliferation system, they believe, lies in the improvement of the general world security situation.[14]

Like the liberalists, the realist experts worry about emerging nuclear armed states, but for different reasons. They regard the U.S.-India nuclear deal as part of a U.S. strategy to counterbalance China.[15] They worry about North Korea's nuclear-weapons program because they believe that the program is disturbing regional stability and that it poses a direct security threat to China.[16]

The realist school has growing influence in China and is famous for its sharp insights. However, traditional Chinese philosophies do not appreciate sharp insights. Unlike in the international relations circle in the United States, the two schools of thought in China are not explicitly divided. Sometimes a scholar absorbs useful conclusions from both.

> **Chinese nuclear scientists face a dilemma over their love of civilian nuclear energy and their worry about the proliferation of nuclear-weapons technology.**

In general, the international studies experts in China are good at philosophical and principle discussions but are not good at programmatic approaches. This reduces their influence in the domestic and international policymaking process when it comes to nuclear nonproliferation.

Nuclear scientists and engineers are another group of experts in China who deal with nuclear nonproliferation issues. Most of them do not have a background in political science training, and their nonproliferation knowledge has come mostly from their work experience.

Chinese nuclear scientists had enjoyed great respect from the Chinese people until the 2011 nuclear accident in Japan. Nuclear scientists in China consider that science is sacred and believe that the development of nuclear energy is beneficial to all people. They love the principle of peaceful use of nuclear energy and regard the pillars of nuclear nonproliferation and nuclear energy as equally important. In practice, they accept and support nonproliferation arrangements in the global system but feel uncomfortable with sacrificing nuclear energy for the sake of nuclear nonproliferation. They like scientific solutions to proliferation concerns, for example, replacement of highly enriched uranium in research reactors with low enriched uranium.

The Chinese nuclear scientists in general are silent on the political dimension of nuclear nonproliferation issues in public domestic debates, but they are active in engaging with their

foreign peers on practical nonproliferation issues. They believe that they share a universal scientific language with all scientists of the world regardless of whether they agree with each other on political positions. China joined the IAEA in 1984, and an important reason for doing so was Chinese scientists' enthusiasm to engage with their colleagues in international organizations. The good communication between the Chinese and foreign scientists is very useful for both sides. For example, the Chinese scientists shared their assessment of North Korea's nuclear-weapon capability with the American scientists, and it helped the American scientists understand the issue.[17] The Chinese scientists also learned a great deal from their foreign colleagues about the progress of global nuclear nonproliferation. Based on their knowledge of the world, Chinese nuclear scientists were ahead of the Chinese political experts in making suggestions to the government to join the NPT, to prepare for the negotiations of the Comprehensive Test Ban Treaty,[18] and to develop international nuclear security cooperation.[19]

The scientists are very practical in developing nonproliferation arrangements, especially in integrating the Chinese nonproliferation arrangements into the global system. For example, when the scientists introduced the arrangement into China, they translated the IAEA safeguard into "保障" (guarantee) instead of "监督" (monitoring) to reduce the sensitivity of the words.

The Chinese scientists believe that scientific development brings both challenges and opportunities to global nuclear nonproliferation. It is like a game of cat and mouse. New technology may provide the proliferators new chances to develop their nuclear-weapons programs, while at the same time new technical tools may be applied by the global nonproliferation system to detect and stop proliferation. The Chinese scientists are very active in discussing verification technology with their foreign peers on all agendas, including those to which the Chinese government has not yet formally or fully committed.

The Chinese nuclear scientists face a dilemma over their love of civilian nuclear energy and their worry about the proliferation of nuclear-weapons technology. For example, some Chinese scientists praised the progress of India's plutonium program.[20]

Chinese economists are another group of experts involved in nonproliferation issues, and they became important in policymaking after China launched its reform and openness policy in 1978.

Usually economic experts do not speak directly on nonproliferation issues. Their way to influence China's nonproliferation policy is to absorb the nonproliferation topics into the economic paradigms. For example, the reason the economic experts oppose nuclear proliferation is that they believe proliferation creates regional tension and disturbs China's international economic cooperation. The reason they oppose an arms race likewise is seen through an economic lens: such a race may exhaust China's economic resources.

The success of China's economic development encourages the economic experts to apply their economic models to security issues. They suggest that China join more global nonproliferation regimes because Chinese participation in the global economic system has brought

great benefits to the country.[21] They also expect that North Korea will open its economy to the global system and that this economic openness could eventually promote the dismantlement of its nuclear-weapons program.[22]

Usually, the experts of different backgrounds and different schools do not focus their debates on specific nonproliferation issues. This is partially because they take very different research approaches and partially because the Chinese traditional "mean" philosophy does not encourage sharp debates. As a result, it is not possible to see how different schools offer different prescriptions to specific nonproliferation issues.

THE VIEWS OF THE PUBLIC

The Chinese public began to express its opinions on national security issues on the Internet during the Taiwan Strait crisis in 1995–1996. Since then, the public's influence has been growing significantly. Not surprisingly, young people in China use the Internet much more than the older generations. So the views that turn up online may reflect some age bias. (For example, some Korean War veterans may have different opinions on the North Korean nuclear issue, but they seldom post their views on the Internet.)

The views of the Chinese public are rooted in China's history of the past one and a half centuries. In the first half of its modern history, China was repeatedly invaded by Western powers armed with advanced weapons. One lesson the Chinese people learned is that "a country would be beaten if it falls behind others."[23] So the Chinese are very sensitive to the advancement of military technology in the world, especially in developed countries. Japan's potential nuclear-weapons capability always triggers a lot of attention in Chinese public Internet forums. The public is grateful that the global nuclear nonproliferation system has constrained advanced countries like Japan from developing nuclear weapons. However, when they saw the news about the Japanese plutonium program, they complained that the nonproliferation system leaves loopholes for developed countries.[24]

China is determined to oppose the proliferation of weapons of mass destruction and to support international nonproliferation efforts.

In recent years, the Chinese public was shocked by the progress of North Korea's nuclear-weapons program and began to pay more attention to nuclear proliferation in developing countries. The Chinese people enjoy the fruits of reform and openness and consider that the North Korean nuclear-weapons program disturbs China's economic development. China's war experience with Vietnam in the late 1970s reminds the Chinese people about the reliability of military alliances. Many posts on the Internet expressed deep concern about North Korea's nuclear and missile programs and worry that the programs are a direct

threat to China.[25] The concern leads the posters to doubt the effectiveness of the nuclear nonproliferation system. Many of them suggest punishing North Korea for its nuclear and missile programs. However, those advocating punishment lower their voices every time the United States and South Korea flex their muscles in joint military exercises.[26]

Articles on the Internet in China discuss India's conventional military capability much more than its nuclear capability, unless some Indian experts characterize China as a nuclear threat.[27] Part of the reason is that neither the Chinese government nor the Indian government intends to leverage their nuclear weapons. The Chinese public smells very little nuclear smoke in the bilateral relationship. Part of the reason is that the Chinese regard the Indians as allies in resisting invasions by Western powers in the nineteenth century. The Internet posts do not pay much attention to the Pakistani nuclear capability either. Discussions relating to Pakistan's military capability are mostly about its conventional military capability.

The biggest public debate in China on security issues revolves around the U.S. invasion of Iraq in 2003. People were divided into two groups on the Internet, and a number of intellectuals were involved in the debate. One group believed that U.S. foreign policy consists of bullying small countries, the invasion of Iraq being a prime example. They posted articles opposing the war and disagreed on the U.S. counterproliferation strategy through a preemptive strike. Another group regarded U.S. foreign policy as a promotion of democracy and appreciated the U.S. effort in wiping out the Iraqi nuclear-weapons program.[28] Today, years later, some of the people in the two groups retain those perspectives.

Neither of these two groups of people is satisfied with China's foreign policy. Both are critical of China for doing too little—but for different reasons. The first group complains that the Chinese government does not stand up to stop the United States from bullying small countries, while the second complains that the Chinese government is not cooperative enough with the U.S. foreign policy. These two points of view are probably extreme, and there may be a large number of people in the middle who do not feel the urge to speak up.

GOVERNMENT POLICY

The Chinese government position on global nuclear nonproliferation underwent some significant changes in the 1990s. The Chinese government had publicly criticized the discriminatory nature of the NPT.[29] Then, in 1992, China joined the NPT. The most substantial change in China's position happened during the NPT Review Conference in 1995. At the Review Conference, China for the first time gave higher priority to its cooperation with other nuclear-weapon states than with other developing counties. Since then, China speeded its pace in joining the global nuclear nonproliferation system. Today China has joined all international treaties and organizations on nuclear nonproliferation.[30]

China is determined to oppose the proliferation of weapons of mass destruction and to support international nonproliferation efforts.[31] China believes that the NPT is the cornerstone of the global nuclear nonproliferation system and has played important roles in fostering nonproliferation, nuclear disarmament, and the peaceful use of nuclear energy.[32]

China suggests that the global nuclear nonproliferation system should deal with nuclear nonproliferation and peaceful use of nuclear energy in a balanced way, that is, not to impose obstacles to NPT members' right to peaceful use of nuclear energy while stopping nuclear proliferation in the name of nuclear energy.[33]

China maintains that all nuclear-weapon states should fulfill the obligations stated in Article XI of the NPT and should publicly commit to not seek permanent possession of nuclear weapons. The bigger nuclear-weapon states should take the lead to reduce their nuclear arsenals, and others should join the process when appropriate conditions are met.[34]

China maintains a preference for political and diplomatic approaches in nuclear nonproliferation. It suggests improving the global nuclear nonproliferation system, strengthening national export control systems, and solving proliferation issues by dialogues and international cooperation. China also believes that the improvement of overall international relations and appropriate settlement of regional security problems help the international nonproliferation efforts.[35]

China strongly opposes and criticizes North Korea's nuclear-weapons programs.[36] It led the six-party talks in an effort to solve the problem. As for Iran, as stated by Chinese Premier Wen Jiabao, China "adamantly opposes Iran developing and possessing nuclear weapons."[37] China supports establishing a Middle East Nuclear Weapon Free Zone and rejects letting any country in the region develop nuclear weapons.[38] This certainly includes Israel's nuclear weapons. China criticized India's and Pakistan's nuclear tests and took note of the commitments of the two countries not to conduct any more nuclear tests.[39] The Indian government and security experts may want China to formally recognize India's status as a nuclear-weapon state. This is in contradiction to China's general position of strengthening the NPT. However, the Chinese government takes practical stance on the U.S.-Indian Civil Nuclear Cooperation Agreement and does not oppose civilian nuclear energy development in South Asia.[40] Actually, China was very helpful to India's civilian nuclear industry even before the U.S.-Indian nuclear deal.

China actively participates in international cooperation on nuclear security. It believes that counterterrorism is extremely important for China and the rest of the world. China has taken concrete steps to improve nuclear security in China and joined all global regimes on this topic. China has also developed bilateral nuclear security cooperation with the United States, Japan, and South Korea.

China does not have a declaratory policy on whether it is permissible to violate national sovereignty in case of nuclear security threats. However, China's attitude toward this issue may be surmised by viewing its attitude toward the Proliferation Security Initiative. China understands the concerns of the PSI participants, supports the guidelines and goals of PSI,

and agrees on the cooperation of PSI participants in the legal framework of international law. However, China is concerned about the compliance of international law. China's attitude toward possible violation of sovereignty in hypothetical nuclear security actions may very well be similar.

In China, the elite and public views on the global nuclear nonproliferation system in general are very positive. The views are somewhat different when it comes to some special cases and practical approaches. All these views are important inputs to the Chinese government policy on nuclear nonproliferation.

NOTES

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GLOBAL NONPROLIFERATION SYSTEM

T. P. SREENIVASAN

INTRODUCTION

India is among the three countries that have not signed the Non-Proliferation Treaty (NPT). But India's position on nuclear nonproliferation is unique, even among the non-signatories. In fact, India is much more committed to the holistic purposes of the NPT than some of the signatories, which place undue stress on some elements of it, to the detriment of some cardinal principles. Legend has it that the first draft of the NPT was framed in New Delhi as an early disarmament exercise. The NPT is as much about technical cooperation for peaceful uses of nuclear energy and disarmament as it is about preventing the spread of nuclear weapons. The tragic flaw in what many see as the grand bargain was not that it laid down that there should be no new nuclear-weapon powers, but that it did not, in practice, restrain the nuclear-weapon states from refining and upgrading their arsenals. If only there had been an expectation that the nuclear-weapon states would renounce nuclear weapons, even in the distant future, and if it had fulfilled the promise of "atoms for peace," the treaty would not have been challenged. India has valid reasons to remain outside the treaty, but that is not an obstacle to its engagement with the global nonproliferation regime.

A series of positions that India has taken over the years on matters relating to nonproliferation reveals its commitment to nonproliferation and disarmament. India has pledged a moratorium on nuclear explosive tests. The expectation is that it will not stand in the way of the entry into force of the Comprehensive Test Ban Treaty (CTBT) if the United States and

China ratify it. India has agreed to join the Fissile Material Cut-off Treaty negotiations when they commence. It has effective legislation and processes in place to ensure that there is no transfer of nuclear technologies or material, it has signed an India-specific safeguards agreement with the International Atomic Energy Agency, and it has pledged itself to a no-first-use doctrine. It has said that it will not supply sensitive enrichment and reprocessing technology to countries that do not possess them. Many signatories to the NPT may not be able to claim such unequivocal positions on some of the elements of the nonproliferation regime as it prevails today.

> **Effective disarmament must enhance the security of all states and not merely that of a few.**

India's approach to nuclear disarmament, nuclear nonproliferation, and, by extension, to arms control, is primarily based on the belief that there is close synergy among all three. Nonproliferation cannot be an end in itself and has to be linked to effective nuclear disarmament, which, for India, is the highest priority. Nuclear disarmament and nonproliferation should be seen as mutually reinforcing processes. Effective disarmament must enhance the security of all states and not merely that of a few.

FLAWS IN THE NPT

The current nuclear nonproliferation system, despite its imperfections and loopholes, has advanced the larger goals of nonproliferation. But dynamism, rather than rigidity, should be the hallmark of any system that seeks to address emerging situations in a fast changing world that is marked by rapid technological advancement. The decision in 1995 to make the NPT a perpetual treaty with no possibility of amendments froze it in time and space. The discriminatory nature of the NPT not only infected but also overshadowed the CTBT, and the new instrument also deviated from the cardinal disarmament aspect. The negotiations on the Fissile Material Cut-off Treaty are bogged down in Geneva. The other components of the system, such as the Nuclear Suppliers Group (NSG) and the Missile Technology Control Regime (MTCR), insist on excluding countries that are otherwise qualified by bringing these countries' regulations in tune with their norms, on the grounds of their status with the NPT. As a result, the entire nonproliferation system has become flawed, necessitating renewal and rejuvenation.

In India's view, ideally, the NPT should be reviewed in the real sense of the term, and the necessary changes should be made to the list of nuclear-weapon states to reflect the realities of today. India has expressed its willingness to sign the NPT as a nuclear-weapon state and to adhere fully to its provisions. It must be stressed that there is no prospect whatsoever of India joining the treaty as a non-nuclear-weapon state. Pending such a review, the provi-

sions of the treaty must be enforced in all respects, together with holding consultations with those outside the system. Nonproliferation obligations arise from international agreements or treaties to which states are parties, and issues of noncompliance should be addressed in accordance with the provisions contained within those international agreements and treaties. Memberships of such groups as NSG, MTCR, the Australia group, and the Wassenaar Arrangement must be open to interested countries to enable them to come into the fold and accept obligations to arrest, if not reverse, the proliferation trends in multiple areas; the admission of countries like India will make the groups more effective. Enforcing the provisions of the treaty on the signatories and engaging those outside with a view to get them to implement as many aspects of the nonproliferation system as possible should be the dual strategy to be pursued. An inclusive rather than exclusive strategy may stabilize the system, which is currently under severe stress.

Both the NPT and the nonproliferation system need close scrutiny in the interest of global security. The opportunity should be taken to change the NPT, if it is found that the problem lies in its inadequacies. If the regime itself is defective, further proliferation would be inevitable and dangerous.

India, Pakistan, and Israel were not nuclear-weapon states when they decided to stay out of the NPT. Each had its own reasons for its reluctance to embrace the treaty. India had spelled out its position repeatedly in international forums. Basically, it is the discriminatory nature of the treaty, which permits two categories of states with different rights and obligations that militated against India's accession. India also felt that, if nuclear weapons were to remain salient in the security doctrines of major nations, a country of the size and location of India could not afford to close its option to develop nuclear weapons for its own security. Though India continued to develop its indigenous nuclear capability and even conducted a peaceful nuclear explosion in 1974, India did not exercise its nuclear option till 1998, when the CTBT turned out to be unacceptable, China's nuclear arsenal began to grow, and Pakistan developed its clandestine nuclear capability with the connivance of China and North Korea. The deadline for enforcement of the CTBT set for 1999 may have been a factor in India's decision to conduct the tests and declare itself a nuclear-weapon state in 1998.

INCLUSION OVER ISOLATION

India believes that it had sufficient justification to become a nuclear-weapon state outside the NPT regime and no amount of coercion will alter its position unless the regime moves to a total and verifiable elimination of nuclear weapons. The other states outside the NPT, whether it is Pakistan, which has declared itself a nuclear-weapon state, or Israel, which is believed to possess nuclear weapons, have their own reasons to assume their respective posi-

tions. The nonproliferation regime should take into account the threat perceptions of these countries and engage with them, rather than seek to isolate them or target them for punitive action. They should be brought in as partners in the nonproliferation efforts.

The challenge from North Korea to the nonproliferation regime is direct and subversive, while the Iranian moves are subtle and nuanced. North Korea withdrew from the NPT in accordance with the provisions of the treaty for such withdrawal and proceeded to announce weapons tests. Such withdrawal to escape the consequences of violations while being a member is prohibited under international law. But North Korea has continued to be involved in negotiations with the United States and with other countries, though there has been no substantial change in its defiance of the nonproliferation regime. It has sought to bargain for economic benefits in return for giving up its nuclear-weapon exploits. There being no alternative to it, a carrot and stick approach has proved valuable in dealing with the North Korean challenge. The nature of the regime and the dire economic situation of North Korea, together with the perception of threat from South Korea and its allies, have shaped the North Korean posture of alienation from the nonproliferation regime. Active engagement to remove its anxieties with regard to security and development appears to be the international community's only option.

Iran is anxious to maintain its adherence to the NPT, even while posing a challenge to the nonproliferation regime by threatening to develop nuclear technology without restraint, raising fears that it might develop its own nuclear weapons. Iran continues to maintain that it has not violated any of the provisions of the treaty and that its nuclear activities are strictly within the confines of the NPT. Iran has ostensibly cooperated with the IAEA in its efforts to ascertain that Iran is not engaged in activities that may lead to the development of nuclear weapons and has permitted inspections envisaged in the Additional Protocol. But the IAEA has not been convinced that Iran is fully transparent in providing information. Many questions have remained unanswered, causing suspicion about Iran's true intentions. The IAEA has moved progressively to the tentative conclusion that Iran has multiple objectives for its nuclear program, including the eventual development of nuclear weapons.

> **India has supported the efforts of the nonproliferation regime to bring North Korea and Iran into its realm, regardless of India's own interests.**

The right strategy, in the case of Iran, is to insist that it fulfill its obligations under the NPT, including the requirement of reporting its activities to the IAEA. Behind that insistence is the threat of sanctions and even use of force. Israel's special concern about Iran has weighed heavily in the Western perception of the gravity of the situation, and war is not ruled out as an option. Encouraging signs appear occasionally when Iran engages with the designated European powers to find a solution that will permit its development of nuclear technology without causing alarm in the international community. But multilateral and

unilateral sanctions of various kinds have been imposed on Iran in a bid to make it comply with the NPT provisions. War clouds have been gathering even on the Iranian horizon.

India has consistently maintained that, as a signatory to the NPT, Iran has the obligation to abide by the provisions of the treaty. Given the international concern about the secretive nature of Iran's nuclear activities, India has also emphasized the need for Iran to cooperate fully with the IAEA. It is no secret that India opposes Iran's developing a nuclear-weapons capability. The votes India has cast in the IAEA on reporting Iran's noncompliance to the UN Security Council clearly indicate India's position. But India strongly favors a peaceful political solution to the Iran situation rather than a coercive or threatening posture. As a responsible and mature nation, Iran can be expected to respect the wishes of the international community. India abides by the decisions of the Security Council but holds the view that sanctions merely create hardship and provoke intransigent positions.

In approaching the cases of countries that challenge the nonproliferation regime, India places its international obligations above its national interests. India implements Security Council decisions scrupulously and also respects the wishes of the international community in this regard. In the case of North Korea, India has supported the decisions of the international community to maintain pressure. No national interest has stood in the way of India's firm position.

In the case of Iran, the salient point is that India and Iran have civilizational linkages and an active bilateral relationship at the political, economic, and cultural levels. India has endeavored not to hurt these relations in the context of the nuclear imbroglio. Iran is a major supplier of oil to India, and the building of a pipeline from Iran to India has been in the works for several years. But even in this sector, India has taken certain steps to reduce its dependence on Iran in anticipation of tighter sanctions being imposed by the Security Council.

In both cases, India has supported the efforts of the nonproliferation regime to bring North Korea and Iran into its realm, regardless of India's own interests.

U.S.-INDIAN DEAL A SUCCESS STORY, BUT NOT TRANSFERABLE

The record of the nonproliferation regime over the past fifty years and the growing global security challenges do not give any reason for optimism that a treaty frozen in time can be durable and effective. The dire prediction made in the early 1970s that as many as 30 countries would turn into nuclear-weapon states by the end of the twentieth century certainly did not materialize, and the nonproliferation regime can take some credit for it. But the regime has not been able to prevent either clandestine acquisition of nuclear weapons or development of deadly technologies that could be used for weapons on short notice. Danger will also arise from terrorism, non-state actors, accidents, and so-called dirty bombs, which

combine conventional explosives with radioactive material. The system has no capability to deal with these global threats as yet, even though there is considerable concern about them.

Several countries have shown a tendency to seek sensitive nuclear technology, bordering on weapons technology. All of them have peaceful nuclear programs that can be turned into weapons programs on short notice. All of them have threat perceptions involving nuclear weapons acquired by North Korea and Iran. The emergence of any of them as nuclear-weapon powers would have a spiraling effect, which can devastate the regime.

The U.S.-India Civil Nuclear Cooperation Agreement has a certain background and history, which are sui generis. By 2000, U.S.-Indian relations had reached a plateau and the only issue that prevented any upward growth was the nuclear issue. The determination on both sides to remove this irritant led to an exceptional arrangement, which was approved by the NSG by consensus in September 2008. Some critics have viewed this as going against the spirit of the nonproliferation regime. It was India's impeccable record in nonprolifera-tion that impelled the votaries of the NPT and its paraphernalia to approve the NSG decision that turned the page on punitive measures on India and commenced the phase of active partnership. The characterization of India as a responsible technologically advanced state was the key to the application of a new formula in its case.

> **The U.S.-India Civil Nuclear Cooperation Agreement has served to strengthen rather than undermine the nonproliferation regime.**

The U.S.-India Civil Nuclear Cooperation Agreement has served to strengthen rather than undermine the nonproliferation regime. A significant number of Indian nuclear reactors have come under safeguards, and India has committed to a unilateral and voluntary moratorium on nuclear explosive testing. India has signed an India-specific safeguards agreement and an Additional Protocol, which would make diversion of imported nuclear materials for weapons purposes impossible. India has become a partner in the nonproliferation regime, rather than a target of it.

As was stressed by President George W. Bush at the time of the U.S.-Indian nuclear deal, the Indian model cannot be used in the case of Pakistan, as the nuclear histories of the two countries are different. Pakistan has systematically undermined the basic tenets of nonproliferation, not only by acquiring nuclear technology in a clandestine manner, but also by running a virtual Wal-Mart of lethal nuclear material, for example, through the A. Q. Khan network. Pakistan has acquired nuclear reactors from China without being subjected to any of the conditions that were imposed on India in return for clearance to purchase nuclear fuel and equipment from members of the NSG.

The U.S.-Indian nuclear deal is yet to realize its full potential, first, because of the hesitation of companies due to the concerns on liabilities of suppliers established in Indian law relating to compensation and, secondly, because India has been denied enrichment and reprocessing technology. Both these issues need to be sorted out. Furthermore, the acci-

dent in Fukushima, Japan, has triggered a series of reactions worldwide, including in India, against the desirability of dependence on nuclear power. Fukushima may have halted and reversed the expected nuclear renaissance and thus reduced the risk of proliferation through the spread of nuclear power.

The template of the U.S.-Indian nuclear deal cannot be replicated as the needs and circumstances of each country are different. Israel has not even sought a special dispensation and has signed the CTBT to indicate that it is not seeking nuclear material from abroad.

As the Indian prime minister reiterated in Seoul in March 2012, "nuclear security is primarily a national responsibility, but there are benefits to be gained by supplementing national actions through sustained and effective international cooperation." Nuclear terrorism has been considered a possibility ever since 9/11, particularly since there is a real possibility of nuclear material falling into the hands of terrorists. Utmost care has to be taken to secure nuclear material. Nuclear weapons are in a class by themselves when it comes to protection of radioactive material because international monitoring or supervision of nuclear weapons will not be possible except in exceptional circumstances as in Iraq, with due authorization by the UN Security Council. At best, international cooperation may involve the sharing of best practices and intelligence. International action either to remove unauthorized materials or to protect materials found in NPT member states is not permissible, as it would violate the principle of state sovereignty. At present, there are no universally acceptable rules to permit external intervention to remove the danger arising from possession of nuclear materials by any nation.

The silver lining on the disarmament horizon is the renewed discourse on the possibility of the elimination of nuclear weapons and President Obama's own commitment to work toward a world free of nuclear weapons. India's action plan to eliminate nuclear weapons in stages by 2010—the only systematic plan ever attempted and put forward as early as 1988 at the United Nations—has gained recognition, if not acceptance. India has recently elaborated and updated the Rajiv Gandhi Plan to offer the world a new formula for time-bound nuclear disarmament.

TIME TO GO BEYOND THE NPT REGIME

The nonproliferation regime has served its purpose only partially, and it lacks the flexibility to adapt itself to new situations. India has an interest in strengthening nonproliferation as the infirmities of the regime have had an impact on India's security. The world, therefore, has to go beyond the NPT regime. India has called for commitments embedded in an agreed multilateral framework for nuclear disarmament covering all states possessing nuclear weapons. This should include measures to reduce nuclear dangers by decreasing the salience of nuclear weapons in security doctrines and by increasing universal restraints on the first

use of nuclear weapons. Only total elimination of nuclear weapons can rid the world of the risk of mass destruction. The goal should be to reduce nuclear arsenals, leading eventually to their elimination. The ultimate nonproliferation mechanism is the one that will bring about a nuclear-weapon-free, nonviolent world in a time-bound framework. India is committed to that goal.

The nuclear-weapon states, recognized as such by the NPT, have made the NPT central to their nonproliferation efforts. They do not see the deficiencies of the treaty as they have a vested interest in being in a special category of states whose arsenals have been declared legitimate. They have constantly upgraded their weapons capability, denied sophisticated technology to non-nuclear-weapon states, and disregarded their commitment to nuclear disarmament. Unlike India and several of the signatories, the nuclear-weapon states consider it unnecessary to make any changes to the NPT. Concerns about nuclear security and safety have prompted them to consider additional measures by engaging others, but they still insist on universalization of the NPT. India has participated in security discussions at the highest level in the expectation that the existing regime will be adjusted to meet the new requirements. The dogmatic commitment to the NPT will lead only to unrealistic expectations.

> **India has a vital interest in limiting the spread of nuclear weapons, but the real solution is the total elimination of nuclear weapons.**

A core weakness of the NPT has been identified as the possibility of the technology provided for peaceful purposes being used for developing weapons by some countries, which might leave the treaty. Such temptations may arise as long as the nuclear-weapon states do not honor their commitments to disarmament. But the only country that walked out of the treaty, North Korea, acquired nuclear technology through China and Pakistan clandestinely, rather than under the provisions of the NPT. The technology transferred to non-nuclear-weapon states has not been of much significance so far. If a review of the NPT takes place, it will be advantageous to examine this aspect as well.

India has a vital interest in limiting the spread of nuclear weapons, but the real solution is the total elimination of nuclear weapons. Arms control and nonproliferation efforts should be intermediate steps, leading to a nonviolent world free of nuclear weapons. The advent of terrorism has accentuated the urgency of pursuing disarmament efforts. Any nonproliferation regime should be nondiscriminatory in character, and it should enhance the security of all nations.

REGIONAL SECURITY

QUESTIONS POSED TO THE AUTHORS ON
ASIAN SECURITY

1   According to your country, what are the three most pressing security concerns confronting Asia?

2   What broad national strategy has your country adopted for dealing with these critical challenges?

3   In the perception of your country, what is the appropriate balance between military and nonmilitary instruments for advancing Asian security? What is the utility of confidence-building measures in this respect?

4   Does your country believe that the critical challenges of Asian security are best dealt with through independent national solutions, bilateral negotiations, coalitions of like-minded states, regional organizations, and/or new Asia-wide institutions?

5   What does your country perceive to be the appropriate role for the United States regarding Asian security?

ASIAN SECURITY

XIA LIPING

CHINA'S SECURITY CONCERNS

Historically, the dominant power in the international system usually exploits contradictions between two rising powers to check them. However, this is the era of globalization. Rising powers today (China and India) and the dominant power in the international system (the United States) share more and more common interests and face an increasing number of challenges. They have to cooperate in many fields while also competing with each other on many issues. It is better for them to engage in positive competition and do their best to realize results in which everyone wins.

Traditionally continental powers, China and India are now evolving as maritime powers as well. China historically has shown more interest in the Pacific Ocean, though the Indian Ocean is drawing more of its attention because it serves as one of China's important sea lines of communication (SLOCs). India, meanwhile, has historically exhibited more interest in the Indian Ocean but now has increasing interests in the Pacific Ocean. To a large extent, how the two countries deal with each other and with the United States, the global maritime power, will decide the future of Asian security.

Beyond the Chinese-Indian maritime interests, there are other flash points in Asia. To China, the three most pressing security concerns confronting Asia are the Korean Peninsula, the South China Sea, and the Iranian nuclear issue. All three issues have involved outside major powers and have posed both traditional and nontraditional challenges to the region and the world.

THE KOREAN PENINSULA

The confrontation on the Korean Peninsula, along with North Korea's nuclear program and missile launches, may lead to a new crisis and armed conflicts.[1] The Korean Peninsula is the only place in the world where the Cold War framework still exists. Although China and Russia established diplomatic relationships with South Korea in the early 1990s, the United States and Japan have yet to establish diplomatic relations with North Korea. The nuclear stand-off on the Korean Peninsula since October 2002 has been mainly the consequence of the Cold War framework and mentality. After North Korean leader Kim Jong Il died in December 2011, his third son, Kim Jong Un, succeeded him, and is continuing the policies of his father.

The Korean Peninsula is one of China's most important neighbors. Northern and eastern neighbors, being much nearer to China's political and economic centers, have usually been more important to China in terms of security than its southern and western neighbors. The Korean Peninsula, on the one hand, may become a buffer zone for China's northeast land borders and a protective screen of China's northeast and eastern sea borders; on the other hand, it may also become a gangplank—China has long feared that a third country such as the United States could use the Korean Peninsula to invade China. From the perspective of current geopolitics, Northeast Asia, where the Korean Peninsula is located and where the interests of the four major powers—China, the United States, Russia, and Japan—have intersected, is of enormous strategic importance to China—greater even than that of South Asia or Southeast Asia.

> **China has two goals relating to the Korean Peninsula: that it be stable and nuclear-free.**

Since the Ming Dynasty, China has had two objectives concerning its policy toward the Korean Peninsula—preventing Korea from posing a threat to China and preventing a third country from using the Korean Peninsula to invade China. Since the establishment of the People's Republic, those two objectives have remained part of China's policy toward the Korean Peninsula. From the new security concept, China would like to develop economic and security cooperation with both North and South Korea and the United States to have a "win-win-win" situation.

Also since the establishment of the People's Republic, China's foreign policy has been based on the Five Principles of Peaceful Coexistence: mutual respect for territorial integrity and sovereignty, mutual nonaggression, mutual noninterference in each other's internal affairs, equal and mutual benefit, and peaceful coexistence. The focus of China's policy toward the Korean Peninsula has been to ensure a long-term peaceful and stable security environment, which is beneficial for China's domestic economic and social development.

Now China has two goals relating to the Korean Peninsula: that it be stable and nuclear-free. The six-party talks have provided a suitable mechanism for the process to resolve the

North Korean nuclear issue through dialogue and negotiations. If that is successful, it is natural for the six-party talks to become a Northeast Asian security cooperation mechanism.

THE SOUTH CHINA SEA

The South China Sea has become a hot spot involving China, the United States, Southeast Asian countries, India, and Russia. The Nansha Islands and Xisha Islands in the South China Sea have been China's territories for more than a thousand years. That was not disputed by other countries until the 1970s, when big amounts of raw oil and natural gas were found in the South China Sea, and some Southeast Asian countries, among them Vietnam and the Philippines, occupied some islands and reefs in the Nansha Islands.

China was historically a continental power, not attaching great importance to its maritime rights until the 1980s. By that time, most of the islands and reefs in the Nansha Islands had been carved up by Southeast Asian countries.

With the rapid development of its economy, China has been paying more attention to energy and other natural resources. At the same time, with the development of its national defense modernization, China wants to better protect its rights of exploration of oil and natural gas in the South China Sea either on its own or in joint development with other countries. So China has been attaching more importance to its maritime sovereignty and rights in the South China Sea.

Now there are dual interdependencies in Southeast Asia. On the one hand, China has become one of the biggest trading partners with most Southeast Asian countries, which have benefited from China's economic development. On the other hand, some of these countries, member states of ASEAN, the Association of Southeast Asian Nations, depend on the United States in the security field. Some ASEAN members, which have had disputes with China over maritime sovereignty and rights in the South China Sea, are concerned that China may use force or threaten to use force to press them to give up their claims on maritime territories and rights in the South China Sea. They want to make use of Chinese-U.S. relations to get to a better strategic position in the region and so they use the "China threat" as an excuse to ask the United States to boost the strategic importance of the region and themselves.

In November 2011, the Obama administration declared the U.S. strategy of re-engaging Asia. In fact, the United States has never left Asia, though post-9/11, the Bush administration had neglected Southeast Asia to some extent. Even before the latest declaration, the United States joined the Treaty of Amity and Cooperation in Southeast Asia in July 2009, and President Barack Obama met his counterparts from the ten-member ASEAN during summits in 2009, 2010, and 2011.

In July 2010, Secretary of State Hillary Rodham Clinton stated that free navigation in the South China Sea was in the U.S. national interest. In fact, the United States also wants to use ASEAN to balance the rise of China, so as to maintain its own leadership in the Asia-Pacific region.

When the United States and ASEAN made up the "10 + 1" mechanism, the ASEAN-dominated mechanism had already changed in nature. The ten ASEAN member nations confirmed their need for a U.S. role in Asia and hoped that it would fulfill its security "commitment" in Southeast Asia. In 2010, ASEAN announced its decision to expand the East Asia Summit to include the United States and Russia. By inviting a larger role for the United States in Southeast Asia, ASEAN is obviously attempting to balance China's rise, although such an act is not new.

On January 2, 2010, Clinton spelled out the Obama administration's blueprint for the Asia-Pacific "regional architecture." Obama hosted the 2011 APEC high-level meeting in Hawaii, an important step toward such a new "Asia-Pacific," rather than "Asian" (East Asian) regional order.

Over the twenty years since the end of the Cold War, Chinese-ASEAN relations have witnessed tremendous progress. Because of the economic recession caused by the international financial crisis, the importance of U.S. and European markets for ASEAN goods is growing smaller, while the Chinese market is becoming increasingly significant. China is now ASEAN's largest trading partner, and bilateral trade and investment are maintaining good momentum. The Chinese government also provides development assistance for nations in the region, and China and ASEAN have become partners in many multilateral events. China is committed to the development of bilateral relations with ASEAN. It also supports ASEAN-led regionalism and inter-regionalism. And it insists on resolving disputes with Southeast Asian nations through dialogue and cooperation.

However, the U.S. pivot to Asia has complicated the situation in the South China Sea. And the strengthened U.S. military alliance with the Philippines and joint military exercises with the Philippines and some other countries have sent the wrong signals, making the Philippines think if it had an armed conflict with China, the United States would defend it. So the Philippines has carried out a tough policy toward China over the maritime disputes with China in the South China Sea.

IRAN'S NUCLEAR PROGRAM

The Iranian nuclear issue may result in military attacks by Israel and/or the United States, which could lead to a regional war and high oil prices in the world market. Although the Iranian government insists that its nuclear program is peaceful, thus far Iran has not provided sufficient transparency to enable the International Atomic Energy Agency to certify that all of Iran's nuclear activities have been exclusively peaceful, as required under the Non-Proliferation Treaty. The UN Security Council has passed six resolutions requiring Iran to suspend the enrichment of uranium. Furthermore, the United States and the European Union have imposed tough sanctions of their own. The U.S. government has opposed all loans to Iran from international financial institutions, barred many banks of Iran from doing business with the U.S. financial system, and frozen U.S.-based Iranian assets. However,

Tehran has stood firm on its nuclear enrichment program, warning that if attacked, it would seriously retaliate. The possibility of armed conflicts between Israel and the United States on one side and Iran on another side has been increasing.

