

THE FUTURE OF SOUTH ASIAN SECURITY

Prospects for a Nontraditional Regional Security Architecture

By Mahin Karim



THE NATIONAL BUREAU *of* ASIAN RESEARCH

The National Bureau of Asian Research is a nonprofit, nonpartisan research institution dedicated to informing and strengthening policy. NBR conducts advanced independent research on strategic, political, economic, globalization, health, and energy issues affecting U.S. relations with Asia. Drawing upon an extensive network of the world's leading specialists and leveraging the latest technology, NBR bridges the academic, business, and policy arenas. The institution disseminates its research through briefings, publications, conferences, Congressional testimony, and email forums, and by collaborating with leading institutions worldwide. NBR also provides exceptional internship opportunities to graduate and undergraduate students for the purpose of attracting and training the next generation of Asia specialists. NBR was started in 1989 with a major grant from the Henry M. Jackson Foundation.

Funding for NBR's research and publications comes from foundations, corporations, individuals, the U.S. government, and from NBR itself. NBR does not conduct proprietary or classified research. The organization undertakes contract work for government and private-sector organizations only when NBR can maintain the right to publish findings from such work.

This report may be reproduced for personal use. Otherwise, it may not be reproduced in full without the written permission of NBR. When information from NBR publications is cited or quoted, please cite the author and The National Bureau of Asian Research.

NBR is a tax-exempt, nonprofit corporation under I.R.C. Sec. 501(c)(3), qualified to receive tax-exempt contributions.

© 2013 by The National Bureau of Asian Research.

Printed in the United States of America.

For further information about NBR, contact:

The National Bureau of Asian Research
1414 NE 42nd Street, Suite 300
Seattle, Washington 98105

206-632-7370 Phone
206-632-7487 Fax
nbr@nbr.org E-mail
<http://www.nbr.org>

THE FUTURE OF SOUTH ASIAN SECURITY

Prospects for a Nontraditional Regional Security Architecture

— TABLE OF CONTENTS —

- 1 The Future of South Asian Security:
Prospects for a Nontraditional Regional Security Architecture
Mahin Karim
- 11 Appendix A: Project Team
- 13 Appendix B: Executive Summaries of Project Publications
- 25 Appendix C: SAREESA Scenario Narrative
An Architecture of Cooperative Mechanisms for Addressing Nontraditional
Security Challenges: South Asia 2025
Tariq Karim

THE NATIONAL BUREAU *of* ASIAN RESEARCH

NBR PROJECT REPORT | APRIL 2013

The Future of South Asian Security: Prospects for a Nontraditional Regional Security Architecture

Mahin Karim

MAHIN KARIM is a Senior Associate for Political and Security Affairs at The National Bureau of Asian Research. She can be reached at <mkarim@nbr.org>.

There is a growing awareness—and an increasing sense of urgency—in South Asia that the dire forecast for the region’s nontraditional security environment will inevitably have a spillover effect in traditional security areas. At the same time, there is optimism in South Asian policy corridors that if these nontraditional challenges begin to be effectively addressed today, before they have a chance to evolve into the “hot button” traditional security threats of tomorrow, they may inspire solutions and innovative pathways for tackling some of the region’s long-standing traditional security problems.

This report offers key findings and insights from a project by the National Bureau of Asian Research (NBR) exploring a “Nontraditional Regional Security Architecture for South Asia,” which was funded by the John D. and Catherine T. MacArthur Foundation’s Asia Security Initiative.¹ The three-year project (2009–12) examined potential scenarios for South Asia’s nontraditional security challenges in 2025 and explored opportunities to begin building a viable regional security architecture through cooperation on shared nontraditional security concerns. Throughout the course of the initiative, NBR organized three regional workshops for the project team²—in Dhaka, Colombo, and New Delhi, respectively—each of which included participation from senior policymakers and analysts with access to and the ability to inform South Asian policymakers at both a national and regional level. This unique access enabled NBR to filter project findings through both formal and informal channels to a broad policy audience in the region. NBR also organized a final public briefing on project findings in Washington, D.C., for a U.S. policy audience, while widely disseminating project research through the NBR Special Report series.³