China does not want to see a nuclear-armed Iran. However, China has significant economic interests with Iran. About 11 percent of the oil imported by China in 2011 came from Iran. Furthermore, 55 percent of raw oil consumed by China is imported from other countries. China is now the second-largest raw oil-consuming country in the world and the second-largest raw oil-importing country in the world. So if the price of oil in the world market is very high or the Strait of Hormuz is blocked, China will seriously suffer. China would like to see a peaceful resolution of the Iranian nuclear issue through negotiations and stability in the Persian Gulf.

CHINA'S NATIONAL STRATEGY[2]

The first two decades of the twenty-first century are a period of important strategic opportunity for China. During this period China will focus its attention in an all-out way on building a well-off society. The objectives of China's modernization are to quadruple the GDP recorded in 2000 by 2020 and to become a mid-level developed country by 2050. To achieve these objectives, China needs a long-term peaceful and stable international environment that can bolster its economic and social development.

There are three major tasks of historic significance for China: to propel the modernization drive; to achieve national reunification; and to safeguard world peace and promote common development.[3] To accomplish these tasks, China has developed some new concepts for its national strategy.

First, it seeks to work with the international community to maintain regional stability. China will continue to improve and cultivate relations with both developing and developed countries. Proceeding from the fundamental interests of all countries concerned, China will broaden the converging points of common interests and properly settle differences on the basis of the Five Principles of Peaceful Co-existence, notwithstanding the differences in social systems and ideologies. China will increasingly cooperate with the United States and other countries in dealing with regional security problems, such as the nuclear issues in North Korea and Iran.

Second, it stresses new concepts of security, primarily mutual trust, mutual benefit, equality, and coordination. Since the end of the Cold War, China has changed its security concepts according to the evolving international situation and interests of the Chinese people as well as the necessity for world peace and development. China believes that to obtain lasting peace, it is imperative to abandon the Cold War mentality, cultivate a new concept of security, and seek new ways to safeguard peace. It has to be kept in mind that the

new concepts of security are in keeping with the trend of the era and have greater relevance. China holds that the core of this new security concept should be mutual trust, mutual benefit, equality, and coordination.[4] The new security concept should be the guideline to resolve regional disputes as well as improve international security.[5]

Third, China seeks to resolve the disputes in the South China Sea and improve its relations with neighboring countries. China's existing guideline is to advance development, peace, and stability in Asia. It is an important part of China's development strategy to maintain good relationships with its neighbors, make them secure, and help them prosper.

China would like to shelve the disputes over territorial and maritime rights in the South China Sea and engage in joint exploration of oil and natural gas with other countries in the area. However, some South Asian countries, such as Vietnam and the Philippines, have tried to legitimize their occupation of the islands and reefs belonging to China and reap great benefits from their unilateral exploitation of resources through contracts with foreign companies, and thus far have refused to participate in joint development projects with China.

China has put great importance on using nonmilitary instruments to advance Asian security, and has stressed that the international community should make great efforts to resolve disputes through peaceful means, including negotiations.

China has to protect its sovereignty and territories in the South China Sea. If the armed forces of any country open fire first against a Chinese law enforcement platform or the Chinese navy, China has to defend itself.

China has adhered to its philosophy of "fostering close and friendly relations with neighbors," to cooperatively establish stable and harmonious relationships.

China has vigorously maintained regional peace and stability, persisting in improving mutual trust through dialogue and cooperation and in resolving disputes though peaceful negotiations. China will strengthen cooperation for mutual benefit with its neighbors, and deepen regional and subregional cooperation in order to realize common development goals with other Asian countries.

Fourth, maintaining stability and peace and realizing a nuclear-weapon-free Korean Peninsula is part of China's strategy. The direction of affairs on the Korean Peninsula will mainly depend on the development and direction of the internal situation and policy of North Korea. The United States, Russia, Japan, and China all would like to see a stable and peaceful Korean Peninsula. South Korea recognizes it is in no one's interest to unleash an all-out war against North Korea; the most important variable is North Korea.

China has been playing a positive and active role throughout the North Korean nuclear crisis. China hosted the six-party talks in Beijing and pursued shuttle diplomacy to coordinate the member nations of the six-party talks. At the same time, China made great efforts to try to persuade North Korea to give up its nuclear-weapons option. China will try its best to further contribute to the resolution of the Korean nuclear issue through peaceful means.

Fifth, China prioritizes cooperating with the international community to resolve the Iranian nuclear issue through negotiations. China has two major objectives in its strategy to deal with the Iranian nuclear issue. The first is to maintain the authority and integrity of the international nuclear nonproliferation regime. Thus China has positively and actively participated in the process of the negotiation between the six powers (the five permanent members of the UN Security Council—namely China, the United States, Britain, France, and Russia—plus Germany) and Iran. At the same time, China has made great efforts in persuading Iran to have a flexible policy on the nuclear issue.

The second major objective is to develop and protect China's energy and economic interests in its relations with Iran. China has abided by the UN Security Council resolutions on sanctions against Iran. At the same time, China has to make efforts to minimize any loss of its economic and energy interests with Iran.

THE BALANCE BETWEEN MILITARY AND NONMILITARY INSTRUMENTS

Military instruments are still extremely important in defending China's national interests. China has made significant progress in its national defense modernization. However, during recent years, the People's Liberation Army (PLA) has attached importance to carrying out the tasks of counterterrorism, stability maintenance, emergency rescue, and international peacekeeping. "It takes military operations other than war (MOOTW) as an important form of applying national military forces, and scientifically makes and executes plans for the development of MOOTW capabilities."[6] The PLA "participates in international security cooperation, conducts of various forms of military exchanges and promotes the establishment of military confidence-building mechanisms."[7]

China has pursued the national defense policy of defensiveness. China's military strategy guideline is active defense, which means that China will not invade other countries and will not open fire first. China has made some important progress in the modernization of its forces and preparation for fighting and winning a partial war with high technology. In order to defend its territory and sovereignty, China has to develop some capabilities of asymmetric weapons to deter military interference by other major powers.

At the same time, China has put great importance on using nonmilitary instruments to advance Asian security, and has stressed that the international community should make great efforts to resolve disputes through peaceful means, including negotiations.

In order to realize the appropriate balance between military and nonmilitary instruments, countries in the region should make dialogue and negotiation a priority to resolve disputes. China should also pursue a deterrence strategy to use military means to deter aggression from other countries. MOOTW should become an important part of military

operations. Use of force should be the last means and only for the purpose of self-defense.

In this regard, confidence-building measures can play a very important role to prevent armed conflicts or wars caused by misunderstandings or miscalculations.

APPROACHES TOWARD ASIAN SECURITY

Although China continues to pursue its independent foreign policy of peace, China does not think that it can deal with the challenges of Asian security through independent national solutions. Instead, China regards the multilateral international mechanism as the platform for dealing with this critical issue. For example, in November 2002, China signed with ASEAN member states the Declaration of Conduct of Parties in the South China Sea, which reaffirms that relevant disputes over the South China Sea should be resolved by peaceful means through friendly consultation and negotiation. Pending the settlement of disputes, "the Parties undertake to exercise self-restraint in the conduct of activities that would complicate or escalate disputes and affect peace and stability."[8] The signing of the document is of great significance for maintaining peace and stability in the South China Sea region. At the same time, China thinks its disputes with Southeast Asian countries over territory and maritime rights in the South China Sea should be resolved through bilateral negotiations, because multilateral negotiations would be extremely difficult. Bilateral agreements can perhaps be reached as the first step, and then a multilateral agreement can be negotiated. China opposes taking the matter to the International Court of Justice, because, just like a person who owns property, the disputed islands and reefs in the South China Sea are China's territories, and so China cannot agree to leave the fate of this property to anyone else's decision.

> **China has no desire to expel the United States from the Asia-Pacific region.**

In its contemporary history, China has never used coercion to press small countries to make a concession during the bilateral negotiations about territory and borders. It has, for instance, signed border agreements with Nepal, Mongolia, and Myanmar. Sometimes, China even exchanged some bigger pieces of land for some smaller ones during negotiations.

Since the end of the Cold War, China has opposed the ideological divisions between countries and does not want to see the establishment of multilateral military alliances. It does not believe that coalitions of like-minded states are capable of dealing with the critical challenges of Asian security. China also opposes any potential multilateral alliance based on "common values" or a concert of democracies in Asia because of the potential negative impact on regional security and divisions it may cause. Additionally, the development of

a "gang of democracies" would reek of discrimination, especially when juxtaposed against many developing countries. And the development of any democratic axis would slow down the process of modernization and democracy within developing countries.[9]

Because East Asia and South Asia are very different geopolitically, China does not think that a new Asia-wide institution can be effective to deal with challenges facing Asia in the foreseeable future.

THE ROLE OF THE UNITED STATES

China has no desire to expel the United States from the Asia-Pacific region. This would be impossible due to the country's significant military presence in the region and the large volume of trade across the Pacific. It is also not in China's national interest because if the United States were to withdraw from the Asia-Pacific region, Japan could potentially become a military power, even a nuclear power, which would further complicate China's relationship with Japan. Nor does China want to challenge the leadership of the United States anywhere else in the world.

China hopes that the United States can play a constructive role in the Asia-Pacific region. First, as an established power, the United States should continue to pursue the policy of engagement and cooperation with a rising China, welcoming China to play a positive and responsible role in the region. Second, the United States should encourage economic cooperation and integration in East Asia, because an open East Asian economic regionalization and regionalism will also be in its own interests. Third, the United States should not send East Asian countries the wrong signals, leading them to believe that the United States will help them militarily in the event of an armed conflict with China. Doing so merely emboldens these countries to pursue tough policies toward China over territorial and maritime disputes. China understands that smaller countries are concerned about Chinese claims over disputed territories, and would like to resolve the disputes through bilateral negotiation. Some Southeast Asian countries want to use the United States to balance China, so they can get some benefit from the balancing. But the involvement of the United States in the disputes has merely complicated the situation. On April 10, 2012, a Philippine navy frigate tried to catch some Chinese fishing boats within the area of Huangyan Island, which led to a confrontation between Chinese and Philippine state ships. Finally, the United States should retract some potentially dangerous policies, which could prove misleading to other countries. For example, the U.S. government should declare that the United States will not take sides in the disputes between China and Japan over the Diaoyu Islands. However, U.S. officials insist that the U.S.-Japan Defense Alliance Treaty applies to the Diaoyu Islands. If China and the Unites States put great effort into reducing the deficit of their strategic trust, the two countries would have better cooperation on Asian security,

which would benefit the interests of both countries as well as the Asian-Pacific region as a whole.

NOTES

1. This section is drawn from Xia Liping, "The Korean Factor in China's Policy Toward East Asia and the United States," *American Foreign Policy Interests* 27, no. 4 (August 2005): 241–58.

2. This section draws from Xia Liping, "Stability in South Asia: A View from China," in *Security in South Asia: Conventional and Unconventional Factors of Destabilization*, *Studies & Comments* 9, edited by Klaus Lange (Munich: Hanns Seidel Stiftung, 2009), 51–62.

3. *Documents of the 16th National Congress of the Communist Party of China* [Zhongguo Gongchandang Dishiliuci Quanguodabiao Dahui Wenjian Huibian], (Beijing, China: Foreign Language Press, 2002), 2.

4. *China's Document About the Position of the New Security Concept* [Zhongguo Guanyu Xin Anquanguan Lichang De Wenjian], put forward by the Chinese delegation at the meeting of ASEAN Regional Forum (ARF), held in Seri Begawan, Brunei, July 31, 2002; see *People's Daily*, August 2, 2002), 3.

5. Chinese Ambassador Hu Xiaodi's Speech at the Conference on Disarmament in Geneva, February 7, 2002.

6. "China's National Defense in 2008 (White Paper)," Information Office of the State Council of the People's Republic of China, January 2009, www.chinadaily.com.cn/china/2009-01/20/content_7413294_4.htm.

7. Ibid.

8. "Declaration on the Conduct of Parties in the South China Sea," signed by China and ASEAN member states in Phnom Penh, Cambodia, November 4, 2002, www.aseansec.org/13163.htm.

9. This paragraph is drawn from Xia, "Stability in South Asia."

ASIAN SECURITY

SRIKANTH KONDAPALLI

INDIA'S SECURITY CONCERNS

The forty-odd countries of Asia have diversified political systems and varying levels of national integration, economic development, and security concerns, although a majority of them are relatively underdeveloped and simply emphasize the need for a peaceful neighborhood and economic development. Recently, thanks to their high rates of economic growth as well as increasing security concerns, Asian countries began to figure into the global and regional orders for a number of reasons.

First, although transatlantic economic prowess has not declined in overall economic figures, there has been a perceptible increase in Asian economic activity recently as many Asian countries have joined the economic restructuring programs and organizations, including the World Trade Organization and the G20. Driven initially by the economic growth rates of Japan, South Korea, Singapore, Hong Kong, Taiwan, and other new industrial economies, today Asia has been witnessing high growth rates led mainly by China, India, Vietnam, and some others. This factor is influencing the international and regional order.

Second, Asian countries are facing new security challenges in addition to their respective unresolved sovereignty and territorial integrity issues. In the domain of nontraditional security challenges, these range from energy and environmental security challenges to ethnic conflicts, terrorism, illegal financial flows, small arms transfers, migration, and others. The challenges are exacerbated by several countries' vying to acquire weapons of mass destruc-

tion and by the competition for natural resources. In the absence of a single and inclusive security architecture in Asia, many security challenges in Asia remain unresolved or even unattended.

In this background, India's security challenges are no different from those of many Asian countries. Three pressing security challenges that India faces today are included in the traditional and nontraditional security domains: unresolved sovereignty and territorial disputes; terrorism; and maintaining economic growth in light of the global financial crisis and eurozone crisis on the one hand and the rising cost of energy, food, and other commodities on the other hand.

SOVEREIGNTY ISSUES

India still has a number of sovereignty and territorial integrity issues with its neighbors that it inherited from British colonial times. The disputes with Pakistan and China in particular have been a major drain on India's resources and are partly responsible for the skirmishes in1947–1948, 1962, 1965, 1971, and 1999. Both the unresolved Kashmir issue (with its attendant "cross-border" terrorism) and the India-China territorial dispute demand huge allocations of resources—financial, human, and military-related—from India. Given the all-weather friendship between China and Pakistan, under which China has supplied conventional and strategic weapons, platforms, or technologies to Pakistan, there is always a likelihood of a possible two-front war for India. Indeed, in late 2009, General Deepak Kapoor, who was then the Indian army chief of staff, instructed his forces to be prepared for a two-front theater under the nuclear threshold. His successor, General V. K. Singh, reiterated this position in early 2011. In the meantime, speaking to the Indian Parliament's Standing Committee on Defense, Defense Minister A. K. Anthony in late 2009 suggested that India will deploy strategic assets to the northeast of the country, where Arunachal Pradesh was designated as a disputed territory by China. Indeed, official records of China from the early 2000s started depicting this region as "southern Tibet." It was also around this time that China started issuing stapled visas to residents of Kashmir—indicating that Indian-held areas are disputed while the Pakistan-held Kashmir areas are not. China is investing heavily in Pakistan-held northern areas as well, with unconfirmed reports of troop presences. Also, the defense establishment in India, given the successive upgrade of the dual-use infrastructure projects and military deployments in Tibet, had elevated Indian threat perceptions from low to medium levels vis-à-vis China, although there is not yet a clear and present danger.

Along the political spectrum as well, the Indian establishment, despite calling China a "strategic partner" since April 2005, has been viewing China's rise with concern. Speaking to the Council on Foreign Relations in the United States, Prime Minister Manmohan Singh stated in late 2009 that an "assertive" China is of concern to India. Later, he reportedly told Indian newspaper editors that China is striving for "low-level equilibrium in South Asia" to the detriment of Indian interests.

At the diplomatic level, too, there has been a lively debate on the impact of China's rise on India. For instance, the then external affairs minister, speaking to the National Defense College in New Delhi, stated on November 5, 2008, that China's rise is a concern for India in three main areas: China's aggressiveness, its anti-satellite capabilities, and its competition for resources. This position had been reiterated by the foreign secretary and national security adviser in different fora—indicating the across-the-spectrum consensus in India on the impact of China's rise. The commercial sector in India as well has expressed concerns about increasing trade deficits, discrimination against Indian companies in China, and Chinese discrimination against Indian pharmaceuticals, software, and other products, and their worries are reflected both in the slow progress in agreeing to China's proposal for a free trade area and in the increasing anti-dumping duties by India on Chinese goods. China's diplomatic and military pressure in the withdrawal of the Oil and Natural Gas Corporation from the South China Sea is contributing to the bilateral woes as well.

Overall, then, these developments indicate an emerging geopolitical and strategic rivalry between New Delhi and Beijing, although both have admittedly been engaged in multilateral cooperation on issues such as protecting the United Nations Charter, climate change proposals, and similar positions against trade protectionism. Nevertheless, these multilateral efforts so far have not led to a resolution of the bilateral problems, and indicate the limitations in bilateral understanding.

TERRORISM

A second issue of concern for India has been incidents of "cross border" terrorism. Since 2001, India has been explicit in mentioning this issue as the number one security challenge to the country. Until the 1990s, most of the terrorism-related incidents could be traced to Kashmir, where an estimated 60,000 people have been killed. In the recent period, however, several Indian cities, including New Delhi, Jaipur, Kolkata, Varanasi, Hyderabad, Ahmedabad, Bangalore, and Mumbai, have been targeted. The Indian establishment has accused Pakistan's Inter-Services Intelligence Agency of aiding, training, and supporting terrorist groups. There are also instances of small arms seizures from Bangladesh and Myanmar. In light of the intended withdrawal of the International Security Assistance Force from Afghanistan, the issue of defeating international terrorism and stabilizing the peripheries has become a major concern for several countries in the region, including India. As a countermeasure, India has been making joint efforts, for example, sharing intelligence, flagging the bank accounts of suspected terrorists, and constructing transportation corridors in Afghanistan with many countries, among them the United States, Russia, members of the European Union, China, and Japan. India also supported UN Security Council Resolutions 1267, 1373, and 1540 on this issue. However, it is not lost on India that China has shielded the Jamaat group (as with the Taliban prior to September 11) in the UN voting process.

ECONOMIC DEVELOPMENT

A third issue of concern for India is how to maintain the economic growth rates that are essential for lifting millions of Indians out of poverty. India recently announced that the share of the manufacturing sector as a percentage of GDP will be raised from the current 14 percent to about 29 percent (thereby raising employment) and that it will seek nearly $1 trillion from various sources to finance infrastructure projects in the next five years. As India's dependence on other suppliers for energy is expected to reach more than 80 percent, New Delhi also called for diversifying the energy basket (also due to the requirements of the Copenhagen and Durban climate change proposals) and exploring and securing energy pipelines. Nevertheless, given the intensification of the global financial crisis and eurozone crisis and the attendant capital squeeze, volatility in the stock markets, and rising energy and food prices, India is exploring the possibilities of establishing development funds, campaigning against trade protectionism, and the like.

INDIA'S NATIONAL STRATEGY

With a population of more than a billion, India has the responsibility to lift millions out of poverty. For this to happen, its overall national security paradigm should be aimed at long-term peace and stability in the neighborhood and retaining strategic autonomy in international and regional orders. Involving itself in internecine warfare with its neighbors would lead to a depletion of Indian strength and, worse, diverting precious resources for a war effort. Hence, India is attempting to craft a national strategy under which its sovereignty and territorial integrity needs are satisfied by gradually enhancing its conventional and strategic deterrence posture, while at the same time maintaining uninterrupted economic growth figures through mutually beneficial diplomatic, economic, and security arrangements. Enhancing India's comprehensive national power, both hard and soft, has engaged Indian attention of late. In retaining its strategic autonomy, India is also actively undertaking diplomatic and strategic measures to shape the international and regional order in a way that is conducive to India's interest in peace and stability.

> **India is actively undertaking diplomatic and strategic measures to shape the international and regional order in a way that is conducive to the growth of India's interest in peace and stability.**

In Asia, given the diversified challenges and architecture of the continent, India is attempting to craft a multipronged strategy to build an inclusive security architecture in the region. India is located geopolitically at the crossroads of high levels of economic growth

and prosperity, democratization, and even destabilization. Because India has neither irredentist nor territorial claims beyond its borders, New Delhi's approach is gaining wider support in Asia. Prior to the 1990s, several countries in Asia had expressed concern over India's growing military modernization, but its current naval modernization and ballistic missile and interceptor tests in 2007, 2011, and 2012 elicited hardly any negative responses in the region. Indeed, in a reversal, India could emerge in the future as a net security provider for some countries in the region.

India's position was clarified by Prime Minister Singh during his address to the Kuala Lumpur meeting of the East Asian Summit in 2005 when he mentioned that "Asia is India's destiny" (while in August 1949 Mao Zedong wanted China to be the "center of gravity in Asia"). In 1991, India initiated its "Look East" policy of attracting investments, technology, and exploring markets, initially in the Southeast Asian region and then in the East Asian region. Initiated primarily to overcome India's adverse balance of payments position, this policy is bearing fruit as demonstrated when India joined the ASEAN Regional Forum in the mid-1990s and then the East Asian Summit in 2005. In February 2001, the Group of Ministers in India declared that Indian security interests extended from the Persian Gulf to the Strait of Malacca, while the 2007 Indian maritime doctrine identified the Indian Ocean as the primary area of interest for the Indian navy, and the South China Sea and Gulf of Aden as secondary areas of interest. After the successful evacuation of more than 20,000 victims of the tsunami in Southeast Asia in 2005, India offered to help protect the Strait of Malacca from piracy incidents. Also, India initiated free trade area measures with ASEAN, while comprehensive economic partnership agreements were signed with South Korea and Japan. India is also toying with the idea of a free trade area with Taiwan, the European Union (EU), and other countries. Security dialogues with ASEAN, South Korea, and Japan have been intensified by India, especially in the maritime domain. In the Central Asian region, India's "extended neighborhood" includes bilateral and multilateral interactions, counterterrorism, and efforts to link the region with other parts of Asia through energy grids. India has supported the popular voices in the Arab Spring and the aftermath, although New Delhi was concerned about possible energy disruptions or price increases, as well as the safety of the six million Indians living in the region.

At the global level, India has been emphasizing the central role of the United Nations. India has also evolved strategic partnerships with the United States, Russia, the EU, Japan, China, and other countries, in that order of importance. Although Indian debates on the primacy of hard power in international relations have not yet crystallized, the acquisition and exercise of such power is noted. Specifically, it is noted in several quarters in India that the presence of U.S. forces in West Asia (Middle East) and other areas of the globe for counterterrorism efforts and the like has been conducive to maintaining uninterrupted energy supplies (as India is importing more than 80 percent of its energy needs) and the smooth transit of goods and services on the high seas.

Besides, India is a member of several multilateral institutions, such as IBSA (India-Brazil-South Africa) and BRICS (Brazil-Russia-India-China-South Africa). As the global commons

has been threatened in the recent period, whether in outer space, cyberspace, or in a maritime setting, India has also been participating in trilateral meetings with the United States and Japan, although a previous four-nation "core group" with the United States, Japan, and Australia failed to take off. To counter piracy in the Indian Ocean, in addition to maritime exercises with a number of countries, India has joined the sixteen-member ReCAAP (Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia). India has also hosted the first Indian Ocean Naval Symposium, a conclave of naval chiefs from more than 30 Indian Ocean states.

THE BALANCE BETWEEN MILITARY AND NONMILITARY INSTRUMENTS

The Indian ethos and national movement of the twentieth century emphasizes finding diplomatic and peaceful solutions to the problems in the region, while stressing respect for state sovereignty, nonintervention, promotion of international law and justice, avoidance of war and peaceful resolution of problems, and friendly relations with all countries irrespective of their political and economic systems. While many of these principles form the guiding spirit of Indian policies, in conjunction with the globalization process, India had been toying with the idea of pitching in its military forces to help alleviate the security needs of the region—specifically in the nontraditional domain, as mandated by the United Nations. One of the most successful stories in this effort is Indian participation in the United Nations Peacekeeping operations. India has sent nearly 100,000 troops, who participated in more than 40 of the nearly 60 peacekeeping operations so far under the UN flag—making India the longest-serving as well as the largest nation under this mission. Currently, India has contributed nearly 9,000 troops who are undertaking peacekeeping operations in eleven of seventeen UN operations in different continents. More than 100 members of the UN have been contributing troops to such missions, indicating the wider legitimacy of such projects internationally.

India has also explored military means to resolving conflicts in the region. However, any interventions were carried out at the request of the host country. For instance, India sent troops to Maldives and Sri Lanka in the late 1980s at the local government's request. India also provided protection for the African Union meeting in Madagascar when it sent naval vessels. In the nontraditional domain, India dispatched more than 26,000 sailors to rescue tsunami victims in Thailand, Indonesia, and Sri Lanka in 2005, as well as transport planes to Myanmar (during Cyclone Nargis), China (the Sichuan earthquake), and Japan (the Fukushima nuclear tragedy) for disaster relief measures.

In resolving interstate conflicts, confidence-building measures could be explored more extensively. Indeed, in 1996, India and China signed such measures in the military field

and have been able to stabilize the border areas with no-fly zones, no major military exercises using borders as strategic orientation, withdrawal of troops, local-level hotlines, flag meetings, and other strategies. The two armies have also conducted hand-in-hand operations, while the navies have executed joint search-and-rescue operations. These operations have helped prevent conflict between India and China, and the border areas by and large remain peaceful. Nevertheless, apart from conflict prevention, a second instrument of confidence-building measures—trust building—remains elusive. Meanwhile, India and Pakistan have initiated confidence-building measures in the nuclear field by agreeing to exchange data about each other's nuclear establishments and not to attack each other's facilities. In the past few years, confidence-building measures have been further expanded to include removing restrictions in cross-border trade and granting most-favored-nation treatment.

APPROACHES TO ASIAN SECURITY

Although bilateral issues can be effectively tackled at the bilateral level, as challenges to Asia have become more diversified and intractable during this age of globalization, India—like many other nations in Asia—needs to take into consideration the advantages of multilateral institutions and regional initiatives in resolving security problems. However, although the United Nations and the UN Security Council have been tasked with addressing international and regional peace and security issues, they were not able to resolve several issues in the past six decades. A number of regional organizations have emerged, including the Organization of African Unity, the Arab League, the Conference on Interaction and Confidence-Building Measures in Asia, the Shanghai Cooperation Organization, the Collective Security Treaty Organization, the South Asian Association for Regional Cooperation, and the East Asian Summit. Although these regional institutions have been able to put forward certain initiatives, major security problems affecting the regional order have not been resolved. Hence there is a need for new Asia-wide initiatives.

THE ROLE OF THE UNITED STATES

As the dominant global power, the United States is crucial to resolving Asian security issues. In Indian estimations, the United States is both integral to Asia and able to provide stability in the global commons—the space, cyberspace, and maritime domains. With its vast influence at international and regional levels, resources, rapid response capabilities across theaters, and the like, the United States is in a unique position to influence the Asian

order. Besides, the United States has allies in Asia—Japan and South Korea—and close links with the Philippines and Singapore.

Indian perceptions of the U.S. role in Asia are influenced by past experience, present cooperation, and future possibilities. Although the United States and India were in different camps during the Cold War—and sometimes in mutual acrimony, such as during the Bangladesh Liberation War—bilateral relations began substantially improving during the Clinton administration and improved more concretely during the Bush and Obama administrations. In early 2005, speaking at Sophia University in Tokyo, then U.S. Secretary of State Condoleezza Rice suggested that the United States was poised to help India become a major power in the twenty-first century. For India, such strategic signaling is as important as the Kissinger-Nixon visits to China in 1971–1972. Indeed, after this speech, U.S.-Indian relations exhibited unprecedented upward momentum—much like Deng Xiaoping's visit to the United States three months after the reform and opening policies were announced in 1978.

In 2005, the United States and India signed a ten-year defense cooperation agreement, and deals worth more than $12 billion are being discussed or implemented. In 2006, President Bush's visit coincided with the signing of the framework for maritime security cooperation and civil nuclear technology cooperation. Both states have conducted joint exercises for enhancing interoperability between their respective armed forces. Seventeen Malabar naval exercises have been conducted so far, while air-to-air exercises and army-to-army exercises have enhanced interoperability. India also has an ongoing dialogue with the United States (as well as with the United Kingdom) on peacekeeping missions. Eight joint working group meetings were conducted from 2000 to 2012 between the United States and India in this regard. Contributing further momentum, three strategic dialogues and 21 dialogue mechanisms have been conducted by the United States and India to date, with coordination and cooperation on a number of issues related to the international and regional order being discussed. The depth of these interactions is unprecedented.

> **Many Indians believe that while the United States is a game changer in the international system, it could potentially act as a wild card.**

Several initiatives at the regional, bilateral, and international levels have brought the United States and India together. However, a number of differences persist. Many Indians believe that while the United States is a game changer in the international system, it could potentially act as a wild card. For instance, when the "G2" proposal was made (and partly realized in the joint declaration of President Obama and Chinese President Hu Jintao in November 2009), or during the global power transition debate, New Delhi seems to have been marginalized, much as Tokyo, Seoul, Paris, or Berlin must have felt. Hence, as a cushion, New Delhi emphasizes strategic autonomy.

Asia is currently at the crossroads of several major, but uncharted, transitions. The region is exhibiting, simultaneously, many opportunities as well as challenges—with high eco-

nomic and technological progress, growing markets, a burgeoning middle class, and rising consumption levels coexisting with traditional and nontraditional security challenges and the specter of a potential power transition. The global commons are also subjected to strain as a result of this transition. In this context, the rise of China in the past two decades has led not only to economic opportunities but also to security dilemmas for many Asian countries. China's relentless assertiveness over the Yellow Sea, East China Sea, South China Sea, Indian Ocean region, and Kashmir, as well as its rising defense budget (the second largest in the world), military modernization toward the ability, at least to start with, to execute anti-access and area-denial missions in its peripheries, anti-satellite capabilities, and cyberattacks, have all driven some Asian countries to seek U.S. "rebalancing" in the region for long-term stability.

While the United States provided for hegemonic stability in the region for the past six decades, that stability is being challenged gradually by the rise of China. It is in this regard that India is making efforts to usher in an inclusive security architecture in the region for long-term stability. India's comprehensive strategic partnership with the United States, and the trilateral relationship with Japan as well, is also bearing fruit. In the judgment of the Indian mainstream, the United States and its allies in Asia contribute to the strategic rise of India, while the rise of China is posing concerns to India in South Asia, the Indian Ocean, and beyond.

There is also strategic uncertainty—specifically because China has not clarified how it would protect the global commons in a rule-based manner and according to universally acceptable principles. Some in India are concerned about the policy vagaries of successive U.S. administrations. Yet, given the irredentist encroachment of China on the global commons, India's policy choices are clearly veering toward the United States.

QUESTIONS POSED TO THE AUTHORS ON
STABILITY IN SOUTH ASIA

1 What are your country's strategic objectives in the geopolitical, economic, and military arenas in South Asia? How does your country intend to achieve these objectives? How does your country balance them with its ideological values?

2 What are the key strategic threats to your country's interests in South Asia? What are the policies pursued by your country to mitigate these threats?

3 What are your country's key objectives vis-à-vis the other two major South Asian states (Pakistan and China/India)?

  How do your country's relations with Pakistan affect your relationship with the other regional great power?

  What are your country's goals with regard to the smaller states of South Asia? How does your country manage relations with these states without alienating the other regional great power?

  What are your country's goals regarding Afghanistan and Myanmar, the key peripheral states of South Asia? How does your country manage relations with these two states without alienating the other regional great power?

4 What are the key nontraditional security threats in South Asia that implicate the region's major states and your country's interests? How does your country intend to manage these threats? In particular, is your country concerned by nontraditional security threats such as serious communicable diseases, natural disasters, water disputes, drug trafficking, and transnational refugee flows and illegal immigration? What role, if any, does your country perceive for South Asian states in managing these threats?

5 How does your country perceive the extant U.S. role in the region? What challenges, if any, does the U.S. role in the region pose to your country—and how is your country responding?

STABILITY IN SOUTHERN ASIA

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THE CHINESE DISCOURSE ON SOUTH ASIA

Despite sharing borders with six South Asian countries, the People's Republic of China has long attached insufficient importance to South Asia. Since entering the new century, however, the significance of Southern Asia to China has been upgraded and the Chinese government is paying more attention to its relationship with the region.[1]

Several factors have contributed to this evolution. Though in the Cold War era, China was obsessed with threats from the north and the east, believing there was a high risk it would be invaded by either of the two superpowers,[2] the U.S.-led war on terror in Afghanistan has forced China to look southwest. After China started its economic reforms in 1978, it gradually strengthened its ties with South Asia in general, and neighboring countries now are given "first priority" over major powers in China's foreign policy.[3] China has also improved its relations with the rising global power India, long viewed as hostile, going back to the 1962 border war, but now acknowledged to be rising into a global power. And China's strategy on the large-scale development of its western region has triggered the enthusiasm of local governments in Xinjiang, Tibet, and Yunnan to establish closer economic links with South Asia.

Chinese official documents have rarely touched upon the country's South Asia policy, and academic descriptions are also scarce. However, on the bilateral level, there are many, though not enough, official and academic discourses on China's relations with individual

South Asian countries, especially with India, Pakistan, Afghanistan, and Nepal, that, taken together, suggest the contour of China's present policy in Southern Asia.[4]

CHINA'S STRATEGIC OBJECTIVES AND THREAT PERCEPTIONS

Sharing a common border with China of around 7,000 kilometers, Southern Asia is critical to Beijing's interests. In terms of security, this region is particularly significant to the stability of China's three frontier provinces, Tibet, Xinjiang, and Yunnan, especially after the violent riots in Tibet in March 2008 and in Xinjiang in July 2009. With about 120,000 exiled Tibetans living in India and Nepal (including the Dalai Lama and the so-called Tibetan Government in Exile in India) and some Uighur militants based in the tribal areas of Afghanistan and Pakistan, the willingness and capability of these countries to cooperate are critical to China's efforts to counter secessionism in Tibet and Xinjiang.

Economically speaking, Southern Asia has a significant bearing on the development of China's western region, Chinese enterprises' "go global" strategy, and China's energy security. The subcontinent is a gateway to the Indian Ocean for China's western region. Southern Asia is already a major destination of China's overseas projects contracting, and with nearly a quarter of the world's population, the region holds great potential as a market for China's commodities and investments. With its geographical advantage in the Indian Ocean, the subcontinent plays an important role in safeguarding the sea lines of communication, on which China's energy importing and foreign trade are heavily dependent.

China views countries in Southern Asia as important partners in restructuring the regional and global institutions and fending off Western pressure on such issues as human rights and climate change.

Politically speaking, China views countries in Southern Asia as important partners in restructuring the regional and global institutions and fending off Western pressure on such issues as human rights and climate change. Countries in the region are committed to the one-China policy and have firmly supported China on the issue of Taiwan.

Against the backdrop of these multifaceted interests, China's strategic objectives in the region are to reinforce a friendly Southern Asia that is willing to extend support for China's efforts to safeguard its national unity and integrity; to promote a stable Southern Asia that is capable of ensuring the safety of Chinese citizens and investments in the region; and to build a prosperous Southern Asia that is likely to create more opportunities for China's sustainable development. Together, these objectives serve the fundamental task of China's foreign policy, that is, "securing a long-term and favorable external environment for China's development."

They also conform to the *mulin*, *fulin*, *anlin* principle of China's neighborhood diplomacy: "establishing an amicable, secure and prosperous neighborhood."

Since the end of the Cold War and the normalization of Sino-Indian relations, China has not perceived any serious strategic threats from Southern Asia. Indirect threats, however, abound. One that China is monitoring is the Indo-Pakistani rivalry. Because China shares borders with both India and Pakistan, any conflict between the two nuclear powers would force China to take sides and also have direct implications for the security of China's western frontier region. China is also keeping tabs on drug trafficking that originates in Afghanistan and Myanmar. Because of instability and poor governance in those countries, drug trafficking and organized crime have increasingly threatened to spill over into Xinjiang and Yunnan.

In addition to Afghanistan and Myanmar, uncertainty and instability in Pakistan and Nepal give rise to some troubling new trends. More and more, China feels the limits of these countries' capacity in keeping their commitments to China's specific interests, from ensuring the safety of Chinese citizens and investments in the region to countering Tibet- and Xinjiang-related secessionist activities. With China's increased distrust of the United States due to the American "pivot" to Asia, China is watchful of the U.S. military presence in Afghanistan beyond 2014 and the increasing strategic and defense cooperation between the United States and India.

CHINA'S APPROACHES TO SOUTHERN ASIA

Economic cooperation, cooperative security, noninterference, and regional integration are the four pillars of China's strategy to deal with the threats and achieve its goals in the region. Economic cooperation and development assistance are in the leading position, because China is convinced that economic interdependence reduces the chance of war between nations and that development prevents extremism and advances stability. China identifies economic cooperation as a stabilizer for its relations with India, which remain fragile due to the countries' unresolved border dispute. In the past decade, China-India bilateral trade achieved impressive progress with a 25-fold increase, from $2.9 billion in 2000 to $73.9 billion in 2011.

As for the rest of the region, China has continuously provided assistance for economic and social development of underdeveloped countries. This assistance includes grants, preferential loans, unilateral tariff reductions or exemptions, infrastructure projects, technological support, and personnel training. For example, China's aid to Afghanistan since the war on terror began in 2001 totals more than $220 million. And some Pakistan experts in China have strongly argued for a significant increase in Beijing's economic support for Islamabad because they are convinced that development is a good remedy for the current difficulties in Pakistan.

China regards confidence-building measures, security dialogue, and nontraditional security cooperation as a fundamental approach to increasing mutual trust with countries in the region. China insists on peaceful settlement of its border disputes with India and Bhutan, and while progress is sluggish, talks at least are under way.[5] Apart from the 1993 and 1996 agreements on confidence-building measures in their border areas, China and India set up a new mechanism in January 2012 to deal with border incidents such as transgressions or infiltrations due to the divergent understanding of where the line of actual control lies.[6] China has an annual defense dialogue with India, and the two countries intend to start a maritime dialogue as well.

China also proposes and supports the notion of countries in the region solving disputes among themselves through dialogue and negotiation. In this regard, China has manifestly shifted its stance on the Kashmir issue, from endorsing Pakistan's position on self-determination for Kashmiris to supporting a peaceful solution through Indo-Pakistani negotiation, which conforms to India's bilateralism on this issue. To counter drug trafficking and organized crime in the region, China has strengthened its cooperation with neighbors on intelligence sharing, joint operations, joint patrols, personnel training, and alternative cultivation. In the past decade, China has succeeded in promoting alternatives to opium in Myanmar and Laos and has committed to duplicating this model in Afghanistan. After thirteen Chinese sailors were killed on the Mekong River by drug traffickers in the Golden Triangle region, China started joint patrols on the river with Myanmar, Laos, and Thailand at the end of 2011.

> **Nontraditional security issues have become a new domain for China to strengthen its relations with Southern Asia.**

In fact, nontraditional security issues have become a new domain for China to strengthen its relations with Southern Asia. For instance, China and India have worked closely in the international negotiations on climate change. And China has always been quick and proactive in providing humanitarian relief for the region after natural disasters.

Noninterference into other countries' internal affairs is a guiding principle of China's foreign policy. China is convinced that noninterference enables it to maintain good and stable relations in case other countries undergo regime changes. It also helps dispel smaller countries' apprehensions of China's mounting strength. Along with China, India and Myanmar were among the initiators of the Five Principles of Peaceful Coexistence, of which noninterference is one. It is partly because of the principle of noninterference that China has rejected the West's invitation to send troops to Afghanistan.

Thanks to the growing external demands for China's shouldering more international responsibilities and the rapid increase of the overseas presence of Chinese citizens and investments, the principle of noninterference is under great debate, both inside and outside China. As long as China is part of the developing world and feels the sustaining threat of the West's interference in its domestic affairs, from Taiwan to Tibet to human rights, the

principle will surely remain in place. That should not be taken to mean that China is reluctant to provide public goods or that it is incapable of protecting its overseas interests, but merely that China will depend more on UN authorization and diplomacy.

China's cooperation with Southern Asia has gone beyond bilateralism. As early as 1999, the Yunnan Province of China put forward the Kunming Initiative, calling for subregional cooperation among southwestern China, northeastern India, Myanmar, and Bangladesh. China also supports regional integration; it became an observer of the South Asian Association for Regional Cooperation in 2006 and has since donated $600,000 to the organization's development fund. China is keen to integrate its western and southwestern region with Southern Asia through physical connectivity. For example, it plans a high-speed rail link to Myanmar and direct rail connections to Nepal, Pakistan, and even India. Local development blueprints in Yunnan and Xinjiang will significantly benefit from this integration as well.

THE CHINA-PAKISTAN-INDIA TRIANGLE

Since the end of the Cold War, a fundamental shift of China's South Asia policy has been to take a more evenhanded approach in its relations with Pakistan and India and to make Sino-Pakistani and Sino-Indian relations independent of each other. During his 1991 visit to New Delhi, Li Peng, the Chinese premier at the time, told reporters that "China is willing to maintain and develop friendly relations with India, Pakistan, and all countries in South Asia on the basis of the Five Principles of Peaceful Coexistence." The real message was that better ties between China and India should not affect China's links with Pakistan and that China's existing friendship and cooperation with Pakistan should not block improvement of Sino-Indian relations. Since then, China has established an all-weather strategic cooperative partnership with Pakistan and a strategic and cooperative partnership for peace and prosperity with India.

However, strong inertia persists, both inside and outside all three countries, in viewing the China-Pakistan-India triangle through the old-fashioned prism of confrontation, with China and Pakistan on one side and India on the other. Pakistan still hinders China-India relations, with India complaining of China's support for Pakistan in areas such as defense ties, civilian nuclear cooperation, and counterterrorism. It is true that China is much closer strategically to Pakistan than to India, despite its much tighter economic links with India. China and Pakistan portray each other as brothers, while the China-India strategic partnership is still a work in progress. Also, a weaker Pakistan—suffering from economic difficulties, terrorist attacks, natural disasters, tensions with the United States, and increased strength inferiority to India—expects more support from China. The respective distrust between China and India and between China and the United States, and the strengthened

Indo-U.S. strategic partnership has upgraded the significance to China of the China-Pakistan all-weather friendship.

Therefore, before the final settlement of the protracted, unresolved China-India border dispute, China's friendship with Pakistan will remain an irritant to India's dealing with China. However, since China and India have agreed to look at their relationship in a broader context and perceive a stable and cooperative partnership as a guarantee to their simultaneous rise, neither of them wants to see the Pakistan issue derailing their relations. Indeed, China has encouraged Pakistan to improve its own relations with India.

CHINA AND THE SMALLER STATES OF SOUTHERN ASIA

Thanks to the globalized economy of China and its heavy dependence on Middle East oil, the significance of the smaller South Asian countries—Nepal, Bhutan, Bangladesh, Sri Lanka, and Maldives—has dramatically increased. Bangladesh and Sri Lanka have become two of the major destinations for China's overseas contracted projects and investments, while, because of their specific geographical locations, Sri Lanka, Maldives, and Bangladesh are relevant to China's energy security. With nearly 200,000 Chinese tourists visiting Maldives each year, Beijing can no longer neglect the small island country in the Indian Ocean.

India is highly alert to the strategic implications of China's increased economic presence in these countries, which New Delhi has long perceived as being in its backyard. The fact that the subcontinent is part of China's neighborhood as well is usually overlooked, while some strategic elites in India construe China's closer links with the smaller countries as China's encirclement of India, the so-called string of pearls strategy. To allay India's concerns and protect China's interests as well, China has reassured India through bilateral talks that its intention in the region is purely economic and security-related, not to contain India. It also has discouraged the smaller countries from taking sides between China and India, with some Chinese scholars going so far as to advocate China-India cooperation with the smaller countries. Indeed, in his January 2012 visit to Katmandu, Chinese premier Wen Jiabao told Nepalese Maoist prime minister Baburam Bhattarai that China thought "it would be better and fruitful for Nepal to maintain good relations with India."

Afghanistan adds a layer of complexity to relations in Southern Asia. Besides being relevant to China's Xinjiang region in terms of countering secessionism and counternarcotics efforts, Afghanistan's stability is directly related to the stability of Pakistan, another important neighbor of China in the region. Therefore, China expects an independent, stable, and friendly Afghanistan. The latest China-Afghanistan strategic partnership indicates China's long-term commitment to Afghan reconstruction and reconciliation. As for India's role in Afghanistan, China views its development assistance as impressive and positive. Its only concern is about an ongoing rivalry between India and Pakistan mainly on the Kashmir

issue and their confrontation in Afghanistan. Many Chinese scholars believe that unless this rivalry is eased, Pakistan will continue to see Afghanistan as a vital strategic bulwark against India, while India views Afghanistan as another strategic front against Pakistan. If India tries to create an anti-Pakistan Afghanistan and Pakistan tries to create an anti-India Afghanistan, reconciliation in Afghanistan would be far harder to achieve. Furthermore, China would be put into a very difficult situation in dealing with all three neighbors. To cope with such a challenge, China would probably develop a strong and independent bilateral relationship with Afghanistan, while encouraging a sustainable Indo-Pakistani rapprochement.

Myanmar, which shares a border of nearly 2,200 kilometers with China, has a great deal of strategic significance for China. Beyond the stability of the border areas that are affected by drug trafficking and ethnic insurgency in Myanmar, China is concerned about the security of its enormous investments in Myanmar's infrastructure and power plants. The country's geographical location also provides China shorter and more convenient access to the Indian Ocean, which well serves both the development of the poor economies in southwestern China and China's energy security by providing an alternate route for energy supplies to travel. It is against this backdrop that China is building an oil and gas pipeline across Myanmar into southwestern China. Therefore, a friendly regime in Naypyidaw is vital for China to fulfill its objectives. However, a friendly regime is not necessarily a military regime or an isolated Myanmar. On the contrary, China would be more comfortable dealing with a "normal" Myanmar with political reconciliation. In fact, the People's Republic of China used to have friendly ties with the democratic regime in Myanmar. During Myanmar's military rule, China even supported the idea of UN mediation to bring about political dialogues with the democratic forces led by Aung San Suu Kyi.

With respect to the current political reform, China will observe the noninterference principle and engage with all of the political factions in Myanmar. On the growing influence of India in Myanmar, China would like to see more cooperation than competition with India, because it would not only be beneficial to a constructive Sino-Indian relationship but would also help allay Myanmar's fears of overdependence on China. In the past two decades, as both China and India developed close relations with the military regime in Myanmar, they were actually on the same page on fending off the West's criticism of their respective Myanmar policies. In the ongoing China-Myanmar pipeline project, two Indian oil giants, the ONGC and GAIL, are involved.

CHINA'S PERSPECTIVES ON THE U.S. ROLE IN SOUTHERN ASIA

China's views on the U.S. role in the region are conflicting. On the one hand, the U.S.-led war on terror in Afghanistan serves the security interests of the United States and its allies and protects the region to some extent from religious fundamentalism and extremism.

China also identifies the United States as a crucial partner in preventing another military conflict between India and Pakistan. On the other hand, China is very suspicious of U.S. intentions in terms of its bonhomie with India, its military presence in Afghanistan, and its growing influence in Myanmar. Many Chinese are convinced that a major objective of the U.S. China policy is to contain China. The latest U.S. pivot to the Asia-Pacific has reinforced China's apprehension, particularly since American officials, such as Secretary of State Hillary Rodham Clinton, have repeatedly defined the subcontinent as part of the Asia-Pacific region.

China sees a great potential of cooperation with the United States in South Asia and regards cooperation as an effective way to build mutual trust.

China's apprehensions originate from a deep distrust of the United States, which is mainly predicated on what Beijing considers U.S. disrespect for China's core interests (such as Taiwan and Tibet), the Sino-U.S. ideological divergence, and other issues. However, a stable Sino-U.S. relationship is vital for China's rise, and, as such, China is open to coordination and cooperation with the United States in Southern Asia. With the cozy memory of their past cooperation in the 1970s and 1980s and their present common interests in maintaining peace and stability in the region, China sees a great potential of cooperation with the United States in South Asia and regards cooperation as an effective way to build mutual trust. During President Barack Obama's visit to Beijing in 2009, the two sides agreed to "work together to promote peace, stability and development in that region [South Asia]."

Therefore, China's perspectives on the U.S. role in the region are dynamic due to the ups and downs of the general Sino-U.S. relations. In dealing with the potential threat of the United States from Southern Asia, China seems to be pursuing a complex but more or less conflicted strategy of improving and stabilizing Sino-U.S. relations and strengthening its cooperation with countries (particularly India) in the region, while at the same time preparing for the worst through military modernization. China's military modernization arose mainly from the threat of Taiwan's independence and the challenge of the worldwide revolution in military affairs. As China's economy goes global, the military is also expected to have the capability (which is mainly noncombatant) to protect China's overseas citizens and interests.

If China is convinced that the United States is encircling it by strengthening military alliances and security partnerships all around China's periphery, China will feel compelled to upgrade its military preparedness. That is a situation China does not want to see, because it not only puts China and the United States into a security dilemma but also could put China and India into a security dilemma. Manifestly, it is urgent for China and the United States to improve their mutual trust by constructing "a new type of relationship between major powers" that rejects confrontation.

NOTES

1. China shares borders with Afghanistan, Bhutan, India, Myanmar, Nepal, and Pakistan. China has always perceived Myanmar as a Southeast Asian country, but for purposes of this project, it is included here as a South Asia country. Three other South Asia countries, Bangladesh, Maldives, and Sri Lanka, are not adjacent to China.

2. In the 1950s, China regarded the United States as its primary enemy. In the 1960s, China was faced with dual threats from the United States and the Soviet Union. In the 1970s, the Soviet Union was China's major adversary.

3. China has officially outlined four pillars in its foreign policy platform: major powers are the key, surrounding areas are the first priority, developing countries are the foundation, and multilateral forums are the important stage.

4. This analysis represents the author's personal understanding of China's mainstream opinions on the region. Due to the limitations of the author's wisdom, misperceptions or misinterpretations may be more or less inevitable.

5. China and Bhutan have not yet established diplomatic relations. It was reported that China's border talk with Bhutan has gone smoothly. Because of the special relations between India and Bhutan, a China-Bhutan border treaty seems unlikely to be clinched ahead of a China-India border treaty.

6. This is called the Working Mechanism for Consultation and Coordination on China-India Border Affairs.

STABILITY IN SOUTHERN ASIA

SRINATH RAGHAVAN

INDIA AND THE REGION

Southern Asia is India's closest and most vital sphere of strategic action. Yet the region presents challenges for India at several levels. New Delhi's relations with many of its South Asian neighbors remain fraught, if not hostile. Political problems aside, there is a structural reason for this state of affairs.

India is by far the largest, most populous, and most powerful country in the region, where it accounts for 70 percent of population, nearly 80 percent of GDP, and about 75 percent of trade. Its conventional forces are the largest in the region. Moreover, India shares a boundary with every country in the neighborhood, but most of them do not share a border with another South Asian country. Given India's potential to be the 800 pound gorilla in the room, it is not surprising that most of its neighbors regard it with wariness and resentment, if not suspicion and fear.

Managing these thorny relationships tends to sap India's resources and attention, and so restricts its strategic vision and energy to subcontinental vistas and concerns. India's ability to play a more engaged role on the global stage is contingent on its capacity for ensuring a modicum of stability in its relationships with subcontinental neighbors. The assumption, held by some sections, that India can bypass its pesky neighbors and focus on its wider aspirations does not hold up in light of its history over the past six decades. Stability in its ties with its Southern Asian neighbors remains a key geopolitical objective for India. As Prime

Minister Manmohan Singh recently observed, "India will not be able to realize its own destiny without the partnership of its South Asian neighbours."

Further, India's economic ties with its subcontinental neighbors remain weak. South Asia is among the least integrated regions of the world. Official intra-regional trade, to take one indicator, hovers around 5 percent of total trade of the countries of the region. This is abysmally low not just in comparison to other regions of Asia (the corresponding figure for East Asia exceeds 50 percent), but also when contrasted with its own potential for growth through trade. South Asia has three attributes that make it extremely well-suited for integration by trade: the highest population density in the world; linguistic and ethnic overlap across borders; and the presence of a large number of cities close to the borders.

This potential has not been adequately tapped for at least two reasons. One of the legacies of colonialism has been ambivalence about free trade in most South Asian countries (with the early exception of Sri Lanka). This problem was compounded by the economic and political consequences of partition, which not only set the stage for many protracted disputes but also overturned the political economy of the region. Before 1947, the region had an almost unimpeded flow of goods, money, people, and ideas. Restoring these links is a central economic objective for India. An integrated Southern Asian market would make eminent economic sense as well as help take the sting out of uneasy political relationships.

Finally, South Asia confronts a series of nontraditional security challenges, ranging from public health to migration to water. Environmental issues, in particular, pose serious problems for the region as a whole. The mountain and deltaic ecosystems of Southern Asia are closely integrated and cut across state boundaries. The region is unique in the sheer size of population, scarcity of rainfall, reliance on agriculture, scope for mega-dam projects, and vulnerability to climate change. Environmental and natural resource management will perhaps be the biggest and most potent challenge for the countries of Southern Asia. Climate change and changes in patterns of resource use are already imposing strains on existing bilateral arrangements between India and its neighbors.

> An integrated Southern Asian market would make eminent economic sense as well as help take the sting out of uneasy political relationships.

Further, new challenges are likely to arise from China's approach to dealing with environmental issues, especially water, in the Tibetan plateau. Until now, India has dealt with its neighbors over water issues as the upper riparian. But today, with China emerging as the key actor in this domain, India will have to work from a rather different vantage point. The challenge for India (and other South Asian states) is to move toward creating cooperative mechanisms for dealing with these common challenges.

These strategic objectives fit well with the political values espoused by India. Indeed, the present lack of stability in Southern Asia stems partly from the absence of a normative

consensus among countries of the region. Despite considerable cultural overlap and commencing their political lives from similar starting points, their political trajectories have been rather different. A genuinely shared commitment to democracy and human rights and against violence and militarism has proved elusive.

INDIA'S PURSUIT OF STRATEGIC OBJECTIVES

Working toward these objectives has proved trickier than outlining them. For one thing, many of the major political disputes—Kashmir or river waters, for instance—are truly nettlesome and not easily resolved. India's approach has been to keep a dialogue going on such problems while simultaneously focusing on other, more tractable, issues. Sustaining such a process over long periods becomes difficult owing to domestic preoccupations and to other developments that affect the overall quality of the relationship. For another, given the geography and ethnic and linguistic overlap in the subcontinent, domestic politics both in India and its neighbors impinges upon efforts to stabilize their relationships. India tends to become a factor in the domestic politics of some countries, such as Sri Lanka, Bangladesh, and Nepal. Fear of, or antagonism toward, India could be used by politicians to bolster their standing at home. The obverse of this is that India has had to pick its friends within these countries—a situation that complicates its dealings with these countries over time. Federal politics in India, too, imposes constraints on New Delhi's ability to pursue long-term objectives in the region.

In the economic domain, India has emphasized its willingness to bear asymmetric burdens to foster regional integration. India's economic growth in the last two decades has positioned it to credibly play the role of a regional dynamo. Its neighbors are gradually realizing the unprecedented opportunity that India presents for their growth prospects. India's free trade agreements with Sri Lanka and Bhutan, and the trade and transit agreement with Nepal, have showcased the potential benefits of regional economic integration. It is no coincidence that Bangladesh wants to greatly enhance trade and connectivity with India or that Pakistan has at last agreed to confer most-favored-nation status on India. Once the largest recipient of foreign aid, India has now begun giving aid to its neighbors. Afghanistan, Bangladesh, and Sri Lanka are recent beneficiaries of this turn in Indian foreign policy.

Then again, India's ability to stay the course remains open to question. For a start, the notion that India should accept such burdens is opposed by groups within the country: political parties that do not see why India should go the distance to help out "obdurate" neighbors; and trade lobbies that stand to lose from economic integration. Further, India's record of delivery on economic initiatives and projects has at best been uneven.

PAKISTAN AND INDIA'S THREAT PERCEPTIONS

If India's track record in pursuing its strategic objectives in Southern Asia has been mixed, so has its ability to deal with threats to its regional interests. Some of these threats stem from the weakness of democratic governments in the region and from policies pursued by states in the region against sections of their own populations. Neither of these is very amenable to being dealt with by Indian policy, except at the margins or in extremis. Two other threats—from terrorist and insurgent groups operating against India with external support and from the instability arising from the possession of nuclear weapons by Pakistan—emanate principally from Pakistan, so it would be useful to see them in the context of the wider relationship.

In dealing with Pakistan, India has sought at once to work toward achieving a degree of normality in the relationship and to cope with present and potential threats posed by Pakistan. The nature and magnitude of these threats stem from both the strengths and the weaknesses of the Pakistani state. The challenge of crafting a sensible policy is compounded by the presence of multiple centers of authority and influence in Pakistan.

Over the past decade and more, New Delhi's approach to Pakistan has oscillated between the extremes of comprehensive engagement and almost complete disengagement.

Over the past decade and more, New Delhi's approach to Pakistan has oscillated between the extremes of comprehensive engagement and almost complete disengagement. Both of these approaches have their proponents in India. The former adhere to the proposition that since war is not an option, the only way left is to keep the dialogue processes going—irrespective of terrorist attacks on India being mounted with support from state and non-state actors in Pakistan. The latter believe that India should hold out the dialogue as a reward for good and cooperative behavior on the part of Pakistan. Neither of these amounts to a strategy, that is, an attempt to find an optimal relationship between objectives and the available means. The challenge for India is to fashion a mix of positive and negative incentives to influence Pakistan's behavior. The former could include resolution of second-order disputes such as the demilitarization of the Siachen glacier, enhanced trade, and cooperation on energy and natural resources. The latter would require, among other things, the adoption of punitive strategies in the event of a major terrorist attack originating from Pakistan.

Such a reconfiguration of strategy is also imperative to addressing the problem of strategic instability resulting from Pakistan's possession of nuclear weapons. Pakistan assumes that the presence of nuclear weapons will prevent India from retaliating forcefully to any subconventional action initiated by it. To be sure, nuclear weapons have imposed caution on Indian decisionmakers during crises. Yet there is no reason to assume the futility of force. There has been a debate in India since the 1999 Kargil crisis about space for limited conven-

tional war in a nuclear context. The problem, however, is that much of this debate remains in thrall to the governing assumptions of Indian military strategy: the need to capture and hold ground, even if only on a limited scale. New Delhi needs to focus on developing coercive strategies based on standoff capabilities.

THE IMPACT OF CHINA

An important factor in the Indian-Pakistani relationship is China. Pakistan's much-vaunted all-weather friendship with China has provided it the capabilities to pursue a confrontational course with India while sheltering it from potentially adverse consequences. Indeed, over the past five decades China has regarded Pakistan as a useful counterweight to India in South Asia. The relationship with Pakistan has enabled Beijing to pursue an India strategy on the cheap, while maintaining its own focus on other areas of more immediate interest. There is little reason to believe that China will abandon this approach anytime soon, and there is some reason to believe that the strategic relationship with Pakistan might actually be tightening. China is, of course, concerned about instability and extremism in Pakistan. Terrorism is on the agenda of the strategic dialogue between China and India. New Delhi believes that there may be marginal payoffs to engaging China on terrorism originating in Pakistan. But there is no illusion that China can help nudge Pakistan toward a less antagonistic stance vis-à-vis India.

On the economic front, though, China could potentially play a positive role. There is some evidence to suggest that the recent moves by Pakistan toward granting most-favored-nation status to India may have been quietly encouraged by China. Two factors seem to be at work here. The strains in Pakistan's relations with the United States and the impending U.S. troop drawdown in Afghanistan are likely to result in a gradual erosion of American aid to Pakistan. China, however, seems unwilling to fill the breach all by itself and would like to see Pakistan's economy standing on its own feet. Further, China's advice to Pakistan is consonant with the manner in which its own relationship with India has evolved over the past two decades.

India's relations with China are a complex amalgam of elements of competition and cooperation. Economic ties between India and China have burgeoned in recent years. Yet this relationship remains asymmetric, with a mounting trade surplus in China's favor. Politically, the two countries have found it easier to work together on global issues such as climate change, and in arenas such as the BRICS (the developing economies of Brazil, Russia, and South Africa in addition to India and China). Yet, the core bilateral dispute on the boundaries remains unresolved. On the security front, the peace and tranquility agreements have helped avoid military standoffs along the disputed borders. Yet, the gap between the overall military capabilities has widened in China's favor, as to a lesser extent have the local military balances along the borders.

In consequence, India's approach to China is aimed at deepening the cooperative aspects of the relationship while seeking to redress the asymmetries and challenges inherent in it. Thus New Delhi is attempting to gain greater market access in China for Indian firms, while encouraging Chinese firms to invest in India, especially in infrastructure; to try to work with China on areas of mutual interest on multilateral and global forums, while pursuing a political dialogue to settle the boundary dispute; to enhance military confidence-building measures, while working toward upgrading its military capabilities along the borders and developing a maritime strategy that will play to India's strengths in the Indian Ocean region and beyond. In a nutshell, India aims for the normalization of its ties with China while trying to curb China's ability to impinge on its geopolitical space and interests.

> **New Delhi's ability to counter Chinese influence in South Asia is not just a function of what China wants to do, but also of what India can do.**

If India's relationship with Pakistan has complicated its ties with China, it is mainly due to the manner in which China has sought to use Pakistan vis-à-vis India. China's support for Pakistan, especially in the military and nuclear domains, remains a matter of serious concern for India. Ideally, India would like to de-link its relationship with China and with Pakistan. But this does not seem a realistic prospect in the foreseeable future. Indeed, if Pakistan's dependence on China increases in the years ahead, New Delhi may have to start thinking about Pakistan as a subset of the larger challenges posed by China.

THE SMALLER STATES OF SOUTHERN ASIA

China's growing economic, political, and security footprint in other parts of Southern Asia—Nepal, Sri Lanka, Bangladesh—complicates India's dealings with these countries. India's objectives vis-à-vis these (and other smaller countries) have been to reassure them politically, to hold out the prospect of deeper economic engagement, and to ensure that their internal politics and policies do not undermine India's interests. China's growing presence in these smaller countries offers them some leverage against India, which they have unsurprisingly sought to use. That New Delhi needs to develop a strategy to counter this trend is widely understood. But the contours of such a strategy remain contested in India. Part of the problem stems from differences in assessing China's aims in expanding its clout in the region. Is China seeking to develop strategic facilities in these countries—the so-called string of pearls—in order to militarily contain India? Or is it primarily aimed at securing access to raw materials and an opening to the Indian Ocean? Are these necessarily mutually exclusive? Is every form of Chinese engagement in these countries necessarily inimical to India's interests? These questions are being debated in India with increasing urgency.

But this much is clear: New Delhi's ability to counter Chinese influence in South Asia is not just a function of what China wants to do, but also of what India can do. India needs, above all, to build its credibility in delivering on its promises and intentions. This is important not just to secure India's interests in the region but also to ensure that it does not see itself as being locked in a zero-sum game with China in these countries. After all, India's interests in Southern Asia do not stem from the fact of a growing Chinese presence.

In its engagement with Southern Asia, India has quite properly paid attention to the two key peripheral states of Afghanistan and Myanmar. Both of these countries are important to India's security and geopolitical objectives. Both have in the recent past provided havens for insurgent groups that have operated against India. Ensuring that this situation does not prevail in the future remains a central objective of Indian policy. However, the importance of Afghanistan and Myanmar transcends these narrowly defined security concerns. For one thing, they are the gateways of South Asia to Central and West Asia, and to Southeast Asia. India's ability to project its influence in these wider areas is contingent on its relationship with these two countries. For another, they are crucial to South Asia's economic links with other parts of Asia. Afghanistan and Myanmar are the hinges on which the open economic doors of Southern Asia will revolve.

India's relations with Afghanistan and Myanmar are not antithetical to China's interests in these countries. Indeed, in Afghanistan, India has expressed its willingness to work with China in joint projects for economic development. Further, India has stated that the Shanghai Cooperation Organization could be a useful forum for considering the problems of Afghanistan after the drawdown of U.S. troops in 2014. As far as Myanmar is concerned, India is a very distant competitor to China in securing markets and influence. China's presence and clout in Myanmar far outstrip those of any other country, including India. Nevertheless, both China and India support and stand to gain from the ongoing reforms in Myanmar. There is little reason to believe that China will lose sleep over India's engagement with Myanmar. That said, India's relationship with Myanmar could help Myanmar reduce its reliance on China. Recent developments, such as placing Chinese-sponsored hydroelectric projects on hold, underline the fact that Myanmar's relationship with China may not always work in its interests. Indeed, as its reforms gather pace, Myanmar will want to move away from excessive dependence on China and diversify the range of its external engagements. India could potentially play an important role here.

INDIA'S VIEWS ON THE U.S. ROLE IN SOUTHERN ASIA

The other great power that has historically played a major role in Southern Asia is the United States. Over the past decade, India's objectives in the region have been broadly congruent with those of the United States. This is particularly true with respect to India's

views on key threats to its interests: the fragility of democratic systems in the region, terrorism, and the presence of nuclear weapons and fissile materials in Pakistan. When it comes to tackling these problems, though, there are differences of emphases and priorities between New Delhi and Washington.

Take the case of Afghanistan. Most Indian observers have called for a stronger military commitment by the United States to contain the insurgency and prevent a reversion to the pre-2001 situation. Yet New Delhi has come around to appreciating the limits imposed by American domestic politics on its policy toward Afghanistan. Similarly, the Obama administration's propensity to view India's role in Afghanistan through the prism of Pakistani sensitivities was a sticking point. But it now seems that Washington would like India to play a more prominent role in Afghanistan. Such differences notwithstanding, India sees the need and opportunity to work with the United States in stabilizing Afghanistan post-2014.

On Pakistan, too, India appreciates the importance of working with the United States while being clear-eyed about to what extent and in which directions this cooperation can progress. American pressure on Pakistan to desist from supporting terrorist and insurgent groups against India is certainly useful, but it can go only so far. Pakistan remains critical to American security objectives. Whatever the crests and troughs in that relationship, it is unlikely that the United States will pressure Pakistan in the manner desired by India. That said, cooperation with the United States on counterterrorism has had important payoffs for India. New Delhi aims to continue working on areas of strategic convergence with the United States while mitigating the fallout from operational differences. After all, the Indo-U.S. relationship is about more than just South Asia.

PART III

SECURITY IN THE GLOBAL COMMONS

QUESTIONS POSED TO THE AUTHORS ON
SECURITY IN THE MARITIME COMMONS

1 How does your country perceive the current global maritime order? Does the current global distribution of naval and maritime capabilities as well as the long-standing body of customary international law relating to freedom of the seas favor your country's current and emerging maritime interests?

2 What is your country's position on the United Nations Convention on the Law of the Sea (UNCLOS)?

Does your country believe that UNCLOS supersedes existing customary international law relating to the freedom of the seas?

In the perception of your country, what are the new rights bestowed by UNCLOS in contrast to previous customary international law relating to maritime affairs?

Does your country believe that it is permissible to enforce these new rights through the use of military force?

In which maritime areas are the UNCLOS-derived rights most pertinent to your country?

3 What maritime conflicts is your country currently embroiled in? How does your interpretation of UNCLOS support your country's position in these conflicts?

4 Does your country believe that these maritime disputes are best dealt with through independent national solutions, negotiated transparency and confidence-building measures, negotiated treaties with robust verification measures, or oversight by international organizations?

5 How does your country perceive the extant U.S. naval superiority in the maritime commons? What challenges, if any, does U.S. superiority in the maritime commons pose to your country, and how is your country responding?

6 What does your country believe is the ideal regime for managing the maritime commons? What would be the key characteristics and principles underlying such a regime?

SECURITY IN THE MARITIME COMMONS

ZHANG HAIWEN

PERCEPTIONS OF THE GLOBAL MARITIME ORDER

The current global distribution of naval and maritime capabilities as well as the long-standing body of customary international law relating to freedom of navigation favors China's current and emerging maritime interests. China has long held that freedom of navigation is a universally accepted principle of customary international law as well as an important regime established by the United Nations Convention on the Law of the Sea (UNCLOS), which must be respected and implemented by all states. Generally speaking, the current global maritime order is equitable and reasonable, and not only in the international community's common interests, but also in China's national interests. China has manifested its stance on respecting and safeguarding freedom of navigation in many ways, including legislation and government statements, for a long time.

Freedom of navigation is highly significant for China's economic development. No matter whether China is importing immense quantities of raw materials, energy, automobiles, and high-tech products or supplying world markets with products "Made in China," the point is that China mainly depends on the sea for trade and transportation. Therefore, safeguarding freedom of navigation is as significant for China as maintaining the sustainable development of its economy. Any suggestion that China opposes freedom of navigation is completely baseless.

UNCLOS supersedes existing customary international law relating to freedom of navigation. With regard to navigation on the sea, UNCLOS has designed an elaborate set of

regimes. It has carried forward traditional rules of customary law and renewed freedom of the high seas, and it has developed multiple regimes for navigation in territorial seas, straits used for international navigation, archipelagic waters, and other bodies of water. As for navigation in exclusive economic zones, UNCLOS Article 58 has made specific provisions with due consideration of the interests of both the international community and coastal states. First, paragraph 1 endows all states, "whether coastal or land-locked," with freedom of navigation in the exclusive economic zones, Second, paragraph 3 also provides for their duties when states exercise their rights of freedom of navigation, and in this way safeguards the interests of the coastal state.

Overall, UNCLOS provides diversity in the regime of navigation and thus transforms the traditional singular regime. From this perspective, UNCLOS to a great extent has actually revised and updated the rules of customary law related to freedom of the seas. "Freedom of the seas" has been replaced by "freedom of the high seas," which has been classified in six kinds in the Article 87 of UNCLOS. Relating to navigation at sea, the basic principle now is "freedom of navigation" but not "freedom of the seas," according to UNCLOS.

> **Any suggestion that China opposes freedom of navigation is completely baseless.**

The United States has the world's most powerful navy, and this naval superiority represents a powerful tool for the United States to pursue American global hegemony and intervene in regional affairs.

As is well known, China and the United States have different views regarding military surveys, military investigations, and reconnaissance conducted in the exclusive economic zone (EEZ). The United States regards such activities as exercising "freedom of the seas" and labels China's opposition to these activities as a "threat to freedom of the seas." China's position is that U.S. military vessels or other survey or research vessels in service of the U.S. Navy are abusing the rights endowed by the UNCLOS on other states when conducting such activities and collecting maritime data in China's EEZ. Moreover, the United States also sends warships to convoy those vessels for such activities and to arrogantly showcase U.S. naval superiority in China's EEZ. China strongly opposes the forced entry of the U.S. vessels into China's EEZ for military survey and reconnaissance activities, and apart from making diplomatic representations, China sends law enforcement vessels to stop the illegal entry of the U.S. vessels in its EEZ.

From the perspective of international law, the dispute between China and the United States arises from different interpretations and applications of the concept, which is freedom of the seas in name but freedom of navigation in practice. Although freedom of the seas is recognized by all states as an important, time-honored rule of international maritime law, what exactly is freedom of the seas? No precise definition can be found in any treaty or any official document of an international agency, including UNCLOS. Nor is there any specifically identified conduct or activity under freedom of the seas or a definition of marine scientific research or any classification of related conduct.

Looking at U.S. practices, one can obviously deduce that freedom of the seas is understood by the United States as doing anything it wishes. The United States totally ignored the fact that under UNCLOS there is only "freedom of the high seas," but not "freedom of the EEZ."

China holds that UNCLOS provides freedom only for the high seas, not for freedom of the seas in general. UNCLOS, which carries forward the high sea regime of traditional international maritime law, clearly provides for freedom of the high seas in Article 87: (a) freedom of navigation; (b) freedom of overflight; (c) freedom to lay submarine cables and pipelines; (d) freedom to construct artificial islands and other installations permitted under international law; (e) freedom of fishing; and (f) freedom of scientific research. There are three freedoms applicable to EEZ as provided in paragraph 1 of Article 58, which reads,

> In the exclusive economic zone, all States, whether coastal or land-locked, enjoy, subject to the relevant provisions of this Convention, the freedoms referred to in article 87 of navigation and overflight and of the laying of submarine cables and pipelines, and other internationally lawful uses of the sea related to these freedoms, such as those associated with the operation of ships, aircraft and submarine cables and pipelines, and compatible with the other provisions of this Convention.

However, these three freedoms are not unconditionally applicable to EEZs, for paragraph 3 of the same article also regulates that

> In exercising their rights and performing their duties under this Convention in the exclusive economic zone, States shall have due regard to the rights and duties of the coastal State and shall comply with the laws and regulations adopted by the coastal State in accordance with the provisions of this Convention and other rules of international law in so far as they are not incompatible with this Part.

Obviously, in the modern international maritime legal system, the ambiguity about freedom of the seas to which the United States has stuck has gone out of existence. The so-called freedom of the seas exercised by the United States in China's EEZ is actually freedom of navigation as defined in the UNCLOS. Therefore, according to the clear provisions of Articles 87 and 58, this freedom cannot be interpreted as the absolute freedom to carry out any activity. However, in the process of nominally exercising freedom of the seas but practically exercising freedom of navigation, the U.S. vessels, taking intensive Z-shaped routes continually, were collecting maritime data through marine surveys and investigations. These actions and activities were far away from the purpose of navigation or in relation to vessel operation. They were not in conformity with the purposes provided for by UNCLOS, nor were they directly relevant to the voyages of the vessels. Naturally, these activities should abide by other relevant rules. The U.S. conduct in collecting China's maritime data in the name of freedom of the seas was an abusive, ambiguously applied use of freedom of navigation, or freedom of the high seas. In recent years, no other state has sent

vessels to break into another state's EEZ for a military survey and investigation without the state's prior consent.

UNCLOS SHOULD BE HIGHLY VALUED

The signing and approval of UNCLOS in 1982 was a milestone in the history of modern international maritime law. UNCLOS is the main international law observed by all states with regard to any activity on the sea. In 1994 UNCLOS officially came into effect. By October 4, 2012, there were 164 state parties.[1] In China UNCLOS was approved on May 15, 1996, by the nineteenth session of the Eighth Standing Committee of the National People's Congress, and it took effect on July 7, 1996.