Looming Nontraditional Security Threats

The primary goal of this project was to explore opportunities in the near term for regional cooperation on nontraditional security challenges in South Asia, with the hope that such cooperation might yield dividends in the long term toward resolving the region’s persistent traditional security problems. Progress in addressing South Asia’s traditional security challenges has historically been hampered by the conflicting domestic and foreign policy priorities of countries in the region. The South Asian Association for Regional Cooperation (SAARC)—the region’s current vehicle for state-to-state cooperation—is largely ineffectual and is often held hostage by political tensions between its member states.

In recent years, the human impact of food and water crises, natural and environmental disasters, and pandemic diseases that cut across geographic boundaries has awakened South Asia’s leaders to the seriousness of these “soft” nontraditional security challenges. As countries in the region have witnessed, the higher incidence of calamities in these areas can have political consequences, if not adequately addressed, and exacerbate conditions contributing to more traditional “hard” security threats.

¹ Further information about this project, and its related workshops and publications, can be found at <http://nbr.org/research/initiative.aspx?id=b4eac81-b929-4b48-95bc-0c2e9c7c8cbe>.

² Please see **Appendix A** for a complete list of the project team members.

³ The executive summaries of all the essays published in these NBR Special Reports can be found in **Appendix B**. The reports were published as Dennis Pirages, Farooq Sobhan, Stacy D. VanDeveer, and Li Li, “Ecological and Nontraditional Security Challenges in South Asia,” NBR Special Report, June 2011; Ali Tauqeer Sheikh, “Nontraditional Security Threats in Pakistan,” NBR Special Report, October 2011; Mallika Joseph and P.G. Dhar Chakrabarti, “Nontraditional Security Challenges in India: Human Security and Disaster Management,” NBR Special Report, November 2011; Sridhar K. Khatri and Bishnu Raj Upreti, “Nontraditional Security Challenges in Nepal,” NBR Special Report, January 2012; and Amal Jayawardane and Abbas Bhuiya, “Health Security Challenges in Sri Lanka and Bangladesh,” NBR Special Report, February 2012.

In the past decade, South Asia has been forced to deal with a series of ever more devastating natural and environmental disasters. If predictions regarding shifting tectonic plates and climate change bear true, the region should anticipate many more such incidents in the future, possibly with increasing intensity. The evidence of glacial recession in the Himalayas has potentially serious consequences for the critical river systems that traverse the South Asian region, including those in Nepal, India, and Bangladesh, as well as in China. Predictions that a slight increase in air temperatures could decrease rice yields in China by 5%–12% and net cereal production in South Asian countries by 4%–10% by the end of the century suggest alarming implications for water and food security in a region comprising more than one-fifth of the world's population.⁴ Food insecurity has already proved to be a source of social and political unrest in the region, as exemplified by the 2008 riots in countries such as Bangladesh to protest rising food prices.

Further, according to the Intergovernmental Panel on Climate Change (IPCC), a rise in sea levels would have devastating consequences in low-lying areas of South, Southeast, and East Asia, rendering millions of people homeless in countries such as Bangladesh, India, and China. The region has already proved vulnerable to natural disasters over the last decade. In 2004, India and Sri Lanka were devastated by tsunamis triggered by an undersea earthquake in the Indian Ocean, while in 2005 the South Asian earthquake severely affected politically vulnerable regions in Pakistan, India, and Afghanistan. In 2007, Cyclone Sidr caused one of the worst natural disasters in Bangladesh since the cyclone in 1991. Likewise, in 2010, Pakistan was devastated by some of the worst floods in its history and has continued to experience heavy flooding in subsequent years due to unusually powerful monsoons.