UNCLOS is a "constitution for the oceans" established through the joint efforts of the international community in the spirit of understanding and collaboration. Carrying forward the rules of traditional maritime law, UNCLOS has developed many new maritime legal regimes and has established an "umbrella-like" framework of legal order for the global oceans to facilitate their peaceful use and sustainable development.

UNCLOS is the embodiment and development of international practices of maritime laws up to 1982. It not only kept many rules of customary law, but also developed more legal regimes. The main contents of UNCLOS have two aspects. One elaborates on and refines traditional basic maritime legal regimes, such as those regarding territorial seas, contiguous zones, continental shelves and the high seas, and the other develops many completely new maritime regimes, such as those regarding exclusive economic zones, archipelagic states, islands, international seabed areas, protection and preservation of the marine environment, marine scientific research, development and transfer of marine technology, and settlement of disputes. UNCLOS has greatly expanded coastal states' maritime jurisdiction and in principle has regulated activities on the sea.

UNCLOS has become the charter for the global maritime order.

International practices since 1982 have demonstrated that UNCLOS has represented the direction of development of maritime order and has become the standard of maritime legislation and law enforcement for state parties and non-state parties alike. From this perspective, UNCLOS has become the charter for the global maritime order. But it is also because of the nature of a charter that there are a number of rules in UNCLOS that make ample room for legislation and law enforcement of the state parties, but also lead to international disputes that arise from different interpretations. UNCLOS has established a basic legal system, but it has also left a number of ambiguities that are inevitable since it is an outcome of negotiation and compromise. Generally speaking, the legal regimes established

by UNCLOS have been acknowledged and observed by most states in the world, and even states that have not approved UNCLOS are modifying their legislation and practices to move closer to its provisions. UNCLOS has a decisive influence over maritime affairs now and in the future.

The fact that UNCLOS has been accepted and approved by most coastal states and many non-coastal states since it came into force in 1994 has proved its success. Of course, its greatest achievement is that it has successfully built an equitable and stable global maritime order.

UNCLOS EQUALLY ENDOWS COASTAL AND OTHER STATES WITH MANY NEW RIGHTS

Compared with previous customary international law relating to maritime affairs, UNCLOS has developed many new rights. First and foremost, UNCLOS endows coastal states with rights to greatly expand their maritime jurisdiction. The previous customary international law of the sea, represented by the four Geneva Conventions on the Laws of the Sea of 1958, entitled only coastal states to the territorial sea, the contiguous zone, and the continental shelf, while UNCLOS entitled coastal states to greater maritime jurisdiction extended from the narrow territorial sea to the exclusive economic zone 200 nautical miles wide from the baselines from which the breadth of the territorial sea is measured, even to the continental shelf beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured. UNLCOS endows coastal states with the sovereign right to explore and use natural resources in their vast EEZs and continental shelves. Second, UNCLOS has established many new regimes that entail many new rights. For example, Part III, Straits Used for International Navigation, establishes the right of transit passage. Part IV, Archipelagic States, establishes the right for archipelagic states and right of sea lanes passage. Part VIII, Regime of Islands, Article 121, paragraph 2, endows islands with legal status equal to that of land territory.

China does not believe that it is permissible to enforce these new rights through the use of military force. All the rights endowed by UNCLOS are on the basis of one principle, that is, for peaceful purposes. Therefore, the exercise of the rights endowed by UNCLOS in a sea area of national jurisdiction must be done in a peaceful way. At most, national maritime administrative law enforcement force, but not military capabilities, shall be used against illegal conduct. Of course, navies of all states may exercise the right to repress illegal activities such as piracy on the high seas, according to Part VII.

Although coastal states may use military force within their territorial seas against conduct violating their territorial sovereignty and endangering national security, plain common sense in legal studies would suggest that this right comes from state sovereignty and general international law rather than UNCLOS.

As a state party of UNCLOS, China enjoys the same rights and carries out the same duties as other state parties. China never agrees that any state party could have more rights in any part of the world oceans than other state parties. China agrees even less that any state that has not yet ratified UNCLOS could, presuming on its non-state-party identity, be scornful of or violate the rights endowed by UNCLOS on a state party.

UNCLOS AND THE MARITIME DISPUTES IN THE SEAS AROUND CHINA

What is a maritime dispute? Generally the term refers to states with opposite or adjacent coasts that make different claims of sovereignty, and maintain different stances, over islands or the maritime boundary delimitation. In this sense, maritime disputes involve coastal states' core interests, such as territorial sovereignty and crucial national interests or the jurisdiction of a coastal state. Other disputes, such as those involving marine natural resources, including oil and gas resources and fisheries resources, are actually connected with maritime boundary delimitation. Once the states in a dispute reach agreement on the delimitation, these natural resources disputes will be basically and correspondingly addressed and settled. Under certain circumstances, even before the agreement is reached, the states concerned may enter into provisional arrangements[2] concerning the exploration and use of the natural resources in the disputed area. Therefore, disputes involving natural resources should not be identified as a category. From the perspective of international law studies, other differences on the interpretation and applicability of UNCLOS provisions are part of the disputes within the scope of international treaty law.

Maritime disputes are a tough problem, one that has existed ubiquitously over the world's oceans for a long time. "Clearly, the extension of coastal states' sovereignty sea-wards has generated the potential for many new maritime boundaries and a host of overlapping jurisdictional claims and offshore boundary disputes. This latter point is amply illustrated by the incomplete nature of the maritime political map of the world. Of more than 400 potential maritime boundaries, only about 160 have been formally agreed" (Charney and Alexander, 1993 and 1998).[3] According to preliminary statistics done by the author, there are still 60 island disputes on the world's oceans. Some of these disputes are over the sovereignty of a singe island, and some are over the sovereignty of a group of islands, which includes reefs among other natural features.

> **Fairness is urgently needed for maintaining a peaceful and stable East Asia and for resolving maritime disputes peacefully.**

Like many other coastal states in the world, China is embroiled in some maritime disputes. So pursuant to what international law provisions shall these maritime disputes be

resolved? Here, it is necessary to point out that UNCLOS is not the only international law that can be used for settlement of maritime disputes.

First, while UNCLOS is an important part of the international laws, it may not negate or replace other rules or principles of general international law. Maritime disputes are between sovereign states, so any means or approach used to settle the dispute must conform with not only the provisions in Part XV of UNCLOS, but also the principles of the UN Charter and principles of general international law. UNCLOS clearly defines its relationships with other international laws in "[a]ffirming that matters not regulated by this Convention continue to be governed by the rules and principles of general international law." Generally speaking, UNCLOS has established an order for the world oceans, but it is not a "skeleton key," not the sole international law to apply in settling maritime disputes. UNCLOS and the rules and principles of general international laws are mutually compatible and mutually supplementary.

Second, from the common sense of international law, claims made over the territorial sovereignty of any island, as well as settlement of any island territorial dispute, must be done pursuant to the rules and principles of general international law, rather than through UNCLOS. UNCLOS deals only with maritime boundary disputes, not the settlement of island sovereignty disputes. UNCLOS has defined its own task and objective, which is "[r]ecognizing the desirability of establishing through this Convention, with due regard to the sovereignty of all States, a legal order for the seas and oceans…." Essentially, UNCLOS establishes the world's maritime legal order on the premise of respecting the existing territorial sovereignty. Therefore, this provision of UNCLOS is completely in accordance with the principle of "land controls the sea," which means that UNCLOS is based on respect for the existing sovereignty of all states and that none of its provisions shall be used as legal grounds to make new claims over territorial sovereignty nor to negate or modify the existing territorial sovereignty.

According to the UN Charter and UNCLOS, the first choice for settlement of a dispute between sovereign states is peaceful negotiation. Though embroiled in some complex disputes with some neighbor states, China believes that maritime disputes are best dealt with through independent national solutions. China firmly believes that the fundamental way to properly deal with and settle disputes lies in peaceful coexistence, dialogue, and collaboration. In this respect, China has experimented with many practices. Regarding the land boundary, except for some territorial border disputes with India and Bhutan, China has signed agreements on land boundary delimitation with 12 of its 14 neighbors through bilateral negotiations since the People's Republic was founded in 1949. Those agreements have delineated 90 percent of China's total boundary on land. Regarding the sea boundary, through diplomatic negotiation, China and Vietnam signed an agreement on the Beibu Gulf in December 2000 that delineated China's first maritime boundary. China also signed an agreement with Vietnam in 2011 on settlement of the South China Sea dispute. Both countries reaffirmed that their dispute shall be settled through diplomatic negotiation. China's experience shows that bilateral negotiations are an effective way to resolve boundary

delimitations. Therefore, China always holds that maritime disputes shall also be equitably settled pursuant to international law through peaceful bilateral negotiation.

Of course, China also joins other countries to make collaborative efforts to address problems and challenges concerning non-traditional maritime security. For example, at the ASEAN summit, Chinese Premiere Wen Jiabao pledged that China would donate RMB 3 billion to set up a South China Sea Foundation jointly with ASEAN.

CONCLUSION

Neither traditional maritime law nor UNCLOS has ever clearly defined freedom of the seas. What is its relationship with freedom of the high seas and with freedom of navigation in exclusive economic zones? What kind of activity can be conducted in the name of freedom of navigation in EEZ? Does it mean whatever kind of activity the United States chooses to practice? What should be the definition for these concepts? Obviously, on this matter, China and the United States hold different positions.

UNCLOS has established a relatively equitable and reasonable system for the order of the seas. Although many maritime disputes over the world oceans exist, they are not all caused by poor design of the UNCLOS regimes. The causes are many. Island disputes often have historical roots; sea boundary disputes as well as other conflicts are probably caused by different interpretations and applications of relevant rules and principles of general international law and relevant provisions of UNCLOS. If all states would strictly comply with international laws that are universally accepted by the international community, including UNCLOS and especially its Article 300,[4] peace and order would prevail in the global oceans.

UNCLOS does not provide the only grounds for settlement of all kinds of maritime disputes. UNCLOS shall not be the international legal grounds for settlement of island territorial sovereignty disputes, for example. Therefore, such a statement as "China's claim over its rights in the South China Sea does not comply with UNCLOS" is based on a total lack of common sense of international law studies. Maritime issues are not merely legal issues. Maritime disputes often involve sensitive political, economic, military, historical, and legal factors, as well as long and complex history, current national power, and long-term strategic interests among many other considerations. These considerations are beyond the provisions of UNCLOS. Therefore, settlement of maritime disputes shall be pursuant to international laws inclusive of UNCLOS, rather than to UNCLOS exclusively.

All states concerned are responsible for maintaining regional peace and stability and resolving disputes peacefully. It is an undeniable fact that there are disputes in the seas around China. However, these disputes have been around for decades. Why only recently have they become hot topics? Obviously, apart from many other causes, sensitive and complex geopo-

litical considerations play an important role. Whether or not these maritime disputes will be settled peacefully depends on the corporate responsibility of all states concerned. It is essential for all states to face up to the fact and acknowledge that fairness is urgently needed for maintaining a peaceful and stable East Asia and for resolving maritime disputes peacefully. Unfair support or continual criticism of any side is not at all helpful to settling the disputes.

NOTES

1. Division for Ocean Affairs and the Law of the Sea, "Chronological Lists of Ratifications of, Accessions and Successions to the Convention and the Related Agreements as at 4 October 2012," Office of Legal Affairs, United Nations, October 4, 2012, www.un.org/Depts/los/reference_files/chronological_lists_of_ratifications.htm#The%20United%20Nations%20Convention%20on%20the%20Law%20of%20the%20Sea.

2. United Nations, *United Nations Convention on the Law of the Sea* (*UNCLOS*), www.un.org/Depts/los/convention_agreements/texts/unclos/closindx.htm, Article 74 ¶ 2; Article 83 ¶ 3.

3. As quoted in Victor Prescott and Clive Schofield, *The Maritime Political Boundaries of the World*, 2nd ed. (Boston: Martinus Nijhoff Publishers, 2005), 1.

4. *UNCLOS*, Article 300. This clause, on the "[g]ood faith and abuse of rights," says that "States Parties shall fulfill in good faith the obligations assumed under this Convention and shall exercise the rights, jurisdiction and freedoms recognized in this Convention in a manner which would not constitute an abuse of right."

SECURITY IN THE MARITIME COMMONS

VIJAY SAKHUJA

PERCEPTIONS OF THE GLOBAL MARITIME ORDER

The maritime domain enables global connectivity and offers a seamless mode of transportation of merchandise in large volumes over long distances at economical costs across the world. Significantly, 90 percent of global trade moves over the seas and, therefore, issues of governance are pertinent to the safe and secure conduct of seaborne international trade.

In this context, "order at sea" has emerged as an important concept in international and security studies and has profound implications for maritime policy and operations. "Order at sea" can be understood in the context of laws and conventions that regulate maritime affairs. It is built on the foundation of a legal system encompassing internationally accepted conventions and treaties and supplementary national legislation to safeguard national interests, secure the smooth flow of maritime traffic, and prevent lawlessness at sea.

The 1982 UN Convention on the Law of the Sea (UNCLOS) establishes a comprehensive framework for the regulation and management of the ocean space. It provides the legal basis for states to claim territory, exercise jurisdiction, and establish sovereign rights over marine resources. UNCLOS also extends the freedom of the sea in the territorial sea under an "innocent passage" regime, sets rules for the protection of the marine environment, and empowers the International Maritime Organization to establish guidelines to ensure the safety and security of maritime transport. As will be discussed below, the United States, the world's most active naval power, has not ratified UNCLOS.

It is generally agreed that the UNCLOS regime has brought "order at sea," but several concerns persist that can cause suspicions among states. These arise from such issues as conflicting claims over territories, disputes over ownership and exploitation of sea-based resources, and varying understandings of the duties and responsibilities of state parties. The contentious issues can potentially generate tension among states, particularly when states exhibit assertiveness by declaring jurisdiction over disputed sea spaces, object to exploitation of marine resources by other parties, or challenge freedom of navigation.

At another level, states have expressed concerns and reacted sharply to varying interpretations of UNCLOS by other state parties, particularly involving the passage of foreign vessels (military and those engaged in exploration and scientific research) through their maritime zones by lodging protests, damaging equipment, and apprehending vessels. States have also invoked the jurisdiction of the International Court of Justice and the International Tribunal for the Law of the Sea (ITLOS) under Part XV of UNCLOS for judicial settlement of the disputes. In some cases, states have deployed naval forces that are viewed as viable instruments to secure national interests, protect maritime territory, and exercise jurisdiction in the exclusive economic zones (EEZ).

"Order at sea" has emerged as an important concept in international and security studies and has profound implications for maritime policy and operations.

The seas are now witness to governance under which states have obligations to enforce UNCLOS provisions, including policing and maintenance of maritime zones. At another level, states are zealously guarding the living and non-living marine resources in their respective EEZs and continental shelves and are unwilling to allow any maritime activity in maritime zones under their jurisdiction that could adversely affect their national interests. While enforcing international maritime conventions and treaties in their maritime zones, some states do not shy away from taking measures to penalize defaulters, thereby upholding maritime order.

The UNCLOS "nautical regime" has affected international relations among states, especially those with overlapping or disputed maritime boundaries. The contesting states are becoming more assertive, and the "legal and psycho-legal boundaries" offer states the legal basis for sending clear diplomatic signals. The situation is exacerbated when states respond through nationalist expression by enacting national laws, hoisting the flag, constructing scientific observation posts and military garrisons, and undertaking coercive or demonstrative military maneuvers. In some cases, their assertiveness is reflected in domestic political discourse as well as multilateral forums. This nascent order has helped states to settle contentious issues by encouraging them to take recourse in the legal process and engage in diplomacy. In essence, states appear to have redefined their policies and maritime strategy to ensure "order at sea."

INDIA AND SECURITY OF THE MARITIME COMMONS

India's role in the process of codification and development of the law of the sea has been significant. It actively participated in the Geneva Conference of 1958 and 1960 and the 1982 Law of the Sea Conference. It also facilitated diverse groups, including developing countries, to reach a common understanding of various issues related to the law of the sea. India voiced its concern on the inadequacy of the three-mile rule of territorial waters during the Geneva Conference of 1958 and had argued for a twelve-mile territorial limit. It also argued for the right of a coastal state to call for advance notice from foreign warships of their intention to transit through its territorial sea. The Indian arguments were based on the belief that a wider zone of the sea meant more security.

India's rights and jurisdiction in its EEZ are enshrined in Section 7(4) of the Maritime Zones Act, which is based on the maritime zones regimes as envisaged in UNCLOS. It also makes necessary provisions for the safety and security of marine resources, environmental issues, artificial structure, customs and fiscal matters in the EEZ. India signed UNCLOS in December 1982 and ratified it in June 1995. India's coastline is 7,500 km (4,660 miles) long, and its maritime zone jurisdiction stretches 2.172 million square kilometers (840,000 square miles).

India is an active participant in a number of UN bodies dealing with maritime issues—in addition to the International Maritime Organization, International Court of Justice, and International Tribunal for the Law of the Sea, it is active in the International Seabed Authority and the UN Food and Agriculture Organization—which have been entrusted to implement and enforce UNCLOS provisions.

India has consistently endeavored to uphold "order at sea" as provided for by UNCLOS and has enforced various UNCLOS provisions through legitimate actions with a view to protecting India's maritime interests. It also believes that UNCLOS codifies customary international law and reflects the contemporary understanding and practice of states pertaining to resources and usages of the sea. In addition, UNCLOS bestows sovereign rights on EEZs and the continental shelf in relation to ocean resources, transit passage regimes, and balancing the interests of the coastal states and maritime states. Perhaps the most innovative aspect of this regime is the creation of institutions to implement the new rights accrued by states, which encourages the resolution of any dispute through peaceful means.

In 1978, India established the Indian Coast Guard as its maritime enforcement agency. The coast guard has actively participated in counter-piracy and counterterrorism operations at sea, responded to oil spills, undertaken search-and-rescue operations, administered India's EEZ through policing and surveillance, and upheld UNCLOS provisions. Further, P. Chandrasekhara Rao, a prominent Indian jurist, is one of the judges of the International Tribunal for the Law of the Sea (ITLOS), and recently, Justice Dalveer Bhandari was elected as a judge in the International Court of Justice.

BOUNDARY DISPUTES AND SETTLEMENT MECHANISMS

India shares maritime boundaries in the Arabian Sea and the Bay of Bengal with seven countries. It has successfully reached bilateral boundary agreements with Indonesia, Maldives, Myanmar, Sri Lanka, and Thailand and trilateral boundary agreements with Indonesia and Thailand (1979) and Myanmar and Thailand (1995) to determine the tri-junction points in the Andaman Sea. However, demarcation of maritime boundaries with two other neighbors, Bangladesh and Pakistan, remain elusive despite long years of talks, discussions, and diplomacy. Also, the tri-junction with Bangladesh and Myanmar in the northern Bay of Bengal is yet to be established following the 2012 judgment in which the ITLOS awarded Bangladesh 111,631 square kilometers and Myanmar 171,832 square kilometers of territorial sea, the EEZ, and the continental shelf around St. Martin's and Oyster Islands.

India and Bangladesh have an overlapping maritime boundary in the Bay of Bengal and have yet to demarcate it. Bangladesh has consistently argued that India should give due consideration to the concave nature of its coast and rejected the equidistance approach. On October 8, 2009, Bangladesh chose to go for Annex VII arbitration under Part XV of UNCLOS through the International Tribunal for the Law of the Sea. The Permanent Court of Arbitration at The Hague is acting as the registry and providing facilities for Annex VII arbitration. A verdict in the case is expected in 2014. Unlike Bangladesh, India was keen to resolve the dispute bilaterally, and there had been several rounds of talks between the two countries with a strong hope that a mutually acceptable settlement could be reached. However, there is a strong belief in Bangladesh, particularly after the favorable verdict in the Bangladesh-Myanmar boundary dispute adjudication, that the ITLOS would be a viable option for settling the dispute with India. The foreign minister of Bangladesh has been quoted as saying, "We can always discuss the issue bilaterally with our neighbor, but we will not withdraw from the court for the sake of discussion." There is also a view in Bangladesh that if it loses the case, the ruling government could satisfy the domestic audience by pointing out that the dispute was adjudicated by a third party and that Bangladesh did not succumb to Indian pressures. The Indian side is quite confident that the adjudication will be in its favor because the ITLOS had struck down Bangladesh's argument for equity as the guiding principle for the delimitation process and has upheld the equidistance and relevant circumstances approach as the methodology to be followed in maritime delimitation cases.

Unlike Bangladesh, India and Pakistan have chosen to resolve bilaterally the maritime boundary dispute in the Sir Creek, a 96-km-long strip of water in the Rann of Kutch marshland in the Arabian Sea. Regular diplomatic dialogues and discussions over the past two decades by experts from the two states, however, have been unable to conclude an agreement. The twelfth round of the talks in June 2012 again culminated with no substantive outcomes, but both sides expressed their desire to "find an amicable solution of the Sir Creek issue through sustained and result-oriented dialogue." The boundary issue has affected fishermen from both sides in the dispute who are often apprehended and jailed by the

respective maritime enforcement agencies. Their release is typically marked by conciliatory statements from both sides. It is noteworthy that a Pakistan-India Judicial Committee on Prisoners has been established for "furthering the objective of humane treatment of either country's nationals arrested, detained or imprisoned in the other country." Also, a hotline has been established between the Indian Coast Guard and Pakistan Maritime Security Agency through which both chiefs talk to each other on issues relating to fishermen.

India's position in respect to its disputes with Bangladesh and Pakistan is in consonance with Chapter XV of UNCLOS. India also prefers a diplomatic approach toward boundary disputes and believes that diplomacy is a good tool with which to settle contentious issues. When diplomatic efforts fail, arbitration under UNCLOS is India's preferred approach. This approach is reflected in the attempts to settle its maritime dispute with Bangladesh.

Meanwhile, India has followed a "big-hearted" approach to accommodate the sensitivities of its neighbors, particularly on maritime boundary issues. For instance, in a maritime boundary agreement on June 28, 1974, India agreed to give Kachativu, an islet located 12 kilometers off the coast of Tamil Nadu, to Sri Lanka. Indian fishermen have visited the islet under a "historical right" to fish, but in recent times Sri Lanka has imposed strict restrictions. Consequently, fishermen are often apprehended by the Sri Lankan maritime enforcement agencies, but these incidents are managed diplomatically. In another bilateral incident, however—involving the shooting down of a maritime patrol aircraft by Indian fighter jets over Indian air space on August 10, 1999—Pakistan took the matter to the International Court of Justice. The decisive 14–2 verdict upheld India's contention that the court had no jurisdiction in the matter.

INDIA AND THE UNITED STATES: CONVERGENCES AND CONTRADICTIONS IN THE MARITIME COMMONS

It is true that the United States is a global maritime power and its preponderant naval superiority is visible across the oceans. It has bilateral defense and security alliances as well as arrangements and partnerships with a number of countries that have benefited from their engagements with the United States. These countries have enjoyed a "free ride" without having to commit resources for the safety of their sea lanes and other maritime interests.

India and the United States have cordial maritime relations, and their navies have developed a sophisticated engagement strategy. The existing Indo-U.S. maritime cooperation is primed on the Malabar series of naval exercises pivoting on operational interoperability, sharing of intelligence and information, joint training and exercises, sale of military hardware and regular interactions and exchanges between naval leaderships. These engagements have resulted in greater understanding between the naval forces of both countries and helped to develop a broad framework for operating together at bilateral and multilateral levels.

India has responded in mixed ways to U.S.-led multilateral naval and maritime initiatives—such as the Proliferation Security Initiative (PSI), 1,000-Ship Navy (TSN), Regional Maritime Security Initiative (RMSI), and Container Security Initiative (CSI)—which have been conceptualized for the monitoring, surveillance, regulatory, and safety mechanisms at sea and combating proliferation of weapons of mass destruction (WMDs) and terrorism by using maritime domain as a conduit. During Colin Powell's visit to India in March 2004, the United States had urged India to join the PSI. India has debated the issue of joining the PSI, but stayed away from any active participation. New Delhi has questioned the legality of the initiative and the legitimacy of the interdiction principle in that it has potential to undermine freedom of the high seas as envisaged under Article 87 of UN-CLOS. It is pertinent to mention that India enacted the Weapons of Mass Destruction and Their Delivery Systems (Prohibition of Unlawful Activities) Act of 2005, in accordance with UN Security Council Resolution 1540, which prohibits unlawful activities in relation to weapons of mass destruction and their delivery systems and for matters connected with WMDs. This shows India's commitment and proactive approach to curbing the proliferation of WMDs.

In the past, Indian waters have been probed by survey and research ships from the United States. The USS *Bowditch*, which is part of the U.S. Special Missions Program of the Military Sealift Command, was sighted 30 nautical miles from Nicobar Island in the Bay of Bengal carrying out a survey in 2002–2003. Significantly, the *Bowditch* specializes in gathering acoustical, biological, physical, and geophysical data that are extremely useful for submarine operations. Likewise, in 2001, the HMS *Scott*, a British Royal Navy survey vessel, was sighted in the northern Arabian Sea about 90 nautical miles from Porbandar in the Arabian Sea. The ship was engaged in military survey and when interrogated, the captain declined to disclose more information.

> **India prefers a diplomatic approach toward boundary disputes and believes that diplomacy is a good tool for settling contentious issues.**

Innocent passage through territorial waters is a highly contested issue. The extra-regional powers have always assumed the right of innocent passage, which also applies to warships. Littoral states have been reluctant to permit passage to warships through their territorial waters unless there is prior authorization or notification, given the colonial histories of the region. The issue also assumes importance because some warships of the extra-regional powers are nuclear-propelled and some carry nuclear weapons. These states have often adopted a policy to "neither confirm nor deny" the presence of nuclear weapons onboard. Naturally, there are concerns because such transits are politically and environmentally sensitive, and the coastal states do not possess the capacity to respond to a nuclear accident.

Likewise, the Nuclear Weapons Free Zone at sea is a sensitive issue. The issue of shipping nuclear wastes through certain ocean areas and EEZs, territorial seas, and straits also merits

attention. The issue has been controversial, since the littoral states have been restricting the passage of vessels carrying nuclear or other hazardous cargo, which can be potential targets of maritime terrorism and can pose risks of marine pollution.

A similar issue involves naval activities in exclusive economic zones. The EEZ regime in UNCLOS balances the competing interests of coastal states for greater control over offshore resources and those of other states for maintaining traditional freedom of actions in waters beyond territorial seas. Sovereign rights of a coastal state in the EEZ pose a threat to the mobility of navies, while the ongoing controversy over the EEZ regime includes the freedom of action of foreign navies within an EEZ. The issue of extra-regional navies conducting military maneuvers within the EEZ without requiring prior notification or authorization from the coastal state is highly contentious.

New Delhi is watching with interest the ongoing internal debate in the United States to ratify UNCLOS. The U.S. Senate, particularly its Republican members, is reluctant to ratify the treaty, and has argued that "the convention undermines U.S. sovereignty and that customary international law already protects U.S. interests." However, the chief oceanographer of the U.S. Navy has argued that "Accession to the U.S. Convention on the Law of the Sea is something the Navy believes in very strongly.… Other countries are, frankly, looking for the U.S. to be able to show leadership, and it is hard to show leadership in this treaty when we are not a party to it." The commandant of the U.S. Coast Guard, too, has noted that "This treaty seems to me to give us great understanding and predictability in how we deal with the freedom of the seas and how we operate on the seas. And as a law enforcement agency that's responsible for operating within the laws, this is just vital for us to carry out our responsibilities." Given the above views, India hopes that the United States ratifies UNCLOS and adheres to its various provisions.

We are living in a multipolar world that is witnessing the emergence of several power centers, and especially the rise of China and India. In the prevailing maritime scenario, the United States alone cannot act as a guarantor of freedoms of high seas. For India, "maritime multilateralism" is a useful tool with which to address contemporary transnational challenges such as piracy and terrorism.

At another level, the core of the Indian Navy's strategy is deterrence, and if deterrence fails, conflict termination on favorable terms is the accepted approach. The Indian Navy's inventory includes an aircraft carrier (two are under construction), a nuclear submarine (one under construction), conventional submarines, destroyers, frigates, landing ships, and a number of other patrol craft. The primary challenge for the Indian Navy comes from the Pakistan Navy, with whom it has fought three wars, and from China, which has been making forays in the Indian Ocean and has access to naval facilities at Gwadar in Pakistan and Hambantota in Sri Lanka. The Indian Navy's roles and missions also include countering nontraditional threats and challenges such as piracy, terrorism, drug smuggling, and gun running.

IS THERE A NEED FOR A NEW REGIME FOR THE MARITIME COMMONS?

The existing maritime zones regime under UNCLOS has codified the customary international law of the sea. It is quite a comprehensive regime, covering almost every aspect of the uses and resources of the seas and has served the interests of the state parties well. States have benefited from and feel satisfied with the provisions contained in UNCLOS and have suitably invoked the dispute settlement mechanism under Part XV for peaceful settlement of the maritime disputes. Also, the International Seabed Authority, created by UNCLOS, provides for "order at sea" with regard to seabed resources in the "Area" beyond the national jurisdiction.

UNCLOS does not deal with belligerence and therefore keeps the idea of "regulating military activities" outside its purview. UNCLOS provides insufficient guidance to deal with the emerging maritime challenges, such as combating piracy, terrorism, rising sea level due to climate change, and marine biodiversity.

The general view in India is that the provisions contained in UNCLOS are robust and comprehensive in dealing with various aspects of maritime domain and balancing the interests of coastal states and other maritime states. As to the suggestion that there be a new ocean regime, there is a need to understand that negotiating a new regime *de novo* would entail a huge politico-diplomatic and legal exercise and that mammoth efforts would be required to build "consensus" among states on highly complex maritime issues in the prevailing circumstances. Instead, amending UNCLOS could be a feasible option to incorporate necessary changes to respond to such emerging maritime issues as climate change. Further, *sui generis* regime may be negotiated to deal with a specific maritime issue like combating piracy and terrorism. In this regard, the process could be initiated in the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea.

CONCLUSION

UNCLOS has established appropriate structures and processes for effective "ocean governance," which have evolved through cooperative and congruent processes of consultations, consensus, and agreements. Numerous international agreements directly concern the ocean and the seas, supplemented by national laws for enforcing various provisions within maritime zones of state parties.

"Order at sea" is an issue of transnational interdependence and requires that all state parties of the 1982 UNCLOS cooperate through national and international legal instruments and institutions. It is also an area that requires a high degree of sensitivity of state parties' understanding and interpretation of UNCLOS, which can facilitate carving the niches of

mutual trust and confidence. Finally, discourse in international relations will be underpinned by the issue of "order at sea" in the future, which would necessitate the convergence and cooperative forms of processes between states, legal regimes, and agencies.

The views expressed in this article are the author's own
and do not reflect the policy or position of the Indian Council of World Affairs.

QUESTIONS POSED TO THE AUTHORS ON
SPACE SECURITY

1 What are your country's strategic objectives in space? How does your country intend to pursue those objectives?

2 In the perception of your country, what are the most pressing current and prospective threats to space security?

3 In the perception of your country, what is the appropriate balance between military and nonmilitary instruments for advancing space security? What specific instruments does your country emphasize as the best means of promoting space security?

4 Does your country believe that the critical challenges of space security are best dealt with through independent national solutions, negotiated transparency and confidence-building measures, negotiated space arms control treaties with robust verification measures, or oversight by international organizations?

5 How does your country perceive the extant U.S. civilian and military superiority in space? What challenges, if any, does U.S. space superiority pose to your country—and how is your country responding?

6 Does your country believe that space should be a weapons-free zone, or will strategic competition push your country to deploy weapons in space?

SPACE SECURITY

SHEN DINGLI

INTRODUCTION

China is accelerating the pace of its space program. The recent launch of Chinese taikonauts into space to join China's pilot space station is the latest sign of the country's growing role as a space stakeholder. At a time of regional and global shift of power in the Asia Pacific, such a move bears considerable consequences in the decades ahead.

Beijing is simultaneously making rapid progress in civil space programs with certain commercial use and inching its way toward tapping space for security purposes. This article examines China's notion of space security in the context of its space strategy. It further elaborates on the need to build space security cooperation among all space-faring countries.

OVERVIEW OF CHINA'S SPACE FOOTPRINT

China is a big and complex country of multifaceted features. As a developing country, its industrial base started from a shallow level and is still plagued by insufficient technological innovativeness. However, contemporary China deems itself a power and has invested strategically in selected areas of applied science and defense sectors; so far it has made impressive headway in those fields.

China began investing strategically in space science and technology, initially with Soviet assistance, since 1956, a year after China launched its nuclear-weapons program. China has attached particular importance to space exploration despite the country's internal ups and downs. Even during the turbulent time of the Cultural Revolution, when Beijing could not afford a tangible spacecraft, it still trained its astronauts.

Over the past four decades, China has embarked on a number of landmark space programs. It succeeded in launching satellites in the 1970s and in retrieving technology in the 1980s; it also conducted manned space exploration in the 1990s. In the 2000s, the People's Republic succeeded in orbiting the moon. It has launched a pilot space station, which recently hosted its first team of Chinese taikonauts. China is testing its heavy-class launch capability, which will eventually lift its space station–projected to happen around 2020. Presently, it seems to be preparing for a mission of retrievable manned landing on the moon in the next decade. This comes at an interesting time, when India is carrying out a similar program and the United States is facing some budgetary restraints on its own space programs.

Given its fast economic rise, China is increasingly being recognized as not only a regional power, but a global major power. China seems to enjoy such a position and is speeding up the development of its space program in order to match its power status. To Chinese leadership and mainstream strategists, space prowess will help assure the nation's power position in the world. In the past two decades, China has accelerated its space quest and has become a leading space power among developing nations.

APPROACHES TO SPACE STRATEGY

To understand the Chinese notion of space security, it is necessary to understand its space strategy. However, China has not plainly declared a space strategy, just as it has never issued a nuclear strategy or a national security strategy. This does not mean that China lacks a nuclear strategy: China does have nuclear doctrine-associated strategic thoughts, commensurate force development and deployment, launch posture, commanding and communication structure, as well as resources appropriation. Together, these elements constitute China's nuclear strategy. In the nuclear domain, China has decided not to compete with other powers for supremacy but will not allow itself to be overwhelmed. It has manifested a minimum retaliatory posture to allow freedom of its national security policymaking.

In space, China's policy proclamation, state regulations, and three successive government white papers have rendered the key parts of its space strategy clear: setting up space missions and priorities in regard to national interests and national security. These missions include manned space projects; lunar probing; high-resolution Earth observation, which is rather relevant in China's island disputes with other states; and assessing the feasibility of deep space exploration, including a mission to Mars.

Over the decades, the Chinese government has set up various agencies to administer the different aspects of its space endeavor—civil, military, and commercial. Nationwide, the country has built a wide and competent infrastructure in terms of research and design, manufacturing, launch, and service. Lately, the government has also made its space budget public, though a breakdown is still unavailable. With China's fast growth of space activities, it is becoming more evident that its space legislation lags quite a distance behind. So far the country has not had a single space law brought to the National People's Congress.

In the Chinese public domain, there exist a number of government, civil, and defense documents on space issues.[1] This chapter pieces together these government-promulgated rules and regulations to decipher China's space strategy and incorporates the perspectives of other pertinent authoritative documents prepared by government-sponsored think tanks.[2]

CHINA'S SPACE STRATEGY OBJECTIVES

The Chinese government has made it clear that the purpose of its space development is threefold: to explore outer space so as to expand the understanding of Earth and the universe; to peacefully tap into outer space to promote human civilization and social progress and to benefit all of humankind; and to meet the needs of China's economic construction, scientific and technological advancement, national security and social progress, while enhancing national science and cultural quality, defending state interests and lifting overall national strength.[3]

Obviously, these objectives are comprehensive in addressing both national interests and international common goods. The first two points are more of civil and global benefit, and the last one touches more on Chinese national interests, referring to the civil, military, and commercial sectors. In particular, China has stressed its paramount interest in the economy, science and technology, national security, and society.

To move forward in all these areas, China needs a favorable international environment where it could tap interstate cooperation for peaceful purposes, and sustain space solely for peaceful use as well. In this regard, China has succeeded in working with Russia on its civilian space program, but so far has failed to collaborate with the United States. While Beijing is competing with Tokyo and New Delhi in Asia's space race, it is more concerned about military space programs, especially that of the United States.

With those abovementioned principles in mind, China has put forward its guidelines for space strategy—innovativeness, selectivity, support, and leadership. Given its limited resources, China has to carefully choose areas to make breakthroughs and to achieve its rapid progress. It aspires to tap space advancement for progress in other high-tech fields. Beijing argues that space strategy has to be subjected to overall national development. To strengthen

the nation, "going space" has been strategically viewed as necessary to develop China's capacity in the economic, science and technology, defense, and social cohesiveness arenas. To this end, the government is committed to the long-term and stable growth of China's space development.

THE CIVIL DIMENSION: ECONOMIC SIDE

As a strategy, China has deemed its access to space of vital importance to national interests and is accelerating building its space industry and asset infrastructure in space. With its strength of central planning, China has focused on basic research and aspired to lead research in selected fields, as well as on implementing major projects to enable a leap in space engineering. China will focus on applied satellites and give proper priority to manned space exploration and deep space probing.

China has yet to develop the means and ways to substantiate its strategic objectives. In the civil sector, China has made significant strides, succeeding in retrieving satellites and in other areas such as multiple-satellite launching, cryogenic fuel, and added-on boosting technologies. So far, it has produced six series of satellites: retrievable remote sensing, communication, meteorology, science and technology, earth resources surveying, and navigation and positioning.

> **With China's fast growth of space activities, it is becoming more evident that its space legislation lags quite a distance behind.**

In addition, Beijing is launching a new series of marine satellites, while planning a project of small satellite constellations for environmental and disaster forecasting. It has succeeded in developing a number of high-performance satellite payloads and in making breakthroughs in key technologies such as public platforms of large Earth-orbiting and geostationary satellites. It is also noticeable that China has made significant progress in micro-satellites. Recently, Chinese authorities made public that the country has invested $6.2 billion in total on its manned space program and has already yielded some $16 billion in return.[4] It expects that the economic yield will triple by 2015.

China has also made important headway in the new generation of rocket carriers, including a liquid-oxygen/kerosene engine with a thrust of up to 120 tons, as well as an oxyhydrogen engine with a thrust of 50 tons, preparing for its next stage of heavy lifting. It is constructing its fourth space launch center in Hainan, in addition to those in Jiuquan, Xichang, and Taiyuan. In the past decade, China has carried out impressive manned space missions, and it is pushing deep-space exploration starting with moon orbiting and landing.

To further implement this strategy, China will continue conducting major projects on its manned space program, lunar exploration, high-resolution Earth survey system, and

new rocket carriers. In particular, it has achieved spacecraft docking, either unmanned or manned, preparing for launching its R&D space science research program on a space laboratory with periodic manned operations. For uploading payloads, Beijing plans to lift up to 25 tons of payload to near-Earth orbit and 14 tons of payload to Earth synchronous transfer orbit. It is also conducting research on space telescopes, space astronomy, astrophysics, and space life science, among other projects; strengthening surveillance of space debris; and creating an early warning system for space monitoring.

MILITARY DIMENSION: AIR-SPACE INTEGRATION

As mentioned, China has not neglected developing space for national security interests. In this regard, its space strategy and nuclear strategy will both serve its national security strategy. While nuclear strategy, to some extent, manages the balance of power on Earth, China's space strategy would extend such a balance to outer space, serving the purpose of stabilizing international relations among nations.

Because China does not pursue global dominance through nuclear supremacy, it has maintained a minimum nuclear deterrent for national security and independence. In the same vein, China does not seek space hegemony through militarizing outer space, though it could not live with space dominance by America or any other state. China's concern about space weaponization dates back to the Reagan era in the 1980s, when the U.S. Strategic Defense Initiative took off. Such concerns have kept reverberating through subsequent U.S. administrations, as each president has continued various versions of missile defense and space military programs.

For its part, China has so far signed all the UN-sponsored international agreements on the peaceful use of space. In light of U.S. missile defense plans and the various military uses of the space, China has proposed at the Conference on Disarmament an ad hoc committee to negotiate a treaty on the Prevention of an Arms Race in Outer Space and has linked this—for over a decade without success—to a U.S. proposal to negotiate a Fissile Material Cut-off Treaty.

When China finds the ground-based asymmetrical balance of power is upset by the United States extending its military power into space, it develops the fear that the earthly balance could get out of sync. Beijing could thus feel under pressure to restore the balance. If international diplomacy fails to forestall unilateral space militarization, China could consider exploring its own R&D for a space defense program as part of its space strategy in order to preserve strategic deterrence through the space dimension.

It has been recorded that China conducted a successful anti-satellite (ASAT) weapons test on January 11, 2007, with a ballistic missile, which was termed by the Chinese government as a "satellite experiment" that created debris.[5] There has also been suspicion that China

might have shot a ground-based laser beam on a U.S. space asset, although this allegation has been denied by the Chinese government. These ground-based capacities of kinetic energy and beam energy have received international attention over the past few years. There have also been reports of China deploying several reconnaissance and communication satellites in space for security purposes.

Exactly three years after its ASAT test, China carried out a successful mid-course interception test of a ballistic missile on January 11, 2010. This prompted further speculation about China's military space strategy, in that such missiles could eventually use not only the atmosphere but also space. Speaking on the occasion of the sixtieth anniversary of the Chinese Air Force in 2009, General Xu Qiliang, the air force commander at the time who is now vice chairman of the Central Military Commission, pointed out frankly that as the major powers are shifting toward air-space integration under the circumstances of informatization, China has also established its own air force strategy as "air-space, and offense-defense integration."[6] There has also been some suspicion in the West that China's spacecraft program might carry out defense-related missions, for instance, carrying payloads of mini-satellites for defense purposes. This has also been rebuffed by the Chinese government as well as by some Western analysts.

CHINA-U.S. COOPERATION FOR SPACE SECURITY

With China's continuing rise, it has attached increasing importance to accessing space for peaceful purposes. However, China's interest in this part of the global commons has raised Western concerns that Beijing might use such this area for dual purposes—both peaceful and defense ends—although it is hard to tell that defense is necessarily "un-peaceful." Overall, the Western concerns are related to the possible defense part of China's space program and the dual-use nature of China's civilian space program, which could carry out security missions that could still be perceived as "peaceful." Likewise, China has similar concerns about the U.S. space program.

> **China does not seek space hegemony through militarizing outer space, though it could not live with space dominance by America or any other state.**

Despite mutual suspicion, the Chinese and U.S. space programs and ambitions are not on the same page, with China apparently far behind the United States in technological sophistication. But China seems likely to continue advancing its program, in both the civil and defense sectors as well as the commercial sector. It is unlikely that the United States has not noticed China's rapid development in this regard. In fact, there has been a sort of space race going on among Asian countries, especially China, Japan, and India. At the same

time, the United States is facing a more stringent fiscal situation for its space program. In President Barack Obama's FY 2011 budget request to the U.S. Congress, his administration proposed to freeze for three years parts of programs that are not related to defense or security.

The Chinese and U.S. space strategies could have some co-relationship, with China aiming at U.S. levels of space attainment while choosing its objectives in line with its limited resources. Following, thirty years of economic growth, Chinese resource scarcity is posing less of a challenge in particular areas. Partly pressed by this trend, the United States has to reassess its own space strategy in order to assert its leading position in the world. Such a limited "race" in the civil sector is not all negative and could result in healthy competition and even cooperation between the two countries.

The military part of their respective programs and strategies needs to be handled with caution. The United States deems the free use of space crucial for a Pax Americana,[7] but the unrestrained use of space is not authorized by the international community and probably never will be (though the United States does not necessarily need its blessing to act). American dominance of space is unacceptable to most of the independent powers on the planet for fear of tilting the balance of power to their disadvantage. So they would take counteraction to rebalance the power whenever possible, as they may believe that by doing so, they are also acting for peace. Though America is a hyperpower at present, China's economy could catch up in the next decades, enabling it to contribute more human and financial resources to its own space pursuit. The United States and China, and all other states, should work collaboratively to prevent a counterproductive competition from ensuing in the next few decades.

Space cooperation presents a constructive alternative to U.S.-Chinese mutual suspicion. Much could be possible in the civil sector: from joint research on meteorological conditions in space to space law, and from joint space flights to joint monitoring of space debris, to name a few examples. Such collaboration could potentially reveal some aspects of the countries' respective space programs that would otherwise be kept protected, but a properly handled reciprocal exchange that adds to transparency and confidence-buidling could generate more trust and stability in the bilateral relationship and the global system.

This is especially the case at a time of China's rapid ascendance. With China's fast growth, the United States is developing more concerns in regard to China's future intentions. President Obama's rebalancing strategy for the past two years has been to check and balance China's outreach in the Asia Pacific, which has in turn upset China. An unhealthy competition could potentially ensue, to no one's benefit. With Obama's reelection, China and the United States need to reset their relations on a healthy track, based on dialogue and followed by a cooperative program. Space security offers such a venue for the two states in order to dispel distrust for their own benefit and the global good.

NOTES

1. These include *China's Aerospace* (Beijing: State Office of Information, 2000); *China's Aerospace in 2006* (Beijing: State Office of Information, 2006); *China's Aerospace in 2011* (Beijing: State Office of Information, 2011); *State Outline of Medium/Long-Range Development and Planning in Science and Technology (2006–2020)* (Beijing: State Council, 2006); *Administrative Rule of Space Object Registration* (Beijing: Commission on Science and Technology in National Defense, 2001); and *Temporary Administrative Rule of Permit on Civil Space Launch Project* and associated *Procedures of Application and Processing* (Beijing: Commission on Science and Technology in National Defense, 2002).

2. See, for instance, *2050: Roadmap of China's Development in Space Science and Technology* (Beijing: Chinese Academy of Science, 2009); and *Space Weather Strategy Plan* (Beijing: National Science Foundation, 1999).

3. See, for instance, State Office of Information, *China's Aerospace in 2011.*

4. "China's Present Cost of Total Manned Space Program at RMB $39b," www.china.com.cn/news/2012-06/24/content_25723767.htm, June 24, 2012.

5. See Ashley J. Tellis, "China's Military Space Strategy," *Survival* 49, no. 3 (Autumn 2007): 41–72; and Shen Dingli, "China's Defensive Military Strategy: the Space Question," *Survival* 50, no. 1 (February/March 2008): 170–76.

6. "China's Air Commander: Chinese Air Force Shall Strengthen Air-Space War-Fighting Capability," November 6, 2009, http://military.people.com.cn/GB/1076/52966/10327787.html.

7. The U.S. Space Command stated that "control of space is the ability to assure access to space, freedom of operations within the space medium, and an ability to deny others the use of space, if required." See, United States Space Command, *Vision for 2020*, February 1997, www.gsinstitute.org/gsi/docs/vision_2020.pdf, under the section of "Control of Space" (accessed November 14, 2012).

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SPACE SECURITY

BHARATH GOPALASWAMY

INTRODUCTION

Space security, a subject that at the beginning of the last decade received relatively scant attention in New Delhi, has moved up the priority list of India's national security managers. The event that galvanized their attention and the broader debate on space security in India was China's successful anti-satellite (ASAT) weapons test in 2007. That event highlighted the long-term global threats to India's considerable space assets. It also brought home to Indian policy planners the necessity of deductive long-term planning for a comprehensive space policy. The principal debates on space security in India now concern the utility of developing kinetic kill ASAT technologies and the proposed International Code of Conduct for Outer Space Activities. These two subjects combine the military-realist and the normative-legal aspects of policy. Gradually, however, India's space and national security managers have begun to grasp the significance of developing independent space situational awareness capabilities, as well as the more mundane but immediate threat posed by expanding space debris.

There is thus far no literature on Indian space security that comprehensively catalogues how leading Indian national security managers view the subject. Nor is there literature that provides an overview of the technologies and infrastructure that India would need in order to achieve its strategic objectives. This essay attempts to fill that gap. It has two parts. The first catalogues India's expanding military space footprint over the past decade

and the short- and medium-term planning concerning technologies and capabilities within the Integrated Defense Staff, India's tri-service military planning agency. The second part addresses four issues that now constitute India's space security agenda: kinetic energy (KE) ASAT technologies, space debris, space situational awareness, and the proposed International Code of Conduct.

Some of this essay's conclusions are based on data available in open-source literature. However, most are based on the author's interviews with senior Indian national security officials responsible for space policy.

OVERVIEW OF INDIA'S SPACE FOOTPRINT

Since the initiation of India's space program in 1962, the endeavors have been predominantly civilian in nature. From the early 1960s until the early 2000s, agriculture, education, medicine, communications, and remote sensing were the primary areas of focus.[1] Since the beginning of the last decade, however, India has begun to expand its military footprint in space. Since 2001, India has launched dual-use satellites that combine civilian and military functions. These include the Technology Experimental Satellite launched in 2001, the Cartosat-2A launched in 2008, and the Cartosat-2B launched in 2010.[2] As with other modern militaries, the Indian armed services are becoming increasingly reliant on satellites for routine communications, surveillance, and navigational requirements. More recently, the maturing of Chinese ASAT capabilities has brought home to Indian national security managers the necessity of long-term planning to defend Indian assets in space. China's successful destruction of the FY-1C satellite in 2007 produced a knee-jerk reaction in New Delhi. There is some evidence to suggest that Indian government agencies may have begun exploratory efforts to develop anti-satellite weapon technologies in the aftermath of China's test.[3] However, Indian national security managers at the highest levels continue to maintain that India's uses of space for fulfilling "strategic objectives" are being crafted "within the ambit" of the 1967 Outer Space Treaty.[4]

THE INDIAN ARMED SERVICES VIEW

Prior to the 1990s, India's armed forces showed little interest in the utilization of space assets.[5] However, their approach began to change with the Persian Gulf War in 1991. In that war's aftermath, the Indian parliament's standing committee on defense recommended the creation of an aerospace command in the air force. The recommendation received little attention from the defense ministry until the outbreak of the Kargil War against Pakistan in 1999.[6] The need for independent reconnaissance assets became immediately apparent during the war when India had to depend on the Satellite Imaging Corporation's commer-

cial IKONOS satellite for information.[7] Similarly, during the 2008 Mumbai terror attacks, Indian security agencies found themselves unable to listen in on conversations between the Mumbai attackers and their Pakistani handlers due to the lack of independent signals intelligence capabilities.[8] Both events highlighted the significance of developing dedicated military-specific space assets. The Indian government confronted it by the expanding strategic- and tactical-level operational demands of the armed services by instituting the Integrated Space Cell (ISC) within the Integrated Defense Services in February 2008.[9]

At its inception, the Integrated Space Cell envisaged three conceptual scenarios as the basis for planning and strategy development:[10]

- The first, scenario I, imagines a program of managed asymmetry in the regional balance of power. It envisions gradual increases in India's military-specific intelligence, surveillance, and reconnaissance and Global Positioning System (GPS) capabilities.

- In scenario II, the Integrated Space Cell imagined conditions of demonstrated strides by China in the integration of its C4ISR capabilities (command, control, communication, computers, intelligence, surveillance and reconnaissance) and increased cooperation between Beijing and Islamabad. The envisioned Indian response under this scenario was the integration of space- and network-centric capabilities to prevent regional power asymmetries from halting any further deterioration in the balance of power.

- Scenario III imagines demands for space assets under conditions where India assumes a broader role in the Indian Ocean region. It envisions India using space assets in conjunction with its maritime defense capabilities to project force in the entire region.

TECHNICAL CAPABILITIES

The Integrated Space Cell also identified three space-based systems necessary for India's current and future defense:[11]

1. Imagery and surveillance capabilities

2. Positional and navigational capabilities

3. Reliable communication capabilities

IMAGERY AND SURVEILLANCE CAPABILITIES

Such satellites almost always perform dual-use functions. In the past, data from the Indian remote sensing series of satellites have had several clients, both domestic and foreign. For example, the Indian Army has used the Indian Remote Sensing series of satellites' data for mapping purposes. The U.S. Army and the U.S. Department of Agriculture have also had access to some of these data.[12]

India's Eleventh and Twelfth Five Year Plans envisage deployment of assets for applications targeted at agriculture, disaster management, biological aspects of the oceans, infrastructure, mapping analysis, and forestry.[13] An important technological component of imagery and surveillance satellites is the synthetic aperture radar satellites, which guarantee coverage under cloud cover. India possesses niche technical expertise but its space-based early warning capabilities are limited. Further, Indian agencies are limited in their ability to aggregate data from information gathered by separate terrestrial, air, land, and seaborne sensors.

POSITIONAL AND NAVIGATIONAL CAPABILITIES

India's delivery systems use the Global Positioning System and the Russian GLONASS system. However, both these systems produce large errors due to the large height difference between the Himalayas (height of 8,000 meters) and the Indian Ocean (depth of 4,000 meters). Hence, the GPS-aided geo-augmented navigation system (Gagan) is used to provide an automatic correction to GPS signals.[14] A further problem in relying solely on the GPS system is that there is no formal contract between India and the service provider for GPS coverage.[15] As an alternative, the GLONASS system is used.[16]

RELIABLE COMMUNICATION CAPABILITIES

The Indian armed forces have been using the Indian National Satellite System (INSAT) series for communication at least since the 1990s. According to a former senior official at the Integrated Defense Staff, "there is enough capacity in the INSAT and GSAT programs to meet the communication requirement of the armed forces."[17]

The communication requirement, as per the number of transponders according to the Eleventh Five Year Plan, is 260 over and above the existing 200 toward the end of the Tenth Five Year Plan period. The Indian Space Research Organization (ISRO), the country's space agency, aims to increase this number to 500 by 2012.[18] However, a growing population with significantly expanding needs in commercial communication capabilities would require an increase in bandwidth. Furthermore, the operationalization of certain armed force's networks to enable communication with assets such as unmanned aerial vehicles and multi-role aircrafts will impose additional communication requirements. Lastly, with the induction of

assets such as India's submarine-launched ballistic missiles, India's communications requirements are slated to be on the increase. These requirements will have to be met at least incrementally if not dramatically.

So far, the Indian Space Research Organization is the only agency that possesses expertise in building satellites inside India apart from universities that have demonstrated some experience in building small satellites. However, the agency would be required to increase the frequency of its launches or build satellites that can cater to the increasing demands.[19]

AREAS OF CONCERN

The Indian military's growing dependence on space assets for operations has made these assets attractive targets for India's adversaries. The Indian armed forces realize that they possess an array of satellites for intelligence, surveillance, and reconnaissance purposes and are keen to protect them, especially after the Chinese demonstration of ASAT capabilities. While China may or may not use hit-to-kill options, that possibility definitely factors into India's decisions about how to defend its space assets. In addition, threats from space debris and jamming have compounded the challenges of securing currently deployed satellites.[20] In this regard, three issues now command the attention of Indian policymakers: anti-satellite weapons, space situational awareness, and the International Code of Conduct.

ANTI-SATELLITE WEAPONS

In the aftermath of China's 2007 ASAT test, the former head of the Indian space agency, K. Kasturirangan, typified India's response when he noted: "Obviously we start worrying…. India has spent a huge sum to develop capabilities and place assets in space … there is a need to look at means to securing these."[21] V. K. Saraswat, the scientific adviser to the Indian defense minister, also warned that China's test could possibly lead India to develop satellite kill technologies.[22] The debate was subsequently joined by the chief of India's air force, Air Chief Marshal P. V. Naik, who made a forceful case for building anti-satellite weapons on the grounds that "our satellites are vulnerable to anti-satellite weapon systems because our neighborhood possesses one."[23] Saraswat subsequently declared that India possessed all the necessary technologies for an ASAT weapon. But he dampened his claim by stating that India would not test such a weapon. These and other statements strongly suggest that Indian government agencies have begun exploratory efforts aimed at addressing the threats posed to their space assets. But they do not imply that India has instituted an ASAT program.

Saraswat emphasized, for example, that "India does not believe in the weaponization of space. We are only talking about having the capability. There are no plans for offensive space capabilities."[24] Buttressing his claims, a senior Indian security manager reiterated that India's

position on the weaponization of space was similar in spirit to its nuclear "no first use" doctrine.[25] The same official also explained that India's focus would remain on the development of retaliatory capabilities. However, such capabilities would not be tested unless geopolitical "circumstances" forced India into demonstrating them. Evidence suggests that the determination of these circumstances is still evolving among Indian policy elites. While some section of the policymakers echo their experience with the Nuclear Non-Proliferation Treaty, others believe an event somewhere equal in magnitude to the Chinese ASAT test of 2007 could constitute such a red line. Ultimately, it must be underscored that any Indian ASAT test in the future will be a "response-based event." Echoing these claims, a senior Indian policy planner summed up the thinking within India's national security establishment:[26]

> … what we are trying to tell the world is that we have the capability too! But testing and operationalizing is a totally different issue … the development of such capabilities to a fair extent, provides the developer with a fair amount of estimate about his adversary's capabilities … you cannot estimate external threats and until you do your homework and develop these capabilities … until you do that you do not know what your adversary really has.

These statements highlight Indian policymakers' embrace of technology development and demonstration over the proving of operational military systems. Technology demonstration is less provocative externally, allows long lead times for technologies to mature, and is sensitive to the difficulties of building consensus within the Indian political system. In the past, India has adopted such approaches in developing nuclear weapons, ballistic missiles, and chemical weapons. Furthermore, the debate on space security reaffirms the status quo bias within India's national security decisionmaking circles. It shows that Indian institutions respond to threats. However, they do not necessarily anticipate them. As one policy planner put it, "India's proposed ASAT program came as a knee-jerk reaction after the Chinese ASAT test … [the Chinese test] has become a bench-mark for addressing a problem."[27]

SPACE SITUATIONAL AWARENESS

Space situational awareness is another issue area that has rapidly moved up the concern chart of Indian policy planners. And it principally concerns the threat posed by space debris. To an extent, Indian policy planners' awareness about the problems caused by space debris is limited. They are conscious of the challenges posed by it. Indian scientists and policymakers privately acknowledge that this is an underinvested sector and also that India's technical capabilities related to space situational awareness are limited at present.[28]

Currently, India's space situational awareness capabilities are limited to the Indian Space Research Organization's Telemetry, Tracking, and Command at Bangalore, whose functions are to provide situational awareness and the tracking of low Earth orbit satellites in addi-

tion to launch missions. Ground stations at Bangalore, Lucknow, Sriharikota, Port Blair, Mauritius, Bearslake, Brunei, and Biak contribute to these functions. An Indian Deep Space Network station at Bangalore, established for the Chandrayaan-I mission and consisting of two S-band dish antennae of 18 and 32 meters, also augments India's capability. However, its tracking volume and accuracy are unknown.[29]

Indian policymakers believe that an Indian space situational awareness would pose great challenges in terms of the resources needed to provide extensive geographical coverage. In the short run, therefore, external cooperation would be the best strategy. But in the long term, they are of the opinion that India should develop its own assets to perform space situational awareness functions. That said, many mid- and senior-level Indian officials, both from civilian research agencies and the military, harbor deep suspicions concerning cooperation with the United States due to the legacy of American technological sanctions against Indian entities. They maintain that any proposed Indo-U.S. cooperation in the development of space situational awareness capabilities should be "free of any strings attached."[30] Despite suspicions about cooperation with the United States, some Indian national security managers welcome the opportunity to be a recipient of technological cooperation. There is also a widespread acknowledgment among certain sections of policy elites that the United States possesses "the best" space situational awareness capabilities. They also add that any system that they may potentially construct would be "complementary" to U.S. capabilities. They opine that the nature of cooperation will be dependent on the type of proposal made by the United States. Such a proposal has to be made at sufficiently high U.S. levels to have any serious impact in forging closer cooperation. For example, a former senior official pointed out a recent offer made by Russia to India for collaboration on developing the GLONASS system. The offer was made by Russian Deputy Prime Minister Dmitry Rogozin and offered collaboration on an "equal" basis.[31] While the exact nature of this proposal cannot be determined at the outlook, this proposal is made at a sufficiently high level and offers India not only the technology but also an equal role in the development of the technology.

INTERNATIONAL CODE OF CONDUCT

Several leading Indian strategic analysts have voiced their belief that India must be proactive in taking the lead in shaping any future regimes, such as the recently proposed international Code of Conduct, that govern outer space.[32] While India still does not have an official position on the Code of Conduct, the issue is regarded as sensitive and has begun receiving high-level official attention. India's immediate concerns are threefold.[33] First, many officials who occupy senior positions in Indian policy circles believe that India has yet to attain "self-sufficiency in terms of capabilities" to the point where it can engage in serious negotiations. Second, Indian security managers have serious concerns about the developments in their immediate neighborhood (China) and the ability of a Code of Conduct to address those

concerns. Finally, they would prefer that any such code protect India's space-related interests, capabilities, and autonomous capacity for action.

India has thus far been a very active participant in many of the international multilateral forums such as the Inter-Agency Space Debris Coordination Committee, the United Nations Committee on the Peaceful Uses of Outer Space, and the Conference on Disarmament in Geneva. That said, it must also be noted that Indian officials and policymakers are extremely cautious about broad multilateral regimes that are not legally binding and verifiable. According to a senior Indian national security official, "the lack of progress in certain multilateral regimes has given rise to individual bilateral regimes and regional confidence-building measures."[34] They are also quick to point out the fate of many of the multilateral regimes and opine that bilateral and regional settings are far more favored, easier, and less complex to manage. Indian policymakers have thus far displayed a sense of pragmatism in approaching the Code of Conduct issue. They realize that a Code of Conduct (CoC) may not be the solution to the problem, but they perceive it as an opportunity to address their concerns and convey their viewpoints to friends, allies, and the international community at large. In this regard, a senior Indian policy planner put it rather bluntly: "We know that the CoC will go out the window when issues such as pride, power, prestige, and national security are concerned. However, we require a medium to talk and convey our thoughts, and the CoC offers us that."[35]

> **The Indian military's growing dependence on space assets for operations has made these assets attractive targets for India's adversaries.**

CONCLUSION

The use of space for strategic advantage in war was incipient at the very start of the space age. Space-based reconnaissance and communication assets were very much part of the superpower rivalry during the Cold War years. The 1991 Persian Gulf War highlighted the role of space power in force enhancement and force support operations. Subsequent U.S. operations in Kosovo and the 2003 Iraq War once again reinforced the significance of space power. Like other modern militaries, the Indian military, too, has absorbed the significance of the role that space assets play in enhancing its force effectiveness, and in general, the revolution in military affairs.

India is a late entrant into the space security game. Within the Indian government, the debate on which agency or agencies would control activities suited for national security is still very nascent. The Indian military feels the need for an Aerospace Command. However, its formation is still very distant. The military's increasing interest in space assets, reconnais-

sance, navigation, and communications satellites, has inevitably raised questions on how to best defend these assets from satellite disabling technologies during future conflicts with peer competitors in the region.

Thus far, India's approach to utilizing space for strategic purposes and achieving security has been measured and exploratory. India's civilian space agency, ISRO, has very strict firewall rules to cordon off civilian space assets. India's national security agencies have only used some of these assets within legally accepted limits of the Outer Space Treaty (OST). Similarly, there is considerable caution in New Delhi's approach to developing KE-ASAT weapons. Indian policymakers seem to realize that testing a KE-ASAT is not necessary, at least in the near future. They are also extremely wary about the consequences of the weaponization of space.

Finally, Indian policymakers attach considerable importance to the CoC, which they believe will lay out the rules of the road for "responsible behavior" in space. Understandably, they approach such multilateral instruments with a sense of caution because of their past negative experiences with the nuclear nonproliferation regime. But they appear to have concluded that the CoC will not be a "one stop solution" to emerging security challenges in space. However, it might serve as a useful vehicle to air Indian concerns to other states.

As one senior Indian defense official put it: "We will satisfy our requirements within the ambit of what is permitted in the Outer Space Treaty."[36] In going forward, at least in the short run, officials and policymakers believe that this will be the path that India will pursue. No doubt, there are some within the defense and strategic circles that are openly advocating a more aggressive military space policy. However, their advocacy is unlikely to succeed in the short run because civilian agencies such as ISRO and the Defense Research and Development Organization (DRDO) have historically enjoyed far greater influence than the military in shaping strategic research and development choices.

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QUESTIONS POSED TO THE AUTHORS ON
CYBERSECURITY

1   What is your country's approach to cybersecurity? Specifically, what does your country perceive as a cyberattack? How important is cybersecurity to your country's national interests?

2   A "cybersecurity regime" has yet to be fully instituted. Does your country see such a regime as necessary? If so, what should such a regime include? Should it be multilateral or bilateral?

3   Cyberattacks are often difficult to attribute, a problem made more difficult by the often nebulous connection between many hackers and state sponsors. What does your country believe should be the responsibility of a state for cyberattacks emanating from its territory?

4   How committed is your country to Internet freedom?

   What risks does a fully free Internet pose to your country's national interests?

   What are your country's views on Internet neutrality?

   How does your country balance national security interests with the benefits of Internet freedom?

5   What are your country's views on cyberattacks and cyberespionage as legitimate tools of warfare?

   Is it legitimate for a state to develop military capabilities for cyberwarfare? Under what conditions is the use of such capabilities legitimate?

   Is it legitimate for a state to sponsor cybersurrogates or encourage independent hackers as instruments of national policy?

CYBERSECURITY

TANG LAN

CYBERSPACE'S IMPACT AND RISKS

In the past year, the world has become aware of threats to cybersecurity as never before. The nature and sources of the Stuxnet attack on Iran were publicly discussed. Recently, a virus called Shamoon infected the Saudi Arabian state oil company Aramco and Qatar's Ras-Gas, causing significant disruptions. Global cybercrime and its associated damage increased with unprecedented speed at the same time. Critical infrastructure—gas pipelines, power grids, railway systems, financial institutions—face threats from hacking to malware. Threats in cyberspace clearly pose a real and direct risk to the economies and security of modern states. China, vigorously striving for a prosperous digital economy, inevitably faces a significant risk in cyberspace. Each year, the National Computer Network Emergency Response Technical Team Coordination Center of China (CNCERT) deals with serious attacks on government, financial institutions, and commercial websites.

The first decade of the twenty-first century brought to China the rapid development and popularization of information and communications technology (ICT) and different kinds of Internet service. After three decades of economic reform, China now regards ICT as a great opportunity for transforming its approaches to development. As the Boston Consulting Group mentioned in its report "China's Digital Generations 3.0," "in China, the Internet is everywhere." By 2015, China's Internet population will exceed 700 million, double the combined total of Japan and the United States. The government initiated the "Broad-

band China" project, the twelfth five-year plan of the Internet industry, and other similar programs that focus on developing next-generation digital infrastructure and strategically important emerging industries (such as cloud computing, Internet of Things—uniquely identifiable objects and their virtual representations in an Internet-like structure, and mobile networks). According to the Ministry of Commerce, last year's online transactions involved 6 trillion RMB and accounted for 13 percent of the country's GDP. China will be the biggest market of online retail in 2013.

Obviously, the Internet is revolutionizing human society by driving economic growth and giving people new ways to live, to work, and to connect and cooperate with one another. This is certainly the case in China, too, where the impact or shock of the resultant changes is profound. The dependence on information systems and networks in the daily functioning of governments, business, and ordinary people is unprecedented. Cyberspace, which is composed of computers, networks, information systems, and the data stored, modified, and exchanged in them, has increasingly become the central nervous system of China. One of the most important preconditions and foundations of an information society is security. Only a safe, secure, trusted, open, and orderly cyberspace can maintain the prosperity, innovation, and empowerment that ICT provides. Authorities must now put combating all kinds of cyberthreats on their agenda. Unlike the United States, which has been banging the drums loudly about cybersecurity, China does not yet have an official cybersecurity strategy. But the government has showed its concern about the issue.

> **Cyberspace, which is composed of computers, networks, information systems, and the data stored, modified, and exchanged in them, has increasingly become the central nervous system of China.**

In 2004, the Chinese government for the first time equated cybersecurity with political security, economic security, cultural security, and military security as the five major challenges the country faces. In the annual government work report and other papers, documents, and speeches, Chinese leaders have indicated that cybersecurity is a matter of public safety and national security and is among the most serious economic and national security challenges that China faces as a nation. Many experts and scholars are also paying more attention to it. They insist that the digital world is not virtual; it should be treated as a national strategic asset, whose importance even exceeds that of land, sea, and air. The country should understand and emphasize that the issue is strategically important to the nation's development and security. In the yearly National People's Congress (NPC) and National People's Political Consultation Conference (NPPCC), more and more proposals were put forward by representatives, pushing the government to improve its capability more actively. Recently the State Council released a decision to secure cyberspace and develop plans to enhance capacities to prevent cyberattacks, malware, and data leaks.

FOUR CATEGORIES OF CYBERTHREATS

The Chinese government insists on seeking comprehensive security in cyberspace and prefers the term "information security" to "cybersecurity." The word "information" should be understood in two ways. One is networks and systems; the other is data, contents, messages, and knowledge being conveyed. In China's view, information security must be divided into two aspects. First is the security of computers, networks, and systems composed of them. It involves the protection of critical infrastructure, such as banking, transportation, energy, and communications. Second is the security of data and information carried in various kinds of computers and networks, including combating illegal and harmful online content, protection of critical personal information, sensitive government information, intellectual property, and so on. In short, the meaning of information security goes beyond cybersecurity.

In general, there are four kinds of cyberthreats facing China. First is the vulnerability inherent in computers, networks, technologies, and systems constituted by them. The more sophisticated the technologies are, the more vulnerable they are. As users are more dependent on digital space, they become more fragile. This vulnerability will not be eliminated in the short term, if ever. Measures against cyberinsecurity always lag behind the development of risks. It is a tricky game. Security technology that has just been invented is usually out of date by the time it is deployed. Many countries, including China, still debate what kind of law is more suitable to this brand new world—a comprehensive law or a series of single laws focused on different risks.

The second threat comes from all kinds of illegal online activities. Cybercrime (including fraud, hacking, the spread and trading of malware, extortion, online gambling, online pornography, and piracy, and the illegal and harmful dissemination of content) should be prosecuted according to criminal law. Crimes that are not tolerated in the physical world should not be accepted in the virtual world. Of course, the Chinese government is more concerned about the political and social impacts of ICT. Authorities insist that there should be a balance between rights and responsibilities, between freedom and security. Every person or organization can express itself freely, but within the limits of the law. What will not be tolerated is dissemination of any information jeopardizing national security, revealing national secrets, subverting the government, stirring up hatred or discrimination among nationalities, or harming the unity of the nationalities. China explicitly forbids such activities in its regulations and laws. As UK expert Thomas Rid said in *Foreign Policy* in March 2012, for China and Russia, "the worst-case scenario is not collapsing power plants, but collapsing political power." Although this remark is slightly exaggerated, it reflects a big concern of China's.

The third threat is cyberterrorism. Although no real incidents of cyberterrorism have yet occurred in China, it is just a matter of time. As more and more infrastructure is interconnected and operated through all kinds of networks, the possibility of exploitation and

disruption by terrorists becomes huge. With sophisticated attacking skills readily available, cyberterrorism will enter a new phase, from recruiting, propagandizing, establishing training camps, and raising money, to causing physical damage.

The fourth threat is the militarization of cyberspace. Some countries assert that cyberspace is the fifth domain in which the military can operate and predict that future war will take place in cyberspace. Driven by this idea, countries vigorously invest in offensive cyberattack measures and want to use deterrence theory in this domain. The United States and other countries have even begun to develop rules of engagement for cyberspace. UK Foreign Secretary William Hague said in an interview with the *Telegraph* last year that the country "faces a growing arms race in cyberspace."[1] It is the same for China, and it is a real threat that the world should not neglect.

Due to varying degrees of popular use of the Internet and scale of digital infrastructure, and to differing cultural and political traditions, countries differ in their perceptions of cyberthreats and priorities in addressing them. Divergences and disagreements are inevitable. States also differ in their legal systems. Some illegal activities can be sentenced as a crime in one country, while they cannot be prosecuted in other country. It is easy for criminals and hackers to take advantage of these gaps. Fundamentally, misperception among countries is hard to eliminate. Achieving mutual trust is a major problem. But because of the borderless nature of cyberspace, no country can manage alone or remain aloof. Countries have common concerns and problems in cyberspace, such as maintaining secure critical infrastructure and Supervisory Control and Data Acquisition (SCADA) systems, which are widely used in power grids and other key industries, and in protecting individual privacy, corporate secrets, and sensitive state information from penetration and leaks. These common objectives require international cooperation.

Notwithstanding shared objectives, states differ widely in their law enforcement capabilities. Due to the limitations of forensics and acquiring digital evidence, many developing countries are not able to identify the origin of attacks, or they have difficulties in arresting attackers rapidly or preventing repeat offenses. It is unfair and unrealistic to ask all countries to be responsible for attacks that originated inside their territory, or for any data flows through their borders. The botnet factor also should be considered. Some attackers take advantage of the weak defenses and forensics of some countries and use them as springboards for attacking others, while it is hard for victimized countries to take countermeasures.

THE STATE'S RESPONSIBILITY

According to existing mechanisms and laws, and learning from other countries' best practices, China established a management mechanism of cybersecurity with national characteristics. It seeks to share the responsibilities and obligations between government, industry, nongovernmental organizations, and individuals and make them work together. Government documents have summarized the mechanism as directed by the law and rules,

managed by government, and reinforced by self-discipline of industry, public supervision, and awareness education.

At the governmental level, more than ten departments are now involved in cybersecurity. Which department takes charge depends on the issue at hand. Investigating and prosecuting cybercriminals is the duty of the Ministry of Public Security. Protecting critical infrastructure and important networks might be the major task of the Ministry of Industry and Information Technology. Issues related to online information fall under the purview of the Press Office in the State Council. The Ministry of Culture and General Administration of Press and Publication also play roles. As time has passed, problems in determining who is responsible and who is in charge have been exposed in this multi-actor system. The government increasingly realized the importance of high-level coordination and planning as a whole and has taken some action to improve on this count. So far the country has established emergency response organizations at the country and local levels and built classified protection mechanisms for critical infrastructure and important systems.