The porous borders between South Asian states not only pose a traditional threat vis-à-vis transnational terrorism and criminal activity but also heighten the risk of a pandemic outbreak spreading from any one of the countries in the region. Bangladesh and Pakistan have experienced outbreaks of avian influenza in recent years, while India has one of the world's largest populations of people infected with HIV/AIDS. Movement across borders, whether driven by internal conflict or natural calamities, exacerbates the risk to the entire region's health security. The potential effects of disasters on South Asia's interconnected countries call for a concerted joint effort to alleviate the human impact and, thereby, the risk to regional security and stability. At the same time, the fact that these are mostly natural rather than man-made—whether caused by shifting geological plates, changing climatic patterns, or other phenomena in nature—may render them more accessible challenges for the region's leaders to tackle cooperatively, without being hampered by the historical baggage of regional politics and traditional security conflicts.

An Alternative Framework for Cooperation

Focusing on three primary areas of nontraditional security challenges confronting South Asia today—food and water security, environmental security and disaster management, and health and human security—the project applied a futures methodology in a series of workshop discussions aimed at creating and encouraging a space for project participants to engage in innovative thinking exercises. The objective of these exercises was to break away from the traditional “silos” of

⁴ M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden, and C.E. Hanson, eds., *Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge: Cambridge University Press, 2007), 10.4.1, http://www.ipcc.ch/publications_and_data/ar4/wg2/en/ch10s10-4-1.html.

thinking that often constrain policymakers and, by deconstructing some of the assumptions and preconceptions that inform those silos, arrive at alternative approaches to addressing critical issues confronting South Asian policymakers. The project and its applied methodology offered a unique space for participants to explore alternatives to traditional security cooperation efforts and examine collaboration on nontraditional security as one plausible pathway toward developing a more stable security architecture for South Asia.

It should be emphasized that this scenario-analysis approach does not attempt to predict or forecast the future. Rather, such analysis considers multiple, equally plausible futures based on different assumptions about the forces driving outcomes, taking into account a variety of different uncertainties. Ultimately, the goal of this applied methodology was to facilitate a learning exercise that provided participants with opportunities to rethink, reinvent, and broaden the scope of possibilities under consideration in a collective, mutually reinforcing environment.

One of the most successful outcomes of this experiment was a hypothetical framework for future regional cooperation drafted by one of the project's advisers (see **Appendix C**). This document subsequently became the starting point for productive and thought-provoking discussions regarding the region's security environment and the challenges and opportunities therein for South Asia's future. The hypothetical framework, labeled "The South Asian Regional Ecological and Environmental Security Authority" (SAREESA), explicated in detail the agenda priorities and jurisdictional parameters for a fictional future regional institution established to address the nontraditional security challenges of food, water, energy, employment, health, and environmental security confronting South Asia in 2025.

The workshop discussions yielded some unanticipated outcomes. During one particularly lively session focused on the SAREESA framework, two senior-level policymakers from the region—who were not part of the project team but were invited to attend the Colombo workshop—stopped the discussion to ask where they could access the (fictional) institution's website for more information. Importantly, the hypothetical SAREESA framework proposed "an authoritative body that would be an umbrella body with the mandate and authority to enforce adherence to its collective decisions." By contrast, the existing SAARC has no authoritative writ over its member nations and thus has proved to be rather ineffective as a regional organization since its inception in the 1980s. The question from the senior-level policymakers revealed an unexpected degree of buy-in by otherwise skeptical participants into the plausibility of a hypothetical future cooperative body—one with actual teeth—that addresses critical regional challenges.

Of course, implicit in the description of SAREESA were certain assumptions about the economic, political, security, and geopolitical realities of that future timeframe. Participants' discussion of these assumptions and their implications revealed divergent perspectives regarding South Asia's geopolitical environment. The purpose of the exercise, which proved successful, was to identify potential points of conflict and convergence in order to encourage participants to imagine innovative and pragmatic solutions to the future challenges confronting South Asia. The project offered several fascinating insights. The following major themes with the potential to influence the future of South Asia's security environment emerged during the course of workshop discussions.