In terms of law, since the 1990s, China has issued more than 30 laws and regulations on information security. It has amended the criminal law several times with regard to new online crimes. In August 2011, the Supreme People's Court and the Supreme People's Procuratorate issued a new judicial interpretation of hacker attacks and distribution of malicious programs on the Internet, extending imprisonment and/or penalties for the production, sale, and distribution of hacking tools and the theft of online information. According to the chairman of the NPC, the legislative branch is considering developing a comprehensive law on information security. China opposes any kind of hacking, cyberattack, and cybercrime, regardless of whether the targets are domestic or external. In a case in which hackers had been hired to enter the computer systems of the Shanghai and Guangdong maritime bureaus in a bid to embezzle 2.38 million yuan ($377,468), the hackers were sentenced to five years and their "employers" to sixteen years in prison according to the new interpretation. It opposes the illegal use of computers or encouraging someone to hack on behalf of the government or to launch a cyberattack. Besides revamping laws, the relevant departments often undertake specific operations to crack down on illegal online activity such as the Ministry of Public Security operation combating online black markets, botnet distribution, and hackings, and the State Intellectual Property Office's operation against IPR infringement and counterfeiting.

At the industry and technology level, authorities unveiled several research and development projects on key technologies, stimulating the expansion of the security industry. Still, quite a few scholars are not satisfied with the status quo. They argue that the government has not done enough to reduce the country's dependence on Western, especially U.S., technologies, applications, and services. One example is still fresh in their memories. In 2008, Microsoft launched an action to blacken the screens of computers using a counterfeit Windows operating system. Many Chinese netizens treated this as a warning, that if the United States wishes, it can control everyone's computers, even the government's, through

the backdoors of the Windows operating system. There is a view that the Internet is in the hand of companies. How to identify the obligation and the responsibility that companies should take in defending national cybersecurity is still a challenge for society. In China, Internet service providers and other online service-providing companies should obey the law, although the legal system lags behind the rapid development of technology and the IT industry. Companies should try their best to ensure that their websites or services are not used as a platform for crime or other illegal behavior such as the spreading of rumors or illicit content. Occasionally, companies are asked by the relevant government department to remove unlawful content and provide assistance to investigators when needed. This is established international practice. The industry also proposes self-regulation to try to establish a good environment for online interaction and to build trust with users.

> An open and free Internet is in the interest of China. However, as in the offline world, absolute freedom online is impossible.

At the international level, China is an active contributor to cybersecurity cooperation and has made achievements in joint law enforcement and information sharing. The Ministry of Public Security has established judicial cooperation with more than 30 countries. Last year it worked with the U.S. Federal Bureau of Investigation to jointly crack down on an illegal website based on their mutual desire to curb the spread of child pornography. Yet, due to limited capabilities in forensic digital evidence gathering and investigation, a lot of illegal online actors still go unpunished. In global cybersecurity cooperation, responsibilities and obligations should be matched with countries' capabilities and resources. China insists that it is improper to ask other countries to make unrealistic promises or condemn them for not doing the things they are unable to do.

CHINA'S PERSPECTIVE ON INTERNET FREEDOM

China has its own opinions and perspectives on dealing with cyberthreats and is also creating its own blueprint for the future. Despite a lack of an official strategy or documents, China has shown interest in a cyberspace that is peaceful and safe, open and fair, free but orderly.

As it has elsewhere, the Internet has penetrated every aspect of life in China. The government, companies, and citizens alike have experienced and obtained huge benefits from the free exchange of views and information available in cyberspace, compelling them to realize that an open Internet is an engine for economic development, social advancement, and innovation. Unquestionably, most Chinese acknowledge that cyberspace has become a critical part of the ecosystem that human beings rely on. Actually, the physical world and the virtual

world are increasingly and deeply convergent; it has become harder to distinguish what's virtual from what's real. Should the world go backward to a world without Internet or other information and communications technology? Should countries sever their links to the outside world and establish a big "intranet" inside the country? The answer is definitely no. We cannot reverse the trends. An open and free Internet is in the interest of China. However, as in the offline world, absolute freedom online is impossible. Online behavior must adhere to the law and to fundamental norms, and the virtual world should have its own order. It is important for the government to maintain that balance when it develops policy. It should balance between rights and obligations, and between regulation and management according to the law and encouraging innovation and natural information exchange. It is the government's responsibility to create and protect a healthy and fair online environment. The popular thinking among Chinese legal and technical experts is that the Internet actually *has* boundaries and that any country has the right and obligation to combat hacking, fraud, and other kinds of cybercrimes or attack, in order to protect the regular use of Internet. If policy and measures are consistent with laws and in the interest of most people and the country, freedom should not be used as a cause to prevent government from fulfilling its obligations.

ICT is one of mankind's greatest creations. People around the world seek to maximize the benefits of it, to treat it as a great opportunity to change their lives. Some, however, are inclined to use the Internet as a tool for evil. There is an issue of peace and war in cyberspace, just as in the traditional world. How to prevent a neutral technology from being used with malicious intent, and how to punish bad conduct, is becoming a big challenge for the world. To achieve that aim, there should be a cyberspace code of conduct or norms of behavior.

CYBERWARFARE

It is known that the costs and threshold of carrying out cyberattacks are low. The people who launch attacks, and their purposes, are diverse and complex, and the targets and attacking measures are also getting more and more sophisticated. The activities that are intended to disrupt, destroy, degrade, and even paralyze the normal functions of computers, networks, and information systems, or to alter, steal, and damage the data and information stored and exchanged on them, are classified as cyberattacks, and regardless of what measures are used—phishing, viruses, worms, Trojans, or other malware, launching distributed denial of service attacks (DDoS), hijacking the Domain Name System (DNS), creating botnets, or even renting hackers—they should all be treated as cyberattacks and their perpetrators should be punished according to the law. There is a debate on the standard used for classifying the character of different attacks. In general, there are seven standards: duration, scale, effect, attribution, target, capability, and motive. Although there is no common definition of cyberwar, cyberattack, or cyberconflict, most opinions insist that the threshold

for conducting cyberwar must be high, and it is dangerous to use the term "cyberwar" to represent all cyberattacks. It is also risky for countries to resolve disputes, or threaten to resolve them, through cyberattacks. Because the world is now hyper-interconnected, collateral damage can occur. Some attacks might even cause great damager to the attackers themselves. Without a clear prediction or description of the consequences of a major cyberattack, nation states should be cautious about developing unlimited cyberwarfare capabilities.

Among the articles of existing international laws, including the UN Charter, laws of armed conflict (LOAC), law of international humanitarian conduct (such as the Geneva Convention or Hague Convention), there are definitions of *jus ad bellum* and *jus in bello*, which also have strict limitations on the kinds of weapons that can be used in war, which targets may be attacked, the extent of the right of defense, and so forth. Only those cyberattacks that are sponsored by a nation-state and that reach a certain intensity can be treated as cyberwar, and, depending on the measures used and the damage caused, the response will be different. Otherwise, there are considerable issues yet to be resolved. For example, what constitutes use of force in cyberspace? The U.S. Department of Defense has affirmed that if a cyberattack produces the death, damage, destruction, or high-level disruption that a traditional military attack would cause, then it would be a candidate for the use of force. However, this affirmation is still questionable. It does not conclusively indicate, for example, whether some kind of inactive worms, backdoors, or logic booms preinstalled and hidden in other countries' defense or critical systems that are intended to collect information and keep dormant only to be activated under certain conditions, could warrant a forceful, preemptive response. Is this kind of operation to be treated as force deployment or battlefield preparedness, just like in conventional war and therefore as a legitimate target? Stuxnet, the malware that targeted Iranian centrifuges, caused real damage, and was called the first cyberweapon and a symbol of this new kind of war. Who should be responsible for it? Is it really a cyberwar? No one has the answer. But something is clear and definite: If a country uses a cyberattack to cause real damage to other countries that LOAC has forbidden, including creating huge economic losses, costing lives and causing personal injury, prompting serious rioting inside the targeted country, overthrowing the regime, or causing other lethal damage, it should be considered use of force in cyberspace. As mentioned in the International Code for Conduct of Information Security proposed by China, Russia, Tajikistan, and Uzbekistan to the United Nations in 2011, countries should have "respect for the sovereignty, territorial integrity and political independence of all states," and should promise "not to use ICTs including networks to carry out hostile activities or acts of aggression and pose threats to international peace and security." China does not view cyberspace as a battle-

> **The UN is still the most suitable platform to lead the international community in shaping an international regime on cybersecurity that can represent the ideas of as many countries as possible.**

field and opposes the development of cyberweapons or use of the Internet to interfere with other countries' domestic affairs. The emerging cyberwar arms race has become a pressing threat to the peace and security of the world.

The development of ICT has revolutionized traditional military operations and espionage. It is understandable for countries to utilize ICT to improve their militaries' operation capability, and it is naive to believe that countries will not carry out espionage online. But whether these operations are consistent with existing international law and whether they can be legally used as tools of war are questions that are not easy to answer. It also seems questionable to violently retaliate for viruses that cause no harm and whose attribution may be unclear. And due to the difficulties of attribution and the lack of a standard to judge damages, it is still unclear when and how victimized countries can prevail on the right of defense in cyberspace and who they should counterattack. It is known that the interconnections between different networks and systems are immensely complicated, and the nodes number far into the millions. To conceal their real identity, attackers can easily penetrate a third party's networks or rent hackers to launch attacks. Unlike the Geneva Convention's provisions about the rights and obligations of a neutral country, in a cyberattack, countries often do not realize when they are being used as a springboard for attacks. Furthermore, there is still no efficient approach to finding evidence linking attackers and mercenaries in cyberspace.

Given the many new challenges the global community now faces, it is time to consider how to implement existing international law in cyberspace and whether it is necessary to develop new norms of behavior in cyberspace. Some fundamental principles must be adhered to even in the information age, such as respect for the sovereignty of the nation-state, respect for the diversity of history and culture, respect for basic human rights, and the need to resolve international dispute through peaceful means, among many others. But at the same time, we should acknowledge that due to the nature and uncertainty of cyberspace, there are inapplicable aspects in the existing code of conduct. An effective approach to combat cyberthreats is to enhance multilateral cooperation among countries, establish mutual trust in cyberspace, and work together to develop a treaty on cybersecurity that most countries can accept. In the view of China, despite the many flaws in the United Nations and the long time it takes to consult, the UN is still the most suitable platform to lead the international community in shaping an international regime on cybersecurity that can represent the ideas of as many countries as possible. At the same time, other platforms, including bilateral and multilateral frameworks, are a necessary and useful complement. Along with Russia and two other Central Asian countries, China has made a significant contribution to laying down the behavioral norms of cyberspace. But it is just the first step, and building a peaceful, open, and fair cyberspace still needs all countries to participate and put forward their best efforts.

The views expressed in this essay represent the author's own opinion and do not represent the view of any organization or government.

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CYBERSECURITY

SUBIMAL BHATTACHARJEE

CYBERSPACE'S IMPACT AND RISKS

The introduction of the Internet in India in 1995 inaugurated a steadily growing cyberspace. Today, 121 million Internet users, out of India's total population of 1.2 billion, make the rate of Internet penetration roughly 10.2 percent.[1] India has the third-largest share of the world's 2.26 billion Internet users.

While the Internet has created significant benefits for social networking,[2] communications, government-based citizen delivery services,[3] and even commerce, cyberspace has not remained unscathed—abuses and criminal activities have in no time grown in frequency and sophistication, and many of them have been steadily transformed into terrorist tools and cyberwarfare programs. According to the Computer Emergency Response Team India (CERT-In), a total of 8,266 incidents were handled in 2009. By 2010, the number had risen to 10,315, and in 2011 it was up to 13,301.[4]

In India, "cybersecurity" was defined in the Information Technology (Amendment) Act of 2008 (IT Act) as protecting information, equipment, devices, computers, computer resources, communication devices, and information stored therein from unauthorized access, use, disclosure, disruption, modification, or destruction.[5] This IT Act amended provisions of the original Information Technology Act that had been passed in 2000. The revised act also addresses all forms of perceived attacks, both contraventions (civil) and offenses (criminal),[6] and it has also defined cyberterrorism.[7] As per the IT Act, hacking refers to the unauthor-

ized access to computer networks in many forms. Apart from hacking, the planting of software code malware as either viruses, worms, or Trojans and distributed denial of service attacks (DDoS), in which a large number of computers, often remotely controlled, are used to launch attacks at predetermined computers or networks for predetermined periods are the most prominent forms of attacks.

However, when such attacks are made to obtain access to information and data that are restricted for various reasons[8] and also stored in a restricted and secured environment, then the offense is referred to as cyberterrorism. Since the IT Act works in conjunction with other laws in force, including the Indian Penal Code, attacks linked to physical incidents are also adequately addressed in it. The IT Act's jurisdiction pertains to global networks, too,[9] so attacks on Indian networks from foreign networks are also covered. Similarly, the IT Act has sections that deal with content that can cause harm to the sovereignty and integrity of India, the security of the state, friendly relations with foreign states, public order, decency or morality, or contempt of court, defamation, or incitement to an offense—and these sections cover situations where enemies, rogue states, or syndicates used cyberspace to disturb the political existence of India.

While crimes and in turn attacks have become a serious law enforcement issue, one of the major concerns that grips India today is the use of cyberspace for cyberterrorism. Terrorists have found cyberspace to be a safe medium for communicating with each other, spreading propaganda, collecting funds from sympathizers, and also recruiting cadres. Even before the Mumbai terrorist attacks in November 2008, the blasts in New Delhi (September 2008), Ahmedabad and Bangalore (August 2008), Jaipur (May 2008), Varanasi (March 2006), Hyderabad (August 2007), and the serial blasts in Uttar Pradesh (November 2007), all had trails that indicate some activity in cyberspace.

> **The transnational nature of cyberspace, and the absence of geographical constraints on it, raises many issues for the governance of the Internet as a whole.**

Such actions awakened the government and spurred it to improve both its technical and legal capacity to address attacks. However, apart from the amendment of the IT Act in Parliament in December 2008, not much action has followed to bolster institutional capacity in the country, including that of law enforcement agencies and the infrastructure including training avenues and forensic labs. The hacking of the Central Bureau of Investigation website in December 2010[10] was the next push for action, and the deputy national security adviser was designated to act as the coordination point for all government agencies involved in cybersecurity, including the CERT-In, intelligence agencies, and defense forces. A draft national cybersecurity policy[11] was published for public comments in April 2011, but it has yet to be announced as an official policy. Similarly, it was decided to have the National Technology Research Organization (NTRO) under the prime minister's office address the issue of critical infrastructure protection and also to

provide technical support for cybersecurity functions. Currently, efforts are proceeding at the highest levels in government to define the national cybersecurity architecture,[12] and the national security adviser has referred to the "whole-of-government cybersecurity architecture." The prime minister has also endorsed this position at the annual conference of the police chiefs in mid-September this year.[13] Such a policy will also significantly factor in the role of the private sector,[14] and the public-private partnership is very critical to cyberspace management. In the national security revamp report that was recently submitted by the Naresh Chandra committee to the prime minister,[15] some references indicate that cybersecurity is becoming a critical parameter of national security.

INDIA'S CYBERSECURITY REGIME

India is not alone in making cybersecurity a national effort. The transnational nature of cyberspace, and the absence of geographical constraints on it, raises many issues for the governance of the Internet as a whole. The possibility has become very real for state and non-state actors, ranging in both size and capability, to confront each other without any physical harm to the perpetrators of the attacks. So in the late 1990s, the need for global consultation and cooperation was felt, but the way to handle it was not clear, partly because various countries were at various states of cybersecurity development and because countries had divergent views of which issues were to be covered and how. For instance, the leading powers at that time approached the problem of cybersecurity from two different angles: The United States focused on a law enforcement approach at the domestic level with voluntary international collaboration, while Russia advocated developing binding international regimes.[16] Russia introduced the first UN resolution on cybersecurity issues during the 53rd General Assembly in 1999, entitled "Developments in the field of information and telecommunications in the context of international security," which was then adopted by consensus. It called upon UN member states to promote, at multilateral levels, the consideration of existing and potential threats in the field of information security, and for the UN secretary-general to report back to the 54th General Assembly on these threats. Since then, UN resolutions 55/63(2000), 56/121(2002), 57/239(2002), 58/199(2004), and 64/211(2009) have all been passed and have focused on a variety of emerging issues in cyberspace. As per the last two resolutions, a Group of Governmental Experts (GGE) was formed in 2004, and another in 2009 to look at the impact of information communication technology on international security, and they have submitted their reports. The recommendations of the 2009, twenty-country GGE were submitted in 2010, and they highlighted the need for further dialogue and continued exchanges for confidence building and stability among the global community.[17] A third GGE started working in August 2012, and it will report to the 68th session of the General Assembly in September 2013.

India has been actively seeking a regime that looks at all issues that affect the growth, stability, and security of cyberspace, and it was an active member of the 2009 GGE. During the London summit on cybersecurity in November 2011, India made clear that it regards the safety of cyberspace as a global public good and that the problem must be addressed collectively.[18] At the same meeting, India reiterated its position for a discussion on whether laws covering international armed conflict, such as those included in the Geneva Convention, can also apply to cyberattacks. In February 2011 at the 47th Munich Security Conference, India's national security adviser reiterated the need to look at all the international conventions in the context of issues facing cyberspace.[19]

However, at the 66th session of the UN General Assembly in October 2011, India for the first time made its position clear about the need for a multilateral body to manage cyberspace. It referred to the urgency of forming a multilateral, democratic, participative, and transparent global policymaking mechanism to enable coherent and integrated global policymaking on all aspects of global Internet governance. India also proposed the establishment of a body to be called the United Nations Committee for Internet-Related Policies (CIRP). It would comprise 50 member states, be funded by the United Nations and staffed from the UN's Conference on Trade and Development (UNCTAD), and report directly to the UN General Assembly. CIRP would be mandated to undertake the following tasks:[20]

1. Develop and establish international public policies with a view to ensuring coordination and coherence in cross-cutting Internet-related global issues

2. Coordinate and oversee the bodies responsible for technical and operational functioning of the Internet, including setting global standards

3. Facilitate the negotiation of treaties, conventions, and agreements on Internet-related public policies

4. Address developmental issues related to the Internet

5. Promote and protect all human rights; civil, political, social, economic, and cultural rights, including the right to economic development

6. Undertake arbitration and dispute resolution, where necessary

7. Crisis management in relation to the Internet

India reiterated its support for the creation of CIRP at the meeting of the United Nations Commission on Science and Technology for Development held in Geneva in May 2012.[21]

It is also worth mentioning that the Indian position at the UN General Assembly was consistent with that of the India-Brazil-South Africa (IBSA) multi-stakeholder meeting on

Global Internet Governance held in September 2011 and ratified by the IBSA Summit in Durban the following month. Clearly, India has already garnered support for its effort from two other nations that also have significant economic activity across geographic boundaries.

The Indian position has generated a lot of debate within the country, and also among the international community, which sees it as a ploy to challenge the current mechanism under which the Internet is managed by the U.S.-based nonprofit Internet Corporation for Assigned Names and Numbers (ICANN), which has up to now efficiently managed the critical resources of the Internet through a governing council that includes government representatives. Some criticism also states that the Indian position is being thrust on the global forum without multi-stakeholder consultations in the country.[22] Some have suggested that such a stand by India actually aligns it with countries like China, which stand in the way of Internet freedom.[23] Also, there are concerns that such a position actually does not comprehensively address the growth and stability of the Internet and instead bureaucratizes its control.

Apart from this multilateral pitch, India has also been fostering active bilateral engagement on cybersecurity cooperation with a few countries, including the United States, the United Kingdom, France, Australia, Japan, Singapore, and South Korea. A memorandum of understanding was signed on cybersecurity cooperation between the Computer Emergency Response Teams of India and the United States (CERT-In and US-CERT), and the decision was made to cooperate in capacity building and to work together, also with other countries, to advance cybersecurity standards.[24]

THE STATE'S RESPONSIBILITY

India fully recognizes the fact that cyberattacks will come from both state and non-state actors, and that in many cases, such attacks are coordinated between public and private actors and are complicated.[25] Many states are reportedly already pursuing cyberwarfare programs, in which the role of hacker syndicates and individuals are very well factored in. The investigations of many cases of cyberattacks on Indian networks have pointed to Chinese or Pakistani involvement.[26] Similarly, the current spate of DDoS attacks on many Indian government networks by the hacker group Anonymous[27] has been an indication of the role that hacker syndicates can play. The difficult part of cyberattacks is the fact that, on many occasions, the actual attacker is able to hide his exact digital location and footprint and instead "spoof" it on some other innocent network. This has resulted in a situation where governments are not able to directly attribute many of the attacks that are taking place. Even if they are able to, it may still be impossible to definitively identify the entity or individual who performed or directed the attack. While many attacks on Indian networks have occurred in recent years, there has been no official attribution by the Indian government of

any of them. So when the former Indian national security adviser made reference to Chinese cyberattacks on Indian networks, including those of the prime minister's office,[28] the Chinese promptly denied it, and the matter stopped there, as there was no way that India could prove its point. More recently, the Indian home minister has officially taken up with his Pakistani counterpart about social media networking sites being misused by elements based in Pakistan to circulate false pictures and stories to whip up communal sentiments in India.[29]

> **In India, unlike in many countries, hate speech and other forms of blasphemous content are still very likely to incite communal violence that can spread very fast and often become a major issue.**

India has still not signed the Council of Europe Draft Convention 2001 on cybercrime. This draft criminalizes cyberattacks, mentions the duty of states to prevent their territories from being used by non-state actors to conduct cyberattacks against other states, and also classifies cyber-crimes as extraditable offenses.

While signing the convention would be a step forward, CERT-In has signed bilateral agreements with many countries on cyberattack investigations and cooperation, and in those agreements, the underlying message has been that India desires support in nabbing attackers and punishing them either with the laws of that land or through extradition to India. CERT-In is also a full member of the Forum of Incident Response and Security Teams (FIRST) and Asia Pacific CERT (APCERT), and it uses those networks extensively in order to reach out to member countries as the need arises.

INDIA'S PERSPECTIVE ON INTERNET FREEDOM

As the largest democracy in the world, India is committed to freedom of speech and expression as enshrined in Article 19 of its constitution. This also applies to all issues related to freedom of speech on the Internet. However, a few provisions incorporated in the IT Act also consider situations where content on the Internet could be monitored or even blocked. They were included primarily to address some sensitive issues that still have the power to create trouble and violence. Thus the Indian government has regulated content in cyberspace through the use of all the avenues mentioned in Article 19 (2) of the Indian constitution that restrict freedom of expression and speech, such as those pertaining to the interests of the sovereignty and integrity of India, the security of the state, friendly relations with foreign states, public order, decency or morality, or in relation to contempt of court, defamation, or incitement to an offense. So for the rules governing the implementation of Section 69 of the IT Act, which covers the monitoring of content in cyberspace, and Section

69A of the IT Act, which covers the blocking of content in cyberspace, the above exceptions may be made. The execution of these provisions is carried out in a procedure that is well established,[30] with committees defined and powers devolved so that checks and balances are included.

So far, efforts have tried to balance national security interests and the freedom of expression in cyberspace. In India, unlike in many other countries, hate speech and other forms of blasphemous content are still very likely to incite communal violence that can spread very fast and often become a major issue. In mid-August 2012, there was an exodus of almost 50,000 people hailing from northeast India from major Indian cities like Bangalore, Hyderabad, Mumbai, Chennai, and Pune after threat content over SMSes (text messages), MMSes (multimedia messages), and social media websites were sent in bulk. The government had to block more than 300 websites and selected social media pages.[31] The current position is a bit tricky, because the government wants due diligence over certain forms of hate content, while the social networking community maintains that it is difficult to technically filter or control posting of third-party content. Social networks in India are classified as intermediaries and are regulated under Section 79 of the IT Act. Under the current rules, they are not responsible for third-party content provided that they exercise due diligence and have nothing to do with the content or its inception, transmission, or reception.[32] However, rules to govern the provisions of Section 79 were introduced in April 2011, and they have become controversial.[33] So far, the yardstick that is followed is that once offensive content is brought to the attention of intermediaries by the user community and notified agencies, the intermediaries must follow the legal steps necessary to deal with it. While the government wants compliance with these laws in letter and spirit, there are situations where much of the content is hosted on foreign servers and might be complying with the laws of the country where the information is uploaded or stored. This issue has to be harmoniously addressed, as societal norms vary across the countries concerned, and the laws of the land will have to be applied in the country of concern.

The response by the government has been prudential over the years as far as censorship of content on the Internet is concerned.[34] The government receives inappropriate or prejudiced calls for blocking websites or specific content on a regular basis, but it has carefully handled them and rarely pulled down websites that are actually legal. The only instance of censorship is the mass blockage ordered in August 2012 after an extraordinary situation surfaced with the potential of disturbing peace and harmony among the communities[35] and thus the potential to lead to public disorder.[36] At the same time, it is pertinent to mention that the government has allowed the Indian site owners to openly offer content that is reasonable and not subject to any form of pre-censorship. It also allows the user community to keep the content generation and management in a healthy state and relevant to the ethos of societal and business norms. Over time, management of Internet content will become more mature as experience accumulates in dealing with these issues. This is not unique to India, but it is an indication of the issues that arise due to growing digital presence and participation.

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE

CYBERWARFARE

India has become one of the top targets of cyberattacks in the world. Ever since the CERT-In was set up in 2004 and began maintaining records of cyberattacks in a more structured manner, there has been a better understanding of the nature and trends of those attacks. However, for the most part, the response to cyberattacks remained reactive until the beginning of 2008. This was due partly to the absence of a national cybersecurity policy and partly to a lack of understanding of the issue in government and the difficulty of aligning agencies for a coordinated approach to cyberwarfare.

A focused approach toward a cybersecurity defense and cyberwarfare strategy started gaining shape in April 2008, when the Indian Army decided to create cybersecurity organizations down to the division level to guard against cyberwarfare and data thefts. The security revamp after the terrorist attacks in Mumbai in November 2008 ensured significant budget allocations for building cybersecurity infrastructures and R&D capabilities. With massive leaks of sensitive data reported by the Toronto-based Munk School of Global Affairs in its study called "Shadow Network" in 2009, the government was spurred to act further. Beginning in 2010, the defense minister started acknowledging the impact of cyberattacks in the major meetings of the armed forces, including in the unified commanders' conference in April 2010,[37] and his message was for all the defense agencies to interact closely with CERT-In, the NTRO, and the Ministry of Home Affairs. He repeated the concerns a month later at the biannual army commanders' conference. In October 2011, the prime minister harped on the same concerns at the combined commanders' conference, as well as on the need to be ready to defend against cyberattacks.[38]

While the focus on cybersecurity defense took a much more focused and visible turn, there was not much reference to the acceptance of the Indian leadership of using cyberattacks as an offensive tool or even to its views on employing attacks and espionage in cyberspace as legitimate tools of warfare. Such information is missing because cyberwarfare programs are still under tight wraps within the government, coordinated between the defense and intelligence agencies. Since the deputy national security adviser is the coordinator for all cybersecurity activities, an offensive strategy would also be coordinated through the National Security Council Secretariat. Most of the cyberattacks directed at Indian critical networks did not result in reciprocal usage of such tools from the Indian establishment. However, according to a book by Jeffrey Carr,[39] the Indian government in August 2010 told its agencies to enhance their capabilities in cyberwarfare. The strategy directed government agencies to develop capabilities to break into the networks of unfriendly countries, set up hacker laboratories, set up a testing facility, develop countermeasures, and set up CERTs for several sectors. The agencies at the forefront of this strategy were the NTRO, the Defense Intelligence Agency, and the Defense Research and Development Organization (DRDO). At the same time, another report mentioned that the government was planning to build a network of ethical hackers to spy on the classified data of hostile nations by hacking into their computer systems.[40]

The legitimacy of cyberweapons as part of military capabilities is not an announced policy of the Indian government to date, nor are there instances of any bilateral discussions happening with any country to support or get trained in any form of offensive cyberwarfare. In fact, the government evaded a direct answer to a pointed question on the same subject in the Indian Parliament[41] and simply made reference to the fact that there are no formal rules of engagement in cyberwarfare at the international or multilateral levels. However, the recent policy debate going on in government circles about defining the national cybersecurity policy has included many references to the need for an offensive element built into the national cybersecurity strategic plan. The expert group set up by the Institute for Defense Studies and Analyses recommended in its May 2012 report the need to lay down red lines, define objectives, and enunciate a doctrine, and also to raise a Cyber Command and to build up offensive capabilities.[42] It also recommended the creation of a pool of trained people such as "Cyber Territorial Army Battalions," who can provide surge capacity to bolster the country's cybersecurity resources during critical periods or in the event of hostilities. It also proposed an institutional structure called the Cyber and Information War Board, to be chaired by the National Security Adviser, which would include members from the government and the industry and have a defined charter of operations. Around the same time, another report submitted by an industry task force under the National Association of Software and Services Companies (NASSCOM), an Indian trade association, also recommended the definition of a cyberwarfare policy that would clarify such issues as the objectives, doctrines, and rules that would govern offensive and defensive contexts and actions, as well as capability development, the roles and responsibilities of different agencies, and coordination and collaboration mechanisms.[43] It emphasized the need for expanding cooperation on cybersecurity with allies and partners in order to increase collective security and participation. This report also mentioned the role of the Ministry of Defense in developing offensive capabilities for net-centric wars.[44]

However, despite such pitches for the need for a cyberwarfare policy and doctrine by the government, there has been no mention of the need to employ hackers and surrogates to undertake cyberspace assignments for the Indian state, and government agencies have not contemplated such an exercise as part of the draft National Cyber Security Policy (NCSP). The fact remains that the covert effort of agencies to involve individuals for specific tasks would hardly be reflected in any defined public policy. At the same time, there are reports of many countries pursuing active cyberwarfare programs, and many of them are actively planning to deploy surrogates and related expertise. In its report, the UN Institute for Disarmament Research mentioned that 33 countries may be doing so.[45] The Indian government strongly believes that this type of warfare should not be pursued by other countries, as such methods defy all conventions of warfare. However, given its location at the receiving end of many cyberattacks from foreign sources, including espionage through cyberspace, the government in India might, with time, change its strategy as far as cyberwarfare is concerned.

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NONTRADITIONAL SECURITY

QUESTIONS POSED TO THE AUTHORS ON
THE SEARCH FOR ENERGY SECURITY

1 What is your country's perception of its current and prospective energy security? How do long-run trends affect these perceptions?

2 In light of these current perceptions, what are your country's strategic objectives with regard to ensuring energy security? Through what means does your country intend to achieve these objectives?

3 How does your country balance supply-side and demand-side factors in ensuring energy security?

   What is the role of markets in managing energy consumption in your national economy?

   How does your country balance the drive for economic growth against concerns about the safety of many new energy technologies (for example, nuclear power and fracking)?

4 What is the nature of the relationship between your government and your national energy companies (NECs)? What is the impact of this relationship on the international energy markets? Does your country see state support for NECs as compatible with an international market that includes other energy companies without state support?

5 Does your country believe that reliance on the international market alone is sufficient for ensuring energy security? If not, what other instruments must your country utilize to preserve its energy security?

   Does your country pursue special bilateral relations with energy-rich states as a supplement to or a substitute for reliance on the global market?

   How does your country manage relations with authoritarian energy suppliers (some with poor human rights records) in light of your country's commitment to responsible international behavior?

6 To what extent is your country's perception of its energy security laden with strategic concerns, and how has that affected its pursuit of energy sources?

   Are military instruments necessary for advancing the goal of energy security, and how can such instruments be utilized?

   What is the significance of secure sea lines of communication for energy security? Is your country comfortable with the current and prospective U.S. role in securing the sea lines of communication to establish a stable international energy market?

THE SEARCH FOR ENERGY SECURITY

ZHA DAOJIONG

CHINA'S ENERGY SECURITY OBJECTIVES

Whether or not China has a clear and coherent energy security strategy—at home and abroad—is a subject for continued observation and debate. Domestically, quality in energy use is taking root, against the exclusive focus on satisfying demand in the past. Internationally, energy informs and derives from the larger question of how China relates to the global order. Chinese understanding and practices of energy security are evolutionary. There has not been and will likely be no straightforward path of energy policies, in either domestic or overseas realms.

In China today it is not even possible to speak of one definitive "Chinese perspective" on energy security. There is much debate on the issue, and pervasive concern surrounds the challenges of meeting the country's consumption needs, while voices in favor of reining in the pace of growth in consumption are proving to be increasingly more persuasive. When it comes to identifying strategies for dealing with the evolution of the country's energy portfolios, stakeholders' perspectives vary. Industrialists put a low cost on par with the security of supply; entrepreneurs see rationalization of investment flows as the key; technophiles argue that engineering is the path to pursue. Individual consumers resist the lowering of their quality of life due to fluctuations of energy prices; environmentalists try to find a voice in affecting extraction and consumption. International relations scholars, meanwhile, weigh the costs and benefits associated with the country's dependence on

foreign sources of supply, oil in particular. Politicians trying to satisfy as many interests as possible in enunciating and implementing national energy policies thus have no shortage of viewpoints to consider.

As an issue for everyday governance, energy does not rank in the first tier for the Chinese government in terms of urgency. The government has retained a separate ministerial agency for food, land, and water management. In order to ensure food supply, the central government issues a "Number One" policy directive, at the start of each calendar year, to exclusively focus on agriculture. Energy has received no similar treatment. In 1993, China turned from a net exporter of crude oil to a net importer. Yet in the same year, the Ministry of Energy was abolished. Debate over the necessity for having a ministerial-level bureaucracy to govern the various components of the country's energy industry has been ongoing and inconclusive, although safety in coal mining is retained as a central government bureaucracy mandate. In January 2010, China did establish a national energy commission, with the prime minister as its director and more than a dozen ministers as members. But thus far, the commission has functioned on a crisis-driven basis. And China's national legislature has not yet held a single hearing on energy as an urgent task to address, which is another indicator of the topic's salience in political circles. In short, observers need to balance research rhetoric about China's energy security against the actual policy attention that energy receives in everyday governance.

> **Against the background of China's path of development in the context of globalization, the question of how China interacts with the outside world in the field of energy will be pertinent for a long time to come.**

Against the background of China's path of development in the context of globalization, the question of how China interacts with the outside world in the field of energy will be pertinent for a long time to come. Difficult as it is to present a comprehensive mapping of Chinese perspectives on the country's energy insecurity, it is worthwhile to attempt to address issue areas that traverse market and strategic issues arising from the overall question of China and the world energy order.

BALANCING CHINA'S ENERGY DEMAND AND SUPPLY

According to the National Bureau of Statistics of China, China's total primary energy consumption reached 3.48 billion tonnes of standard coal equivalent (btsce) in 2011, a 7 percent increase from the previous year. Domestic production stood at 3.18 btsce.[1] This means that roughly 9 percent of total primary energy consumption came from imports. The same source does not offer details on the country's energy consumption.

Studies on China's energy consumption statistics abound, and while they disagree over specific calculations, there is general agreement about the overall picture. To offer an indicator, according to one source that uses 2010 numbers, China's energy mix is as follows: 77.2 percent from coal, 9.8 percent from oil, 4.5 percent from natural gas, and 8.5 percent from hydropower, nuclear, renewable, and other forms of non-fossil energy.[2] Forecasts on future trajectories of change for each category differ from each other according to the scope of inquiry and models adopted for projection.

For the purpose of discussing China's energy security policies, it is less relevant to try to assess the future trends of China's energy mix on a statistical basis, as too many variables in the entire economy as well as the energy industry per se are at play. It is, instead, useful to take note of ongoing debates in China about the wisdom of using a total energy consumption cap—the most widely floated number being 4.2 btsce by 2015—as an indicator of consensus that continued fast growth in consumption is not sustainable. When, among other policy instruments, energy auditing becomes more of a norm on the ground, China has a better chance to rein in total energy consumption, regardless of the actual attainability of a numerical target.[3]

In China, energy intensity—the total amount of energy consumed per unit of GDP—is one of the most important indicators for the country's energy economy planners.[4] The central government makes achievement of energy intensity targets a component of the performance evaluation of provincial government leaders, who in turn take the heads of lower levels of government to task. With energy intensity as one of the working priorities and the setting of a 40–45 percent reduction in China's carbon dioxide emissions intensity by 2020, based on the 2005 level, China hopes to achieve both economic growth and improvement in the quality of energy use.

According to statistics compiled by the International Energy Agency, in 2009, imports represented 15.7 percent of China's total energy consumption.[5] This is numerically different from official Chinese calculations but still indicates that China still retains a fairly high level of self-sufficiency. The imported fuel type on which China is most prominently dependent is oil, which reached 56 percent in 2011, a standard number in Chinese discussions about the country's energy situation. Meanwhile, China's import of oil and natural gas is set to grow as well, both for meeting overall consumption needs and for fine-tuning the current energy mix to address the environmental malaise coming from the high level of reliance on coal.

Two major recent developments outside China have provided the impetus for rethinking the race to expand indigenous sources of supply. The Fukushima Daiichi nuclear power plant accident in Japan in March 2011 led to a one-year halt in China's "great leap" of constructing nuclear power plants, in addition to a comprehensive review of plants already in operation. A year later, it became clear that China had limited its goal of nuclear power development by the end of 2020 to those projects approved prior to the accident. By 2020, China is expected to have an installed capacity of 70 GW of nuclear power, contingent

upon reaching the goal of 40 GW in 2015, based on enhanced safety standards. It should be kept in mind, however, that China's nuclear economy has always been full of debates and that the future development trajectory is likely not to be a straightforward path, either.[6]

The other major overseas development that has attracted Chinese attention is the revolutionary development of shale gas in the United States. Chinese geologists are less sanguine than their American peers in assessing the scale of shale oil and gas deposits in China. Furthermore, there are fierce debates about what it would take to access whatever deposits may exist beneath Chinese soil and, by extension, whether methods and equipment employed in the United States are directly transferrable to China. In late June 2012, it was revealed that only 24 of the 62 experimental wells produced industrial flows, although government regulators encourage more industries to commit themselves in continuing with the push to develop the nascent industry. Three months later, China opened twenty blocks of shale deposits for foreign bidding, hoping to produce 6.5 billion cubic meters of gas by 2015 and 60 billion cubic meters by 2020, up from zero commercial production of shale gas today.[7] Concerns over environmental side effects from such drilling techniques as water fracking, while an issue in America, have yet to enter the public domain in China. But water scarcity in the northern parts of the country surely will be a bottleneck for the industry to reckon with.

> **The development of indigenous sources of energy has always been a foundation of China's energy policy.**

In China, the government still regulates end-use energy prices. It is possible to analogize retail price as one of the three gears—the other two being income per capita of end users and energy industry profits—in a constant motion of grinding against each other. At the more aggregate level, government policy on energy pricing attempts to address competing interests in the overall well-being of the economy, society, and environment. In mid-2012, China began to implement a tiered electricity pricing system for residential use across the country. This, in addition to a gasoline sales tax system adopted in 2009, is meant to dissuade wasteful end-user consumption. For electricity, residential end-users still enjoy an indirect subsidy through government regulation of on-grid tariff rates. For gasoline, the government also sets end-sale prices, although the level is now on a par with the average sales price in the United States.[8] While gasoline price is uniform for industrial, transport, agricultural, and household use, the government offers targeted subsidies in order to provide relief to the agricultural sector.

Economics theory offers a guide for energy prices to be left to the market. But entry points for China's fossil energy subsidies reform have to be selective.[9] The good news is that China's energy policy has the government committing itself to reducing energy intensity by 16 percent over the 2011–2015 period, and carbon intensity by 17 percent.[10] Meanwhile, deepening market-oriented reform of China's energy economy is conducive to reaching the goal of meeting the government's own energy intensity targets.

Coal is treated as the foundational source, both in managing ongoing necessity and in mapping the country's future energy portfolios. Estimates by domestic and international research agencies of changes in China's energy portfolio all place the contribution of coal over 65 percent in 2030. The primary use of coal is power generation and the heating of buildings. For decades, China pursued coal liquefaction in an attempt to substitute oil.[11] The prospects of switching from coal to oil in electricity generation, however, are contingent on cost parity dynamics. Though still a minority voice, Chinese analysts have begun to warn that "China's long-term energy reliance on coal will be unsustainable, unless there are dramatic increases in coal reserves."[12] China in 2009 became a net importer of coal, but the development has not raised concern as contributing to the country's overall insecurity in energy supply. Economics of scale are going to lead to higher levels of coal imports for the coastal region, in part due to increasing costs in accessing coal further west within the country.

CHINA AND WORLD ENERGY GOVERNANCE

The development of indigenous sources of energy has always been a foundation of China's energy policy. But the dichotomy of relying on domestic supply or living with international energy market forces is more of a conceptual exercise than an actual policy choice. As a matter of fact, for much of its contemporary history, China treated fossil fuels as just another set of ordinary commodities. Until the 1990s, oil, coal, minerals, grain, and other raw materials made up more than half of the total value of exports. A key component in central government planning for the energy sector was to amass energy resources for export in exchange for both hard currency and the purchase of more advanced equipment to facilitate domestic extraction.[13] A survey of academic publications in Chinese-language professional journals throughout the 1980s and 1990s reveals that only one article raised questions about the wisdom of treating crude oil as just another item for earning hard currencies. "Security," in terms of overall policy conceptualization, was synonymous with "safety." International commentators were much faster than their Chinese peers in raising alarm about China's shift from a net exporter of oil to a net importer.

When energy did begin to be prominent in Chinese scholarly and policy discourse, around the time that the Iraq War began in 2003, a significant background factor was the emerging uncertainties in the first Bush administration's identification of China as a "strategic competitor." Chinese apprehension about the inaccessibility of foreign oil was partly informed by memories of living under the U.S.-led comprehensive trade embargo after the outbreak of the Korean War to the Kissinger-Nixon détente in 1971. Coupled with the low level of mutual dependence in energy trade between China and the United States, a powerful subliminal assumption is that Persian Gulf oil and other international sources of oil supply might not be allowed to reach the shores of China, just when the country's reliance on

foreign supply is rising.[14] The truth of the matter is that over the past two decades Chinese interactions with world oil markets moved more along the lines of market dynamics than geostrategic considerations.[15]

It deserves notice, meanwhile, that ideological preference for self-reliance is conditioned by feasibility of indigenous resources. For example, development of biofuels can enhance indigenous sources of energy supply, but China pursues a policy of "no competition for land or food."[16] In 2007 China accepted intellectual property terms dictated by the United States to turn Westinghouse's AP1000 nuclear reactor from conceptual model to facility, because relying on the country's indigenous capacities would imply much lower per-unit output in electricity generation.[17]

Alarmist Chinese views about the dependability of foreign supply—oil and gas in particular—result in a part from the country's shallow involvement in world energy governance mechanisms. China is the world's second-largest energy consumer and importer of oil, but it is not a member of the International Energy Agency (IEA), the intergovernmental body designed to look after consumer countries' interests. It is more common for Chinese government agencies to dispute IEA assessments of China's contribution to fluctuation in world oil and gas prices than to work together to address global and domestic concerns. China never joined the Organization of Petroleum Exporting Countries (OPEC), even when it was a net exporter, and agreed to only observer status in the Energy Charter Treaty mechanism, whose designed purpose is to deal with deliberate interruption by producer states to exploration, production, or transit routes. The lack of routine contacts through such forums, understandably, leaves space for second-guessing about ulterior motives when it comes to such issues as world energy governance.

Still, in recent years, China has demonstrated an interest in improved policy oversight in world energy developments. In the 2000s, energy cooperation and collaboration have become a standard topic in bilateral diplomatic activities. On the multilateral front, China is active in virtually all international governmental venues with energy on the agenda, such as the Asia-Pacific Economic Cooperation forum and G8 plus China and other emerging economies. In 2005, China initiated a meeting of energy ministers of major energy consumers (South Korea, India, Japan, and the United States). Chinese interest in holding the forum was focused on stabilizing prices in the world oil trade. Possibly due to the realization of the limited impact of such efforts, the annual event came to an end after 2008. Then in January 2012, Chinese Premier Wen Jiabao called for the G20 framework to be more forceful in tackling the issue of global energy supply stability.[18]

Chinese concerns about politics-driven volatility in the world oil and gas trade are hard to dispel. What is more pertinent, however, is that world energy market dynamics condition policy choices domestically and internationally. For China, total self-reliance is unattainable but should not be dismissed as entirely foolish either, as such rhetoric can result in amassing more resources to promote efficient use of energy and developing alternative sources of supply such as wind and solar power.

China is likely going to continue to "rely on both legs to do the walking." In other words, it will strive to improve efficiency in consumption but without adversely affecting overall economic growth. And it will maximize development of domestic sources of all forms of energy while still accessing foreign sources of supply to make up the shortfall. There is no clear-cut choice between domestic and international dimensions of policy priority. State ownership of land, and by extension of domestic energy resources, offers a sense of security guarantee. But when it comes to external sources, concerns about reliability persist.

ENERGY AND CHINA'S INTERNATIONAL RELATIONS

China's energy companies' overseas activities, especially in oil and gas exploration and production projects in politically volatile countries, have led to a series of questions about how China affects the evolution of world security, whether energy specifically or more broadly defined. The Chinese government's choice of vehicle to systematically respond to such questioning is to produce white papers meant for international consumption. If the sequencing of choice of topic can be an indicator, China's State Council apparently did not feel the need make energy a white paper topic until 2007, more than a full decade after China became a net importer of crude oil and products.[19]

The role of China's national oil companies (NOCs), specifically whether they are agents of state diplomacy, has come into question. Disclosure of interactions among NOCs and government departments, like foreign affairs, is too limited for informed analysis. As agents in domestic governance, NOCs have been operating as business entities since the dissolution of the Petroleum Ministry in 1998. They dominate the domestic oil markets, although the government in 2006 opened, conditionally, the oil retail sector to non-state corporations. Top executives of an NOC belong to the pool of high-ranking cadres, with their appointment and rotation inside and outside the energy business determined by the government's personnel departments.

Meanwhile, an NOC's state ownership is not exclusive. For example, the China National Petroleum Corporation (CNPC) entered into public listing on the New York and Hong Kong stock exchanges in early April 2000. The other two major Chinese NOCs, China Petroleum & Chemical Corporation (Sinopec) and China National Offshore Oil Corporation (CNOOC), are likewise active in international pools of corporate finance. So part of the mission of the Chinese NOCs is to deliver profits to their international shareholders. The listed arms of their operations are also subject to rules of disclosure in international stock markets.

Additionally, international questioning about state ownership of Chinese NOCs cannot easily generate sympathetic hearing among Chinese circles debating energy and security.

When foreign oil companies enter the Chinese upstream markets, state ownership of the Chinese partner (required by law) is not questioned. Also, (re)nationalization of energy resources is an increasing norm, though not in the developed economies. In addition, when CNPC and BP, acting together, won a service contract in Iraq's Rumaila oil field in 2009, ownership of the Chinese partner was not called into question. In any case, Chinese NOC experts see value in pursuing vertical integration between the upstream and downstream sectors.[20] When the level of international vertical integration with the Chinese oil and gas markets increases, it will positively contribute to reducing panic and suspicion driven policymaking.

International critics point to state financing of Chinese NOCs, which is seen as giving them an unfair competitive advantage when bidding for overseas projects against peers from countries that do not offer similar support. The Chinese counterargument is that many foreign companies that have entered the Chinese market since the early 1970s have benefited from development loans from their home governments. Moreover, before venturing overseas, China's energy industry was exclusively devoted to tackling domestic geological conditions. As such, Chinese energy companies developed equipment and skills more suitable for operations within the country. That makes the technological aspects of Chinese bidding often less competitive. Government aid for contracts became the necessary second-best choice. Chinese NOCs, in turn, hope to become more competitive in equipment and technological know-how by going through a learning-by-doing process. Without access to a foreign asset, that learning is impossible.

> **The security of sea lines of communication is, of course, critical to China's energy security.**

The security of sea lines of communication is, of course, critical to China's energy security. Ever since the early 1970s, transportation of oil and gas from the Middle East and Africa to China has not been subjected to deliberate interruption. Because of the rash of maritime piracy in recent years, China has joined other East Asian nations in collective piracy tracking and response in the international watercourse stretching from the Indian Ocean through the Strait of Malacca to the South China Sea.[21]

Chinese analysts express concern about the extensive role that the U.S. Navy plays in affecting passage of oil tankers through the various straits around the world.[22] Military contacts between the United States and China are irregular and subject to frequent breakdown due to Chinese opposition to U.S. arms to sales to Taiwan and other changes in overall political relations between the two governments. That leaves a large space for second-guessing the intent of naval and other military actions and postures. For example, talk of the Strait of Malacca being a "choke point" is often interpreted in Chinese circles as meaning that U.S. Navy blockage of Middle Eastern and African oil shipments bound for Chinese shores is a viable option. Such apprehension provided at least a rhetorical cover for constructing an oil pipeline linking the western coast of Myanmar and China's Yunnan province. In reality, the

pipeline can hardly be as strategic as the security-minded proponents suggest.[23] The encouraging news is that under the auspices of the U.S.-China Strategic and Economic Dialogue, the two countries' military establishments have found a venue for regularized contacts and consultations.

One should also balance articulations about ill intent by the U.S. military against options seen feasible by the civilian sectors of society. The Chinese shipbuilding industry's call for "Chinese ships carrying Chinese oil," which was heard in the late 1990s, has by and large dissipated. The reality of the matter is that the international oil shipping industry has served China's needs well. The Chinese maritime shipping industry's specialization in dry cargo trade is conducive to the composition of products and parts trade between China and the rest of the world.

For international maritime shipping lanes to be kept from deliberate sabotage is of course in China's interest. The Chinese navy's participation in the Gulf of Aden sets an example for future collaborative efforts. In the more recent years, such events as Chinese industrial workers being kidnapped in volatile African countries have indeed led to calls in the Chinese media for military and paramilitary protection of Chinese lives and related economic interests (oil and/or other forms) overseas. But serious thinking would challenge such posturing by pointing to the limits of the U.S. military operations in unstable societies and the large gap in capacities on the part of China. It is possible to speculate, meanwhile, that as the American and Chinese militaries go through a process of enhanced socialization with each other in the various noncombat uses of military programs involving other Asian armed forces, prospects for reduced mutual apprehension stand a chance of reduction.

The issue area that clearly separates Chinese and Western thinking about the security implications of energy acquisition is investment in fragile states. A standard Chinese observation is that in being latecomers in the global competition for oil fields, Chinese companies have no choice but to accept a higher risk premium by picking up fields left over by Western companies: those that are geographically more difficult to access and located in countries that are either politically unstable or in diplomatic difficulties with Western countries.

Meanwhile, Western initiatives such as the Extractive Industries Transparency Initiative are receiving a sympathetic hearing among agencies like the China Export and Insurance Corporation, which plays a role in financing the country's energy companies' overseas projects.[24] Skillful management of political risk in cross-national investment projects is more a result of learning by doing than one of ideological conviction. Adverse developments such as civil wars and protests against Chinese business presence in more and more host countries in Africa and elsewhere are reminding China of the limits of relying solely on government-to-government contact for ensuring the safety of Chinese workers on the ground. As a result there are opportunities for China to fine-tune investment policies when it comes to challenges of addressing a "resource curse" in various countries.

China is finding itself caught in a tussle of allegiance between those states that demand diplomatic support in exchange for the continuation of oil contracts and the United States and its political and security allies, which argue that China should be proactive in effecting positive political change in resource-rich but politically unstable states. After all, when the United States and its allies apply economic and political sanctions on certain states, Chinese (energy) business presence contributes to keeping those governments in power. The standard Chinese reference to noninterference in another state's domestic affairs is in reality recognition of the limits of China's influence. Oil is a worldwide fungible commodity, and no state favors China by locking itself into a long-term supply arrangement. China's wish to increase the global competitiveness of its energy industry—in equipment and technological services—dictates that Chinese foreign policy has to continue to walk the tightrope of international political dynamics, most of which is beyond its control.

Finally, as has been documented, Chinese overseas investments in oil and gas production has contributed to enlarging the global pool of supply. Partly due to technological incompatibility between Chinese refining facilities and the foreign oil its companies produce, only a marginal portion actually gets shipped back to China.[25]

CONCLUSION

Energy security is a complex subject, especially in relation to China. In this chapter, the key message is that the usual dichotomies in international commentary about China and world energy security, though conceptually neat, do not stand up well when examined against Chinese practices in energy policy and diplomacy. There is no dearth of rhetoric, Chinese and international, that portrays an imagery of China versus the West. But at the end of the day, the Chinese energy markets (finance, exploration, trade, and processing) have been, and will continue to be, part of the global energy market dynamics. Like other countries, China is constantly going through a process of learning to relate itself with the rest of the world, at the market and policy levels. It is infeasible to contemplate energy policy or diplomacy that prioritizes competition for the sake of competition, whether at the market level or in diplomatic/political terms.

Harmonization of policy practices in fossil energy extraction in third countries is a lofty goal to pursue. Though not a focal point of this chapter, a meaningful direction of effort is to promote company-level tie-ups between Chinese and international (particularly Western) entities. Such connections can contribute to fostering a community of stakeholders whose self-interest is in lessening tensions in the continuous search for improvement in world energy governance.

NOTES

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THE SEARCH FOR ENERGY SECURITY

SUNJOY JOSHI

INDIA'S ENERGY SECURITY OBJECTIVES

The most recent definition of India's energy security objectives, according to the Planning Commission's Report of the Expert Group on the Integrated Energy Policy (IEP),[1] is to "supply lifeline energy to all citizens irrespective of their ability to pay for it as well as meet their effective demand for safe and convenient energy to satisfy their various needs at competitive prices."[2]

Given this objective, the Indian energy security debate continues to oscillate between the contradictory pulls of affordability and competitive pricing. Mirroring this debate, the IEP Expert Report recognizes the need for making available "lifeline energy consumption for those who cannot afford energy at market price … through subsidies."[3] But then, as a counterpoint, it declares that "transparent and competitive markets that offer a level playing field to all participants, and are independently regulated are essential to the creation of an enabling environment for domestic and foreign investment flows."[4] The question that arises then is whether energy security in India has become prey to conflicting demands that are in the final analysis irresolvable.

In the Indian context it is safer to talk of energy policies in the plural rather than in the singular, as various ministries speaking on behalf of diverse stakeholders seek the accommodation of divergent and often conflicting interests within the omnibus statement of the country's energy security objectives.

Even with commercial energy accounting for a little over 75 percent of all primary energy consumption, the Eleventh Five Year Plan document acknowledged India as the world's seventh-largest energy producer.[5] The approach paper to India's latest Twelfth Five Year Plan[6] expects the Indian economy to grow at 9 percent annually, increasing in nominal terms from $1.6 trillion[7] to nearly $2.5 trillion by 2017. This pace would make the Indian economy reach nearly $7 trillion two decades from now.

Earlier optimism about Indian growth rates lies battered by the eurozone debt crisis abroad and a series of corruption scandals at home. The retreat of foreign capital, a weakening local currency, and depressed business confidence in the face of stalled reforms all reflect both the cause and effect of an economic slowdown that diminished growth to just 5.3 percent (annualized) in the quarter ending March 2012.

Assuming that this is a temporary blip and that India would resume its strong economic growth, an energy elasticity[8] of 0.80 would increase its energy requirements at an annual rate of 6 percent from 523 million tonnes of oil equivalent (MMTOE) in 2011–2012 to 738 MMTOE by the end of the twelfth plan.

As table 1 shows, this would imply a coal demand of 421 MTOE, about 50 percent above the demand in 2011. The IEP Model, working at a slightly more modest 8 percent growth, projects the total demand at 681 MTOE by 2016–2017 and 1,702 MTOE by 2031–2032. The IEP model also projects a higher contribution by nuclear energy compared to thermal fuels.

TABLE 1. Total Primary Commercial Energy Demand: Actual (2010–2011) & Projections (million tonnes)

	ACTUAL 2010–2011	XII PLAN PROJECTION 2016–2017 9% GDP	8% GDP GROWTH SCENARIO IN IEP MODEL		
			2016–2017	2021–2022	2031–2032
CRUDE OIL	164	205	214	278	486
NATURAL GAS	58	87	43	59	104
COAL	282	421	389	552	1,022
HYDRO	10	15	10	11	13
NUCLEAR	7	9	24	32	76
COMMERCIAL RENEWABLES	1	1	1	1	2
TOTAL	522	738	681	933	1,703

Source: Planning Commission, *Integrated Energy Policy* and Planning Commission, *Faster, Sustainable, and More Inclusive Growth*.

Today, given a per capita availability of 780 kilowatt-hours (kWh) of power, among the lowest in the world, more than 40 percent of the Indian population lacks access to electricity. Across states the per capita availability ranges from as low as 118 kWh for Bihar to over 2,000 kWh for Goa.[9] Given these disparities, more than $750 billion would be needed to ensure universal access to electricity and clean cooking fuel by 2030.[10] Thus, the dual objectives of catering to a rising commercial energy demand, while simultaneously addressing issues of sheer access to modern energy, frames the curious definition of energy security found in the IEP document. All long-term demographic and economic trends serve to highlight these contradictory imperatives. The former demands efficient allocation of resources through competitive market-based pricing, while the latter forces the state to repeatedly intervene with price controls in an effort to improve access.

BALANCING INDIA'S ENERGY DEMAND AND SUPPLY

Almost all agencies, including the government, project that India will continue to meet the bulk of its commercial energy demand from fossil fuels. As shown in table 2, coal will continue to account for almost 70 percent of all power fed into the grid. While coal is abundant (India is the world's third-largest producer), production and distribution inefficiencies make it difficult to fuel even existing plants. The monthly peak power shortage—the gap between demand at its highest and available supply—around 7.5 percent at the moment, can on occasion climb as high as 12 percent.

Assuming that a 1,000-MW coal-burning plant would require 4.38 million tonnes of coal per annum, with 74 percent of the capacity addition (of 100,000 MW) projected in the Twelfth Plan coming from coal, the estimated requirement for domestic coal would reach 761 million tonnes.[11] With the state-run Coal India Limited responsible for the bulk of these supplies, availability would be hard-pressed to increase beyond 550 million tonnes. Therefore should the plan targets be realized, the deficit would be 211 million tonnes by the end of 2017. However, plan targets have been rarely met: The Eleventh Plan had targeted 78.7 GW of grid power, and actual realization has been barely 50 GW.

Gupta, Shankar, and Joshi have estimated that India could attain a maximum of 300 GW of coal-fired capacity by 2030.[12] Assuming all new capacity would be super-critical, this capacity would require 1.45 billion tons—a figure that matches the projections given in the IEP. However, given the constraints in coal quality, and the infrastructure for production and handling, India's import requirements would probably be over 320 million tons at this stage.

The logical question arises, from where would India seek to acquire these growing imports? Over the next two decades China and India, between them could require additional imports of close to a billion tonnes: 660 million for China and 300 million for India. That

represents 80 percent of all the incremental demand for coal in the world. On the supply side, the only significant increases in exportable coal would probably be from Australia, Mozambique, Botswana, Colombia, and Russia. These, too, would potentially be limited to 320 million tonnes.[13] What this mismatch does to international coal prices can only be guessed.[14] Besides international competition for securing supplies and the price risks involved, inadequate growth in the infrastructure to handle coal imports will probably play a spoiler role.

TABLE 2. Share of Fuels in Electricity Generation

FUEL	INSTALLED CAPACITY (MW) MARCH 2012	PERCENTAGE SHARE	UNITS GENERATED	PERCENTAGE SHARE
HYDRO	38,990	19.51	112,050	12.72
NUCLEAR	4,780	2.39	32,270	3.66
RENEWABLE	24,503	12.26	27,731	3.15
COAL	112,022	56.05	612,670	69.54
GAS	18,381	9.20	93,310	10.59
DIESEL	1,200	0.60	3,000	0.34
TOTAL	199,876		881,031	

Source: Central Electricity Authority (CEA), Government of India, 2011, www.cea.nic.in

Uncertainties in coal supply are already affecting the planned buildup of coal-fired capacity. Private investors are finding it difficult to access finance. Imported coal raises the price of power beyond the paying capacity of distribution companies already struggling with highly distorted power tariffs ranging from free power for farmers to the highest tariffs in the world (on purchasing parity basis) for industrial consumers. The obvious answer—letting power tariffs move with fuel prices—conflicts with the objective of affordable access. However, with 25,000 MW capacity (8,000 MW in gas and 17,500[15] MW of coal) becoming stranded for lack of fuel, the Ministry of Power has now been forced to relax tariff rules (following from tariff-based bidding introduced for licensing "Ultra Mega" power projects) to allow fuel costs to be passed on to consumers.[16]

If coal cannot fuel India, what about gas? Here, too, lagging domestic production despite large stated reserves[17] has created a growing shortfall. Only six discoveries out of 106 announced under the New Exploration Licensing Policy have commenced production. The D1–D3 gas fields, which were expected to almost double India's domestic gas production, seem to have run into major technical issues: Against an initial projection of 80 million metric standard cubic meters a day (MMSCMD) from these fields, production has fallen below

40 MMSCMD.[18] Liquefied natural gas (LNG) imports began in India only as recently as 2004 and were expected to find it difficult to compete with artificially low-priced domestic gas. Yet, already plans for more LNG terminals are afoot, as are frantic moves to sign up for the transnational pipeline from Turkmenistan known as the TAPI.[19] The strategic question is, if Indian homes can afford piped gas from Turkmenistan, can other low-hanging fruit such as the IPI (Iran-Pakistan-India) pipeline be far behind?

Domestic production, which had peaked at 51 billion cubic meters (bcm) in 2010–2011, has already declined to 46 bcm in the following year, leaving a gas deficit that is currently more than 100 MMSCMD. Imports in 2011–2012 rose to 35 MMSCMD.[20] Some analysts believe that gas demand could double, to 320 MMSCMD by 2015 and 480 MMSCMD by 2021–2022.[21] With a slowdown in new exploration, the supply of domestic gas, meanwhile, is struggling to maintain current levels of 110 MMSCMD, leaving a shortfall of 210 MMSCMD by 2016–2017 and 370 MMSCMD by 2021–2022. A recent policy brief published by the Observer Research Foundation estimates that India's import dependence would then increase tenfold.[22]

Currently India already imports nearly 76.4 percent of its oil, 27 percent of its gas and 20 percent of its coal. In 2011–2012, the net[23] oil import bill rose by 32 percent to cross $90 billion.[24] Domestic oil fields are maturing, production is declining, and companies complain of stifling regulations and controls on pricing and markets. Domestic exploration has faltered. International oil companies remain wary of investing in exploration blocks. Only eight of the 37 companies that bid in the last round of auctions were foreign companies, down from 21 in 2008.

Theoretically, if India could exploit new technologies for deepwater exploration, or shale extraction to meet even a small proportion of the cumulative increase in demand, it would save considerable amounts on its oil imports. While there have been some initial estimates of shale reserves in the country, with no policy road map in sight, exploration is at a nascent stage.[25]

Alternative options are limited to nuclear, hydro, or renewables. As seen in table 2, out of a total installed capacity of 200 GW, the combined capacity of nuclear, hydro, and renewables is 68 GW, in other words, 34 percent of the total installed capacity. However, because of low plant load factors for hydro (35 percent) and renewable (20 percent), the three account for barely 20 percent of the power fed into the grid. While the combined capacity from these three sources could more than double to 142 GW by 2021–2022, electricity generation from these sources is likely to reach only 378 million kWh by 2021–2022. With demand likely to be in the range of 2,000 million kWh, the share of nuclear, renewable, and hydro would remain below 19 percent.

Given India's fuel constraints, there has been understandable even if muted enthusiasm for nuclear energy. India's uranium reserves have a low recovery rate, and available resources can support up to 10,000 MW. However, with practically unlimited resources of thorium, emphasis on all long-term energy policy planning has been on the three-stage thorium cycle.

Gupta, Shankar, and Joshi point out that India's ambitious target of setting up 63,000 MW of nuclear capacity by 2032 is unlikely to be met.[26] But even a modest 40 GW capacity by that time, if established, would "represent a 6 fold increase in 22 years accompanied by very significant development and maturation of breeder reactor technology … [putting] India in an excellent position to transition to carbon-neutral systems after 2032, through rapid build-up of nuclear power." Therefore, even if the nuclear sector escaped from its history of massive underperformance, nuclear energy as a viable option does not really start making a substantive difference until after 2050.

> **With land and water resources being stressed, it is inevitable that any move to induct technologies like fracking is also likely to elicit strong negative responses from local stakeholders.**

Post-Fukushima Daiichi, direct civil action against nuclear plants has become increasingly aggressive. The Kundakulam plant in Tamil Nadu, in the works since 1988, may finally be nearing commissioning. But the government is already looking at alternatives for the Haripur site in West Bengal, and Jaitapur in Maharashtra has seen violent protests. Mass protests have also stalled and delayed major hydro projects in the country. With land and water resources being stressed, it is inevitable that any move to induct technologies like fracking is also likely to elicit strong negative responses from local stakeholders.

THE ROLE OF NATIONAL ENERGY COMPANIES

Despite reforms begun in 1991, the government retains an overwhelming presence in the energy sector through National Energy Companies (NECs). They are embedded in every part of the energy supply chain. Coal India Limited remains the largest coal-producing company in the world. Besides NTPC, which is the largest thermal power generator in India, State Electricity Boards are in charge of electricity distribution. The Oil and Natural Gas Corporation (ONGC), the Indian Oil Corporation (IOC), and GAIL India Ltd. are three of the largest oil and gas companies involved in upstream, midstream, and downstream activities.

However, post-reforms, the relationship between the government and the NECs is no longer a simple one. State control does give the government leverage to administer subsidies through price controls. It also diminishes the chances of a truly level playing field between private players and state-owned entities, which continue to command far greater trust and faith than their private counterparts.

However, with varying degrees of divestment, NEC boards have had to be more responsive to concerns of other investors. The government has been forced to grant far greater

autonomy to these boards. The role of the Planning Commission and other government agencies in their operations and business decisions has diminished. Among themselves, NECs have become highly competitive, making forays into each other's turf.

Simultaneously, they are not averse to using their special status to garner state support against competition. In practice, this has been far more effective at home than abroad. As an example, the government flirted with serious price reform in the oil sector only once, in the late 1990s, leading to the complete deregulation of certain petroleum product prices in April 2002. Refining having been already de-licensed, India for the first time had a surplus in refined products. Under deregulation, private marketing companies rushed in to set up retailing infrastructure with an alacrity that captured a 15.2 percent market share in less than two years.[27] However, spiraling oil prices by 2005 brought not just the reintroduction of price controls, but private companies being denied recourse to discounted domestic crude as well as compensatory government bonds that were available to state marketing companies. Consequently, private retailers were squeezed out of the market, and the private refineries focused their attention on the export market.

In a similar fashion, much of the thrust for equity oil abroad is largely driven by the NECs themselves, which tend to make good political use of the discourse of energy security in order to get the state to approve their overseas acquisitions. Chinese and Indian National Oil Companies (NOCs) have been in active competition for resources across the globe. The isolated examples of cooperation between the two have been in countries like Sudan and Syria, where they have used each other's presence as an insurance against possible international opprobrium.

NECs such as ONGC have thus obtained a few commercially strategic assets in politically fragile and contested countries at a bargain.[28] However, in most other projects, the ONGC has faced stiff international competition, most of it from Chinese companies. While the argument of energy security comes in handy for obtaining the necessary government approval, during actual negotiations the ONGC prefers to work directly with the company floating the offer and the host government rather than through diplomatic channels. This is largely because oilmen often do not have too much faith in diplomacy and are always wary of commercial details of the deal becoming available to the public, or worse, to competitors. ONGC has yet to win a bid where it was not the highest bidder.

With the government struggling to keep prices at the pump in check, the underlying impetus for the NECs often comes not from concerns from energy security, but rather from the need to invest cash surpluses and allocate financial resources before they are appropriated as dividends or forced discounts to downstream marketing companies. In this manner, the behavior of NECs is no different from their private counterparts, which in the face of regulatory and political risk choose to invest overseas rather than in more risky climes at home. In fact, for NECs, the risk of appropriation of surpluses by the majority shareholder (the state) being far higher, they can afford to be more aggressive in bidding for acreage overseas. More than concerns of energy security, these are the impulses that may have led

Indian and Chinese NOCs to outbid each other in geographies as diverse as Latin America, Africa, and Central Asia. It is this aggression, more than state backing, that forces out competition.

However, the aggression has its downside. Overvaluation of assets by the NECs may have locked them into unprofitable projects, or at least projects that can be viable only if crude prices were to remain over $100 a barrel.[29] Therefore, it remains debatable whether overseas acquisitions add to national energy security. Very little if any of the oil or gas produced comes to the home country, and on the rare occasions that it does, it is brought at internationally traded market prices. As far as their impact on international prices are concerned, overseas investments by ONGC Videsh Limited consist of nine producing assets, four development projects and nineteen exploration projects. Its total investment of $5 billion cannot be of much consequence in a global upstream spend that exceeds $450 billion annually.

In fact, oil equity in foreign countries by NECs might just contribute to the overall political risk exposure. How far should India get involved in problems its NECs may face, say, in case of counterclaims over acreage in the South China Sea?

ENERGY AND INDIA'S INTERNATIONAL RELATIONS

India imports most of its oil from Saudi Arabia, Iran, and the United Arab Emirates. The regime[30] of sanctions on Iran has forced a scaling down of imports due to increased political risk as well as hurdles in the mechanics of doing business, especially making payments.

Globally integrated crude markets ensure that there is little if any cost benefit in owning significant oil equity abroad. Consequently, as already pointed out, hardly any oil produced by NECs from assets overseas ever comes to India either directly or through swap deals. The same markets also ensure that India need not be dependent on any particular country for sourcing its crude supplies. Its relations with countries such as Iran therefore have to be understood in the larger geopolitical construct outside of its need to secure oil or gas.

The coal market, however, until recently, was perceived differently. Significant price differentials could exist based on quality considerations and preferential rates. Thus energy security considerations did lead to a push for acquisitions abroad.[31] However, the calculations of major power producers banking on cheap imports from Indonesia on the back of coal equity there seem to have gone terribly wrong with the Indonesian government linking the price of coal exported from the country with a benchmark based on international prices of coal.[32]

Approximately 65 percent of the world's oil flows through the Strait of Hormuz, making it a veritable oil supply choke point. This significance of the strait is unlikely to diminish over the next few decades. The region accounts for about 70 percent of India's oil imports,

50 percent of China's imports, and 75 percent of Japan's imports. In 2010, the United States imported 9.6 million barrels per day (mbpd) of crude oil, of which only 18 percent was imported from the Persian Gulf.[33] Quantity-wise, though, this 18 percent (1.7 mbpd) roughly equals the combined imports of China and India from the Gulf.[34] According to the IEA, an extended closure of the Strait of Hormuz could remove 25 percent of world oil supply from the market, more than twice the amount during the 1970s oil crises.

However, India has never, at the policy plane, positioned its energy security within the larger security discussions. The United States spends $32 billion to $72 billion a year in securing the Persian Gulf.[35] There is a perception in the international arena that India and China have been free-riding on the U.S naval forces both in the Pacific and the Gulf. Therefore the reluctance of the United States to contribute in the region can lead to vulnerability for two reasons. First, the Indian Navy will need to fill the security void in the Indian Ocean. Second, China will step up its engagements in the region, sparking what could be a veritable securitization race.

However, the fact is that there is a substantial degree of interdependence as far as India, China, and the Gulf Cooperation Council states are concerned. Both India and China have a mutual interest in keeping the sea lines of communication secure, especially from threats by non-state actors. That is why the Chinese Navy finally started to cooperate with the Indian Navy on piracy patrols in the Horn of Africa in 2006.

While the United States may want India to play a more leading role in the Indian Ocean, India, for its part, is unwilling to be seen as a "hedge" against perceptions of increasing Chinese influence in the region. While reluctant to take on the leadership mantle, however, it is not averse to playing the role of the "unobtrusive fulcrum" in the Indian Ocean.[36] The initiative on the Indian Ocean Naval Symposium—seeking to encourage maritime cooperation among the littoral states—must be seen in this light.

Both doctrinally and in preparedness, the Indian Navy proceeds on the assumption that its energy lifelines are vulnerable. It also has a dedicated Offshore Defense Advisory Group to look into the safety of offshore installations. Over the years, there has been a steady increase in its expeditionary capability, a growth that has been nudged to some extent by growing overseas energy assets.[37] However, far beyond the capability aspect lies the bigger question of what could prompt the use of such force and to what degree. The Indian political leadership has, in general, been risk averse. It is willing to display its prowess in joint initiatives and multilateral anti-piracy operations but would definitely be wary of expeditionary campaigns to protect assets overseas. Add to this the debate over whether investments overseas should be considered strategic national investments at all. If they are simply commercial enterprises, then they need to look to the host country rather than the Indian Navy for their securitization.

ENERGY GOVERNANCE: NATIONAL AND INTERNATIONAL

As with other international governance structures, there may be reluctance on both sides about countries like India and China joining these bodies. Voting shares in the IEA continue to be based on 1974 GDP ratios, with the United States having a dominant share.

With more than 90 percent of incremental energy demand over the next two decades coming from non-Organization for Economic Cooperation and Development countries, bodies like the IEA need to undergo basic structural changes much like the International Monetary Fund and the World Bank have done. The demands for reconfiguration of these bodies or for the creation of new, more representative bodies (similar to the move toward creating a BRICS Development bank that was articulated during the recent Delhi Declaration at the BRICS summit) may have been far stronger but for the fact that institutional mechanisms and the structure of energy governance itself within countries like India and China remains a major stumbling block for their entry into these bodies.

> **Lack of transparency in energy pricing creates opportunities for arbitrage and rents, a political economy that creates the constituency for its perpetuation.**

Direct energy subsidies on petroleum, fertilizer, and electricity amounted to $37 billion in 2011–2012. The oil marketing companies (all NECs) reported under-recoveries of $27 billion, of which approximately $10 billion was compensated through discounts in crude prices from upstream NECs, with the remainder coming as direct assistance from the government.

Price controls have often become a way of keeping subsidies off the government's balance sheets by passing them on to the balance sheets of companies. However, they also lead to inefficient allocation of resources, which prevents market-determined fuel substitution by distorting consumer choices.

Furthermore, lack of transparency in energy pricing creates opportunities for arbitrage and rents, a political economy that creates the constituency for its perpetuation. At the same time, price controls inhibit investor interest in domestic exploration. They engender huge uncertainty in planning for the balancing of demand and supply, which react more to government decisions rather than market signals.

Given the high degree of import dependence, and the isolation of the national energy market, its lack of integration with global or even regional markets becomes detrimental to attracting investments as well as technology for expanding the energy infrastructure so vital to the country's energy security. Ultimately, both access as well as affordability are impacted negatively. This is the dilemma that underlies the core terms in which India has chosen to define its energy security objectives.

NOTES

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22. ORF, "Dash for Gas."

23. Because of massive refining capacity expansion by the private sector, India also exported $58.5 billion worth of petroleum products. Its total oil imports were thus close to $150 billion.

24. Petroleum Planning & Analysis Cell, www.ppac.org.in.

25. Reserves have been found in the Cambay, KG, Cauvery, and Assam-Arakan Basins.

26. Gupta, Shankar, and Joshi, "Development, Energy Security and Climate Security" and Katakey, "First India Shale Gas."

27. This includes LPG and SKO, both subsidized products being marketed exclusively by public-sector companies. If these are removed, the share of the private retailers is higher.

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30. Since India does not have very significant exports to Iran, it has proved difficult to work out barter or alternate arrangements to pay for Iranian crude.

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QUESTIONS POSED TO THE AUTHORS ON
ENVIRONMENTAL ISSUES

1   What is your country's perception of challenges to its environment? How do long-run trends affect these perceived challenges?

2   In light of these perceived challenges, what are your country's strategic objectives with regard to preserving its environment? Through what means does your country intend to achieve these objectives?

3   What is your country's perception of collective challenges to the global environment? How do long-run trends affect these challenges?

4   Does your country believe that the critical challenges facing the global environment are best dealt with through independent national solutions, regional organizations, multilateral negotiations among key states, global negotiations among all states, or the existing institutions of international governance?

    From your country's perspective, should international environmental agreements have a high degree of formal obligation?

    Does your country consider it necessary to delegate external authority to ensure individual state compliance with any international environmental agreements?

5   How does your country balance the drive for economic growth against the health of its environment? How does your country balance the drive for economic growth against the health of the global environment?

6   What does your country perceive as an equitable global outcome for any future international agreement on climate change?

    How does your country balance the historically inequitable contributions of individual states to climate change against the immediate challenges faced by the international community?

    What is your country's perspective on the tiered system implemented by the Kyoto Protocol?

    How does your country perceive the results of the 2009 Copenhagen Climate Change Conference? The 2011 Durban Climate Change Conference?

    If a negotiated climate change treaty regime appeared as a real possibility, what contributions would your country be willing to make in order to realize it? What parts of its stated position would your country be willing to compromise on?

ENVIRONMENTAL ISSUES

ZHANG SHIQIU

CHINA'S DOMESTIC ENVIRONMENTAL CHALLENGES

As one of the most dynamic global economies, China has been enjoying almost double-digit growth for the past thirty years. In 2010, China became the second-largest economy in the world, with a GDP of $5.9 trillion.[1] A year later, its GDP reached $7.3 trillion.[2] However, given China's huge population, per capita GDP was only $4,382 in 2010[3] and $5,432 in 2011,[4] which put China as the 94th and 89th richest country in the world, respectively, according to International Monetary Fund data.[5] The accelerated growth caused severe environmental and social imbalances, accompanied by developmental gaps and geographical inequity between east and west, urban and rural areas, and developed coastal and undeveloped or developing inland areas, as well as among various social groups.

Some of China's cities are among the most polluted in the world, and the deleterious health effects have attracted the attention of academia, the government, and the public. The scale and intensity of China's environmental problems overall are arguably greater than in any country in the world. Although tremendous efforts have been made to control and mitigate environmental damage, the challenges remain complicated because of the concomitant need to pursue social and economic development and to continue the process of globalization. China is urgently seeking innovative ways to pursue a "leapfrog development" that is distinct from the traditional model of industrialization that today's developed countries experienced. A fresh approach is vital if China is to maintain acceptable environmental

quality, control damage to the health and welfare of the public, and respond to international pressure to take a leading role in global governance, especially as it relates to climate change, all the while ensuring continued economic growth.[6]

POLLUTANT EMISSIONS CONTROL CONTINUES TO BE A MAJOR CHALLENGE

Because of the fast growth of China's economy, its huge population, and rapid urbanization, emissions of major pollutants have been increasing year after year. China today contributes more than any other country to the world's total emissions in major categories of pollution. For example, China became the world's largest emitter of sulfur dioxide by 1990, chemical oxygen demand by 2001, nitrogen oxide by 2008, and greenhouse gas by 2010. In addition, it became the world's largest energy consumer in 2009.[7]

At the same time, energy efficiency and emission control have improved significantly. In 1978, China's energy consumption per unit of GDP (based on 10,000 Chinese renminbi) was more than 15 tons of coal equivalent (TCE), but by 2010, this had dropped to 1 TCE. In 2007, China finally reversed the trend of growing pollution emissions. From 2005 to 2010, chemical oxygen demand declined by 12.5 percent and sulfur dioxide emissions went down by 14.3 percent, while energy efficiency improved by 19.1 percent.[8]

It is projected that the sulfur dioxide, chemical oxygen demand, ammonia nitrogen, and nitrogen oxide emissions will be reduced by 8 percent by 2015 from their 2010 levels and that energy efficiency will be further improved by 16 percent over the same period.[9] Further, prior to the UN Climate Change Conference in Copenhagen in 2009, China announced a commitment to reduce its carbon dioxide emissions per unit of GDP by 40 percent to 45 percent by 2020 compared with 2005 levels and to use non-fossil fuels for about 15 percent of its energy needs. Given the need for sustained increases in economic growth and living standards, these are very ambitious targets.

HUMAN AND ECOLOGICAL HEALTH IS A CONTINUING AND INCREASING CONCERN

Although progress has been made in improving environmental quality, the overall quality of China's environment remains poor, and the social, economic, and human health impacts of pollution and global climate changes greatly concern both the Chinese government and the public. The government is spending significant resources to address the issue. In 2008, total investment in projects and programs to clean up the environment was about 1.49 percent of GDP, and further increased to 1.67 percent of GDP in 2010. This compares to just 0.5 percent of GDP spent on environmental programs in 1981. In addition, about 37.8 percent of the national stimulus package introduced to combat the global financial crisis in 2008–2009 went toward environmental projects to address domestic pollution and climate change. According to government plans, total expenditures on the

environment will continue to expand in the future, accounting for 2 percent to 2.5 percent of GDP by 2020.[10]

Improvements in environmental quality have been observed since the early 2000s. In 2011, for example, 89 percent of the 325 cities monitored for air quality were able to achieve the national government's second-grade air-quality standards, compared with only 66 percent in 2001. For the 469 monitored sections of 203 rivers, 39 percent were evaluated as "polluted" in 2011. While admittedly an unbecoming number, this is still a large improvement from 2006, when fully 62 percent were determined to be polluted.[11] China still has a long way to go to control incremental pollutant emissions and clean up the accumulated pollution, but these changes point to a brighter future. Moreover, public campaigns to monitor fine particulate matter since 2011 raised new public concerns and awareness about accurate measurements of air quality. The impacts of pollution on human health are widely recognized, and public debate is growing over the price China has paid for "blindly" pursuing economic growth. Although the methodologies and scales of studies by several scholars differ, their estimates of the cost of environmental damages are large, accounting for 3 percent to 8 percent of GDP.[12]

With regard to the immediate global climate challenges to the world community, China takes seriously the scientific warnings issued by the Intergovernmental Panel on Climate Change. In fact, unlike in the West, there is strong consensus within China's scientific community that climate change is real and is already causing acute problems to the environment, society, and the economy. Likewise, there is general consensus both in the government and the public that the global climate change crisis is imminent and that China is already suffering from the effects of climate change, as exemplified by the increased frequency of extreme weather conditions and events such as prolonged droughts and flooding during the past few years. Although there are skeptics, as in other countries, it is also widely accepted in China that global warming will continue and in fact become more acute in the long run.

SOURCES OF PRESENT AND FUTURE CHALLENGES

The great efforts made by the government to reduce emissions and to improve environmental quality are partly offset by China's fast economic growth and urbanization and the consequent rise in consumption. More challenges lie ahead on the environmental front. Given the country's varied climatic, physical, ecological, cultural, and economic conditions, there is no "typical China."

As in many other countries, the key drivers of the local and global environmental conditions are the availability of resources, high economic growth, and social development. For China, of particular concern is the very limited amount of resources: For example, per capita freshwater resources in China are only one-quarter of the world average. Meanwhile, the per capita arable land is 40 percent of the world average. Furthermore, the limited resources are unevenly distributed. Water resources, for example, are not available where they are most

needed: 80 percent are in the Yangtze Delta (southeast China), where only 40 percent of China's total cultivated land is located. In contrast, only 12 percent of water resources are in the northwest, which has 45 percent of China's total cultivated land.[13] At the same time, inefficient resource usage across all sectors of the Chinese economy has been targeted as a key problem area. Although a lot of progress has been made, there remains much room for improvement.

Another major concern is the rapid growth of consumption and the general trend toward a consumer-driven economy. The number of vehicles in some of the major cities in China, for example, is growing at an annual rate of 30 percent, which has resulted not only in traffic congestion but also pollutant emissions and other greenhouse gases. The level and patterns of consumption are important driving forces that will determine the environmental trajectory of China and indeed the world in the coming years. Notwithstanding China's commitment to reducing its carbon dioxide intensity, the total emission of greenhouse gases is projected to continue to rise in the near future along with the income and consumption of Chinese citizens. In addition to these concerns, poverty alleviation in China is still a major socioeconomic challenge, as 26.9 million Chinese in rural areas still lived in poverty in 2010 (the number jumps to 128 million if the newly introduced poverty line of less than $1 per day is used). The cost of pollution has fallen disproportionately on the shoulders of the poor and on less powerful groups.

> If China is to ensure continued economic growth at a lower level of environmental and social costs, a concrete, large-scale strategy needs to be adopted quickly.

If China is to meet these challenges and ensure continued economic growth at a lower level of environmental and social costs, a concrete, large-scale strategy needs to be adopted quickly. There is a particularly acute need for China's energy sector to make a transition toward low-carbon and renewable sources. Doing so would enable China to better tackle multifaceted challenges: national security, economic competitiveness, energy access for all, and commitment to address global climate change.

CHINA'S ENVIRONMENTAL STRATEGIES AND POLICIES

Realizing that its economy and society would not be sustainable if the current use of natural and environmental resources were to persist unbridled, China in recent years began to focus on improving its economic efficiency, restructuring its economy, and changing the long-term economic growth path. President Hu Jintao and Premier Wen Jiabao have sent political signals on numerous occasions since 2010 that China will not pursue economic growth at the expense of its ecosystem and human health and that China can and will find

a way to create a sustainable developed economy, a wealthy and harmonious society, and an eco-friendly civilization.

China has developed comprehensive regulatory and policy frameworks to deal with environmental issues. The Ministry of Environmental Protection and National Development and Reform Commission are the key authorities responsible for developing strategies and policies for domestic environmental and climate change issues. In addition, the National Environmental Protection and Resources Conservation Commission under the National People's Congress is responsible for formulating laws and regulations regarding resource conservation and environmental protection.

In addition to specific legislation, regulatory systems, and policy developments, the government has devoted considerable effort to promoting political messages to the public regarding national strategic thinking on the environment and on the development of environmental campaigns both in the private and public sectors. In 1992, for example, the concept of sustainable development was introduced as one of the national development strategies. Since then, other environmentally motivated concepts and ideas have been strongly underscored and disseminated by the government, including "cleaner production," "circular economy," "scientific development," "green GDP," "harmonious society," "resource conservation," "environmentally friendly society," "low carbon and green economy," and so on. Although one may argue that these are "soft" approaches to the underlying problems and that they lack binding mechanisms, the fact remains that they reflect high-level policy thinking and the political commitment of the Chinese government to balance environmental protection, global climate change, and economic development.

Furthermore, China has developed a set of national "hard" targets to implement those strategies. When China developed its Eleventh Five Year Plan (2006–2010), for instance, it placed environmental and resource constraints on economic growth for the first time. Specifically, it promulgated that annual economic growth of 7 percent could be achieved only after improving energy efficiency by 20 percent and reducing total pollutant emissions (sulfur dioxide, chemical oxygen demand) by 10 percent between 2005 and 2010. In 2009, in the context of international talks to combat climate change, China announced its target to further reduce carbon dioxide emissions per unit of GDP by 40 percent to 45 percent by 2020 from their 2005 levels (the intensity target). Such efforts are scheduled to continue during the Twelfth Five Year Plan (2011–2015).

CHINA'S PERCEPTION OF GLOBAL ENVIRONMENTAL CHALLENGES AND GOVERNANCE

Unlike in many other countries, there are generally strong beliefs in China's scientific community and the public writ large that climate change is real and is already causing huge problems to the environment, society, and economy.

In order to address such problems, on May 30, 2007, the State Council of China approved China's National Climate Change Program. The 62-page action plan details the policies and measures China will take to mitigate the effects of, and adapt to, climate change. Several important policies and action plans have been published since then. Such government actions show the strong political commitment to responding to global climate change. They also imply that China has made global climate change a top priority in its overall environmental and development objectives.

China has been actively involved in the global climate change talks since the 2009 UN conference in Copenhagen. China's official statement after those talks was affirmative and focused more on the constructive side of the Copenhagen Accord. China believes that it reflected the political willingness of all parties to address climate change, that it strongly reconfirmed the principle of "common but differentiated responsibilities," and that it followed the mandate of the Bali Action Plan established in 2007, with the two tracks under the UN Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol as the foundation for next rounds of negotiation. Meanwhile, China also highly touted the Copenhagen Accord for achieving some consensus among the parties and for clarifying the direction for future negotiations.

As for the UN Climate Change Conference in Durban in 2011, China's position was more focused on the balanced outcomes, including the establishment of an ad hoc working group on the Durban Platform for Enhanced Action process for a new global deal, the second commitment period under the Kyoto Protocol, and the operation of the Green Climate Fund. Generally speaking, China believes that the Durban outcomes are acceptable but not sufficiently satisfying, meaning that China could join the new deal in 2020 when its conditions are satisfied. To China, the disappointing aspect of the Durban negotiation was that the outcomes succeeded only in avoiding the abandonment of Kyoto. The goals of the second Kyoto Protocol commitment period are less than ambitious; more countries are withdrawing, and those staying within the framework are merely sticking to their previous commitments in the original protocol.

> **The scale and intensity of China's environmental problems overall are arguably greater than in any country in the world.**

China recognizes the huge imbalance and inequity of historical emissions, and it is a core focus of China's negotiation strategy. As for the approaches to balance and fairness, China strongly insists that the international climate negotiation, the outcome of the Durban process, or any new global climate deal fully reflect the historical responsibility of developed countries for climate change and the real needs of developing countries for sustainable development. Such demands have already been endorsed by the UNFCCC, the commonly accepted platform and the international law to address climate change.

China strongly insists that the UNFCCC and its Kyoto Protocol are the legal basis and fundamental framework for international cooperation to address climate change in any

future global climate deal. The newly established Durban process is expected to develop a protocol, another legal instrument, or an agreed-upon outcome with legal force under the UN Framework Convention on Climate Change, to be applicable to all countries that are parties to the agreement. China expects this to be conducted under the convention and in full accordance with all its principles and provisions, in particular the principles of equity and common but differentiated responsibilities, and its outcome to form an integrated part of the convention.

China insists that Kyoto 2.0 is necessary, in which developed countries adopt more aggressive emission reduction commitments, while developing countries implement nationally appropriate mitigation actions, as required by the Bali Action Plan. China believes that such an arrangement is a good way to balance the historical emission inequity and the urgent need to deal with climate change. As a result, China and other developing countries worked together in Durban to prolong the life of the Kyoto Protocol beyond 2012. They are also working together to develop a strong and legally binding Kyoto 2.0 that covers a period up to 2020. For the next step, China conditionally committed to accept a new global climate deal applicable to all parties after 2020.

In the next phase of the negotiation process, China may become more active in providing its own proposals for a new global climate deal, particularly in sharing its views on the Durban process and any related issues. Some concrete proposals are being advanced by leading advisers on how China can contribute to a new global deal, particularly when China is ready to shoulder some emission reduction targets. Almost all of these proposals are utilizing the equity principle based on "historical per capita emission." If the developed countries are willing to shoulder their responsibilities for their share of historical emissions, China, too, would be morally constrained to directly face its future emissions and try harder to carry out domestic policies for industrial restructuring and upgrade.

China supports an enforcement mechanism that is managed by an international legal authority or at least guided by meaningful rules to ensure compliance. This stance was also reflected in the statement issued by ministers of China, India, Brazil, and South Africa in July 2012, in which the major emerging economies urged a common accounting rule for actions taken by developed countries.

It is not surprising that China's core interests are related to the principle of common but differentiated responsibilities, that is, how the historical responsibilities are treated, and how future emissions will be treated (for example, the absence of emission caps at least until 2020 with a preferred date of 2025 or even 2030). It is likely that in the near future other less-developed countries will be asking for a principle similar to what today's emerging economies such as China are seeking.

Although arguments and negotiations will continue, and there is no clear answer as to whether China would sign an international environmental treaty with a high degree of formal obligation. China is open to and welcomes any form of platform for communication, discussion, and debate, whether it be bilateral, regional, or multilateral. China understands

the essence of climate change and believes that international cooperation is indispensable to addressing such a global challenge for global commons. That is why China supports addressing the problem mainly through the multilateral legal platform of the existing UN framework convention. China's expression of interests for joining a post-2020 global deal further reflects the country's position on international agreement. In the meantime, China is constantly calling for developed countries to demonstrate the political will to increase their environmental ambitions under Kyoto and the UNFCC by explicitly enunciating their national obligations to address climate change concerns.

BALANCING ECONOMIC GROWTH AND ENVIRONMENTAL HEALTH[14]

Given China's demand for social and economic development alongside environmental protection, as well as global calls to combat climate change, the country faces five key challenges.

First, China must determine how to improve energy efficiency and restructure energy supply and demand to achieve the following targets: Reduce greenhouse gas emissions per unit of GDP by 40 percent to 45 percent by 2020 from 2005 levels and increase the share of non-fossil energy to 15 percent of energy consumption by 2020. China is still in the process of rapid industrialization; energy is the engine that drives the economy. Current development is heavily reliant on coal, both for industry and electricity generation, and this is not expected to change much in the coming decades. The fact that the marginal cost of energy efficiency improvements will increase and that the relative cost of renewables compared with fossil fuel sources remains very high will impose even more difficulties in the future.

The second issue is how to prevent the possible trend of pollution transfer due to uneven development, especially from developed regions to undeveloped regions, from urban to rural and from rich to poor, and how to balance poverty alleviation with environmental protection. There are essentially two types of poverty in China. First, there are those who live in very poor geographical and geological areas and suffer from absolute poverty. For them, external intervention and assistance are needed. Second, there are those who live in sound, resource-rich but ecologically sensitive areas. Due to poor social and market conditions, their living standards cannot improve without damaging the ecosystem. In short, they suffer from what can be called "green poverty." Without specific mechanisms such as a regional ecological compensation system or an ecological service payment scheme based on the principle of common but differential responsibilities, these poor but environmentally sensitive regions may follow the same "growth by polluting" path that has been pursued elsewhere, which would offset environmental gains in other regions.

Third, China must gain control of incremental increases in pollution while cleaning up the accumulated pollution. Pollution accumulated in the environment during thirty years

of breakneck development in China will increase the risk to human health and well-being. This implies a possible future need for huge public expenditures and compensation funds. A great effort funded by public money will be needed to clean up and control existing pollution, while at the same time there will be an urgent need to respond to health risks and lost income due to pollution in the name of serving environmental justice.

Fourth, China must develop an integrated response to global, regional, and local environmental challenges. Climate change is both a global environmental issue and a developmental issue. As discussed above, China is the biggest emitter of greenhouse gases. It must also urgently alleviate the poverty experienced by its massive population in order to address severe local environmental issues. Separation of the issues will affect the sustainable future development of China and will also have a negative impact on the rest of the world.

The fifth and final challenge is striking a balance between the demand for higher standards of living and the need to control pollution. The daily life of increasingly affluent Chinese consumers has already become a major source of pollution, albeit still low in per capita terms by the standards of developed countries. It is important for China to implement policies that can precipitate consumption patterns that are both environmentally responsible and climate-change–friendly before it is too late.

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ENVIRONMENTAL ISSUES

LIGIA NORONHA

INDIA'S DOMESTIC ENVIRONMENTAL CHALLENGES

The environmental question is at the crossroads of the growth debate in India. The official position is that continued rapid economic growth is deemed essential to eradicating persistent large-scale poverty. At the same time, however, the nature of growth that is underway has a heavy impact on the environment. The official stand goes back to Indira Gandhi's seminal speech at the United Nations Conference on the Human Environment in June 1972, where she posed the question: "Are not poverty and need the greatest polluters?"[1] Given the large share of India's population below the poverty line, the number of children still malnourished today, the 40 percent with no access to electricity, and the more than 85 percent of rural households dependent on firewood, chips, and cow dung as a primary source of fuel for cooking, the country's development imperative cannot be, and is not, understated. So GDP growth, along with increased infrastructure and consumption of goods and services, is seen as key to job creation, health improvements, and reduced poverty.

While poverty continues to be a major concern in India, some things have changed since 1972. The country has become less poor on the aggregate, and income and consumption inequalities have risen. The middle, rich, and super-rich classes have grown, as has their consumption with implications for the environment. More cars, more housing, greater travel, smartphones, LCD monitors, shopping malls, greater intake of meat and meat products, and other trappings of a globalized consumption pattern are increasingly evident. The key

issue, as many observers now see them, is the tension between the continued ascendancy of the growth imperative and the expansion of environmentally destructive growth, more consumerist lifestyles, increased corporate reach, and the commodification of key basic resources. While the idea that the environment cannot be improved in conditions of poverty is still dominant, the perception of environmental challenges is beginning to change with changes in conditions of poverty and wealth.

Most scholars and policymakers in India place challenges to local environmental quality (air, water, land) at the highest significance, followed by threats to natural resources (forests, wildlife), and finally global environmental problems (climate change, biodiversity, ozone). Long-run trends are perceived to make these challenges more difficult. For example, numerous development trends that are on the rise—highways, hydropower projects, power and telecom lines, mining, large-scale agriculture, plantations, wind energy farms, and urbanization—threaten biodiversity-rich regions such as the Western Ghats and coastal ecosystems. In rural areas, indoor air pollution due to the use of dirty fuels and the absence of clean water and sanitation stress the health and well-being of women and children, due to their greater exposure to indoor fumes. In most urban areas, monitoring studies show that levels of suspended particulate matter are considerably higher than the acceptable level as per the National Ambient Air Quality Standards. Transport is a significant and growing source of air pollution in cities; vehicles and construction

> While the idea that the environment cannot be improved in conditions of poverty is still dominant, the perception of environmental challenges is beginning to change with changes in conditions of poverty and wealth.

activities are sources of noise pollution; waste management is poor due to low compliance with storage, segregation, and collection laws; waste processing and setting up of landfills is dismal. There is also growing electronic waste. Water is expected to be the next big resource crisis. Due to poor quality and declining availability of surface and groundwater, availability is inexorably approaching scarcity benchmarks and wastewater treatment is limited. For example, more than 70 percent of wastewater in India's Class I and II cities remains untreated.[2] Conservative estimates by the Energy and Resources Institute in 2010 suggest that environmental degradation takes a toll of about 4 percent of India's GDP (morbidity due to unclean air and water, productivity loss due to degraded land and forests) and more than 800,000 premature deaths (due to air and water pollution).[3] In 2011, the cost of environmental damage from resource-intensive manufacturing was estimated at $32 billion.[4] But the links among environmental quality, material use, public health, and quality of life are still not well understood in India, giving rise to a debate built around contestation and conflict rather than one focusing on the quality of growth.

INDIA'S ENVIRONMENTAL STRATEGY AND POLICIES

Views on strategic objectives with regard to preserving the environment stretch from those who see it as very much linked to growth objectives, for example, as: "conservation of the natural resource base through decreased material intensity of production, enhancing access of the poor to natural resources on which their livelihoods depend, enhanced energy security, and addressing pollution from diverse sources"[5]—that is, green growth strategies, to those who believe that there are no strategic objectives at all with regard to the environment. They hold that if there are any responses to environmental concerns, these are "idiosyncratic, driven by an NGO campaign here and a crusading minister there."[6] The establishment of the Western Ghats Ecology Experts Panel by the Ministry of Environment and Forests in 2010 in response to calls by civil society is one such example of strategic action to take stock of the state of the environment in this biodiversity hot spot and seek ways to protect it. It was an important step in seeking to rebalance growth and environmental objectives. The report of the panel, though submitted in August 2011, was kept out of the public domain until the end of May 2012, because the ministry was of the view that the disclosure of the report at this stage would prejudicially affect the economic interests of India[7] as it recommended that some environmentally degrading development activities, such as mining and large hydropower and coal thermal power plants, not be allowed in the most ecologically sensitive areas of the Western Ghats. It is evident that the political class and the bureaucracy itself increasingly see the environment as a secondary objective to growth, in fact as a threat to growth. Still, civil society is making growing demands to moderate or alter the strategies and quality of growth to accommodate environmental concerns.

With the growth story becoming somewhat shaky in recent months, we will perhaps see the former trumping the latter in public debates, to the further detriment of the environment. A more strategic approach would be to recognize the importance of environmental stewardship for an improved quality of life and long-term growth potential. The Twelfth Five Plan approach documents do suggest that this may indeed be the case.[8] The Working Group on Effectively Integrating Industrial Growth and Environmental Sustainability advocates that India should aim to achieve what it called rapid ecologically sustainable industrial growth. This, it argues, would require a transformation by manufacturing companies toward green manufacturing and the adoption of environmental sustainability practices.

India has extensive and robust command and control measures to address environmental concerns. Enforcement in India to date, however, has been poor. The use of market-based regulations to penalize and incentivize are seen as ways to address some of the causes of this regulatory deficit. Use of such instruments to control pollution in India, however, has been limited generally to subsidies for pollution control equipment and rebates on water cess. More recently, innovations such as tradable renewable energy certificates, the Perform, Achieve and Trade scheme, and energy-efficiency certificates have been introduced to create markets for clean energy, reward performance, and incentivize energy change toward

reduced fossil fuel use. A coal tax of INR 50 per metric tonne, whether the coal is produced in India or imported, has been levied with a view not to reduce coal use but to create a fund to support renewable energy. A number of fiscally supported programs, mostly centrally sponsored, exist, as do programs to increase public awareness. In 2009, the Thirteenth Finance Commission provided strategic grants to incentivize states to improve environmental performance for forest conservation; for generation of grid electricity from renewable sources; and for establishment of an independent regulatory mechanism for the water sector and improved maintenance of irrigation networks as part of its recommendations to "manage ecology, environment and climate change consistent with sustainable development."[9]

INDIA'S PERCEPTION OF GLOBAL ENVIRONMENTAL CHALLENGES AND GOVERNANCE

Officials' and scholars' perceptions of collective challenges to the global environment range from those who see "the key challenge to protection of the global environment arising from attempts by developed countries to appropriate a disproportionate share of global environmental resources,"[10] to those who recognize that "there is considerable suspicion of global environmental challenges, particularly when wrapped in a one-worldism rhetoric as this is interpreted as [a] means to advance competitiveness under the garb of environmentalism."[11] The perception is that the challenges to the global environment are largely due to the excess and unsustainable consumption and lifestyles—of the developed world, and also of the affluent in India. Long-term trends are seen as aggravating these challenges.

The public in India is aware of global environmental problems. A 2012 online Energy and Resources Institute survey in two states, Delhi and Karnataka, for example, indicates that 80 percent of the respondents are aware of such global environmental challenges as climate change and ozone layer depletion. However, the public attitude toward global issues is marginal. That arises perhaps from the fact that India has far too many local concerns to worry about playing a more proactive role in contributing to global public goods such as carbon mitigation or bothering too much with global environmental problems, to which Indians have contributed relatively little and can do little about.

Of the global issues, climate change is the one that people are most aware of. However, the concern is more related to the impacts of climate change and the potential vulnerability of different parts of the country to climate risks. Given India's low per capita contributions relative to other major economies, most people in India have not seen this as a key concern. But this perception domestically is beginning to change as the very rich in India have energy use patterns similar to those in the developed world. New "fault lines" are developing similar to those around the larger debates over development. Some of these spill over to the issue of luxury emissions from India. As Chakravarty and Ramana put it, "if present patterns of

energy consumption inequalities continue, then 'Hiding behind the Poor' might become a reality."[12] However, it would be unfair, and even wrong, to assume that India is not aware of its future responsibilities; there is, in fact, a concerted action to use clean energy and reduce fossil fuel use, although the primary driver is to reduce energy dependence on imported fossil fuels rather than to address the climate conundrum. Given that such a strategy also reduces emissions, it is seen as a co-benefit. The case for advancing such co-benefits to center stage in India's climate strategy is growing.

Global negotiations among all states are perceived as the way to address critical challenges facing the global environment. In general, the perception is that a global problem requires a global solution, developed through existing international institutions (such as the United Nations) that adhere to principles of equity and justice. The principles would be more important than the specific institutional mechanism. India has been very active in all the international forums relating to environmental protection and has signed almost all the multilateral agreements relating to the environment: more than 500 active agreements and memorandums of understanding, ten global agreements on nature conservation, five dealing with hazardous material, four relating to atmospheric emissions, and one relating to the marine environment.[13]

Despite this very obvious global engagement, another imperative linked with climate change lurks in the wings. And while the rhetoric here is about global negotiations among all states in order to reach an equitable burden-sharing agreement, given that this outcome is politically unlikely, some observers believe that independent national solutions will be the way forward. Indeed, actions at the UN Climate Change Conference in Copenhagen (2009) and Cancun (2010) seemed to veer around national solutions. This changed again after Durban (2011), and the national stand has shifted back again to support multilateral processes, guided by principles of the UN Framework Convention on Climate Change. The official position on this is that there was no change in stand, only in points of focus. Thus Copenhagen was about advancing voluntary efforts by indicating domestic mitigation goals and transparency arrangements, while Cancun merely formalized this. Durban was about launching a process for arrangements post-2020.[14]

With regard to international environmental governance, India believes there is a case for working with existing institutions of international environmental governance, and improving their efficiency and effectiveness. In case of the UN Environment Program (UNEP), India's view is not to transform it into some supranational organization, but to support the augmentation of its financial resources and strengthening its programmatic mandate as an implementing agency. UNEP's role, India argues, has to be strengthened in terms of capacity building, science-policy interface, technical support, and knowledge management to facilitate country-level initiatives.[15] In general, there is not much appetite in India for supranational institutions. As Shyam Saran, the former secretary of the Ministry of External Affairs and the prime minister's special envoy on climate change, puts it, "The global dimension is a bigger challenge, because governance needs to be exercised without a global govern-

ment. In the latter case, recent experience indicates that formal institutions and regimes, such as the United Nations and its specialized agencies, have become less important, while informal principles and practices as well as institutions are playing a more influential role in the setting of norms and standards. The G20 summit is an example. Mapping this entire complex of formal and informal global regimes and monitoring their evolution in response to a rapidly changing international environment have become urgent necessities."[16]

Whether or not international environmental agreements having a high degree of formal obligation will be acceptable to Indian policymakers is not clear. With sovereignty being an overriding concern in India, some believe that such arrangements will not be welcome. However, there is another view that India may be open to such agreements provided they are based on widely accepted principles of equity. In the run-up to the 2012 Rio+20 negotiations on an institutional framework on sustainable development, India supported a distributed governance. India believes that the UN system has all the institutions required to promote sustainable development; what is missing is effective coordination and cooperation. The principles of subsidiarity and bottom-up decisionmaking are emerging as important, as is the need to create mechanisms for the mainstreaming of sustainable development concerns in sectoral policies, greater coherence among ministries, support for education for sustainable development, a role for civil society in taking the process to the grassroots level, and strengthening the capacities of local governments.

The question of delegation to external authority, however, is seen to be extremely problematic, owing to the need to ensure equity in governance of such authority. India does not perceive a need for some sort of external authority to enforce state compliance. In fact, the general view is that India complies not only with all the international agreements that it is party to, but also with agreements such as the Non-Proliferation Treaty that it is not party to.

BALANCING ECONOMIC GROWTH AND ENVIRONMENTAL HEALTH

Many in India perceive the existence of "two cultures" in the challenge of the balance.[17] Both sets of groups—those supportive of growth and those for the environment—say they recognize each other's positions and speak of the need for "balance." However, it is interesting that neither side wishes to engage with the implications of the trade-offs involved between growth and environment, and hence while in theory they speak of balance, this is not always achieved. Many in India would, however, disagree with this framing of the issue as one involving trade-offs. As India's minister of rural development, Jairam Ramesh, put it, "environmental quality need not (and should not) be seen as in conflict with economic growth."[18] My own view is that while there may be cases when the environment is considered, not enough debate and reflection are occurring on the distributional and health consequences of current development choices. A closer look suggests that there is still a clear

development bias toward the present and near term; development choices benefit the few while not sufficiently—very often not at all—engaging with the rights of and impacts on marginal groups and communities affected by these choices (extractive industries, such as mining, oil and gas; hydroelectric projects; and special economic zones, to name but a few). Perhaps we need to revisit the speech of Mrs. Gandhi, in which she also says, "We should reorder our priorities and move away from the … model which seems to have given a higher place to things rather than to persons and which has increased our wants rather than our enjoyment."[19]

India's domestic policies toward improving the environment took off after the Bhopal gas tragedy in 1984. A greater impetus took place after the 1992 Earth Summit. In the 1990s, many new environmental laws and regulations were enacted. Policies were designed as per the agreements to address the challenges. In 2002, India reaffirmed its commitment to sustainable development at the World Summit on Sustainable Development at Johannesburg. The country adopted a National Environment Policy in 2006 to ensure that economic growth proceeds in an environmentally responsible manner. Despite these efforts, improving the environment has not always been smooth sailing, and poor enforcement has led to several serious clashes on the ground. As Jairam Ramesh put it when he was the environment minister, "Industry has assumed that somehow these laws can be 'managed,' and governments, too, have not insisted that the laws be implemented both in letter and spirit."

With regard to the balancing of economic growth with global environmental health, many of the national policies and regulations (such as the National Environment Policy, forest conservation act, biodiversity act, and ozone regulations), regulatory arrangements around clean energy, and publicly funded programs such as the National Solar Mission and nuclear programs seek to address development imperatives while taking into account global environment concerns. But there is also an underlying view that India cannot moderate its growth for the sake of global environmental concerns; rather, the view is that it is India's turn to grow and it is the duty of the world to create ecological space for that growth. As one commentator puts it: "to moderate growth for global harms would be to sanction squatters' rights by the north."

EQUITABLE GLOBAL OUTCOME FOR ANY FUTURE INTERNATIONAL AGREEMENT

India's perception of an equitable outcome from any future international agreement on climate change can best be summed up as one that has to have three features: the carbon space must be shared equally by all people; adverse impacts of climate change must be compensated (that is, resources provided for adaptation) by countries that have caused the

problems; and poor countries must be enabled to develop under a global regime of carbon limitation by countries that have become rich through their past emissions.[20]

India does not see the historically inequitable contributions of individual states to climate change and the immediate challenges faced by the international community as issues that can be separated from one another. The view in India is that it is necessary to address the former as an equitable way to deal with the latter. Allocations of carbon space to countries must reflect their respective historical emissions from the start of the Industrial Revolution. The tiered system under the Kyoto Protocol is perceived as appropriate, given that historic responsibility is the basis for this. The blip on this common but differentiated responsibility posture was witnessed in India's stand at the climate change conference in Copenhagen in 2009, which evoked mixed feelings in India.[21] While Ramesh was reportedly happy with the outcome and is quoted in the *Financial Times* as saying, "My mandate was to protect India's right to development … India's right to faster economic growth," Prime Minister Manmohan Singh, speaking the following month, said nations "made limited progress" at Copenhagen and that "no one was satisfied with the outcome."

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The politics of negotiations and the ingrained belief in historical responsibility for the problem of climate change, followed by an absence by parts of the developed world, such as North America, in seriously addressing the need to reduce its own carbon emissions, has kept most of the climate change debate in India in the foreign policy realm and centered on climate negotiations.[22] As climate change impacts are beginning to be perceived and the realization is emerging that India needs to start mainstreaming climate concerns into development for the sake of its own people, attention to an integration of the global and national policy arenas is increasing. This is beginning in the context of the energy sector. Reducing fossil fuel use to decrease import dependence and the energy security implications involves measures and actions that in fact have positive carbon mitigation implications.[23] The focus as of now has been to make this a domestic policy agenda. An emerging view is that India could, in the future, agree to such co-benefits based on actions in international negotiations—actions that shift development paths in low-carbon directions, provided these are defined internally.[24] But there is as yet no consensus on this in India. The other end of the spectrum is that India would consider any reasonable climate change treaty, so long as it is equitable, and does not seek another century of a world divided into rich and poor.

Given the dire conditions that climate change threatens, India sees development as its own safety net, its best adaptive and coping option. This belief is reinforced because it perceives that being rich and developed makes these parts of the world indifferent to respon-

sibly and urgently addressing this impending catastrophe. The United States walked away from addressing a global problem by not becoming a party to the Kyoto Protocol. It also set an example for high per capita emitter countries; Australia was not party to the protocol until 2007, and Canada signed on to the protocol but did little toward meeting its obligations and formally abandoned the protocol in 2011. While the developing world's repeating the behavior of the developed world is indeed a recipe for mutually assured destruction, a culture of responsibility is key to improved positions.

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NOTES

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