Reconfiguring South Asia and Prospects for Subregional Cooperation

The question of SAARC and why it has failed as an effective regional cooperative body was a recurring theme across all three regional workshops. Not surprisingly, a prevailing "elephant in the

room” in those discussions was Pakistan and the Indo-Pakistan relationship that has historically hampered SAARC as an institution and may continue to impede the development of a cooperative framework for the region, whether that emerges from within the SAARC structure or evolves independently of it. More intriguing is that those discussions then led to thinking not only about opportunities for cooperation within the region but also about possibly redefining traditional notions of the region’s geographical boundaries.

As more than one person proposed, perhaps what South Asia needs is to move beyond its SAARC definitions to a concept of “southern” Asia that begins its borders at the near side of Afghanistan-Pakistan—thereby effectively excluding the troublesome “Af-Pak” conundrum—and extends to include Burma and the rest of Southeast Asia. Southeast Asian states are increasingly interested in and receptive to exploring the opportunities offered by greater integration with South Asian countries such as India, Bangladesh, Bhutan, and Nepal. Such a redefinition of South Asia might offer more frequent, not to mention more effective, opportunities for cooperation at a subregional level. Interestingly, there has already been movement in this direction, not only within South Asia’s traditional boundaries—through subregional cooperation among select bilateral, trilateral, and even quadrilateral groupings of South Asian states—but also among countries straddling two or more traditionally defined regions. In particular, the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), which includes both South and Southeast Asian countries, is viewed by many proponents as a more flexible and effective model for transregional or subregional cooperation.

Implications of the Rise of India

The rise of India in the global arena and its large role in South Asia featured prominently in all three workshop discussions. Not surprisingly, the strongest objections to the supranational nature of the hypothetical future cooperation framework proposed by SAREESA came from the audience at the project’s New Delhi workshop, where a number of the Indian policy representatives expressed discomfort with the notion of a supranational body whose authority and jurisdiction could potentially supersede national interests.

India has always had a strong tradition of adopting a protectionist stance on issues perceived to impinge on national sovereignty, a legacy of both the country’s colonial past and the Cold War realities of the twentieth century. Particularly in India’s relations with its neighbors, the inclination has been to resolve emerging disputes internally or bilaterally with the concerned country, with efforts to engage third-party mediation—e.g., by the international community—often treated with suspicion and deemed unwelcome. At the same time, the heightened focus on India today as an emerging global power has also generated an awareness within Indian policy circles of a need for a new strategic vision that better fits the country’s great-power aspirations, and that may demand a reset of traditionally held notions of national interests to encompass a broader sense of regionalism. This would necessitate taking steps to strengthen cooperative efforts on regional stability in order to enable India to move beyond the challenges of regional insecurity and more capably embrace its global aspirations.

Interestingly, representatives of the smaller countries in the region—as exemplified in both the Dhaka and Colombo workshops—seemed much less concerned with issues of national sovereignty or even with the “big brother” fears that have in the past hampered India’s relations with its neighbors. Rather, they seemed to view India’s rise on the global stage as an opportunity to promote a South

Asian identity and the region's interests more effectively in the global forum. However, representatives from these states also openly posed a question to India: would it rise above its own narrow interests to meet that challenge and take on more regional responsibility, or would it instead, in its ambitions to be a global power, choose to leave South Asia behind? If anything, the globalized nature of today's world seems to support the argument that India cannot assume its desired position on the global stage without promoting the growth of the rest of South Asia. And to do so, it first needs to address and resolve the existing disputes with its South Asian neighbors.

Impact of Nontraditional Security Challenges on the Security Paradigm

The nature of the nontraditional security challenges faced by South Asia may offer opportunities to change the regional security agenda and could even subsume traditional security concerns. As articulated by a number of workshop participants, the nontraditional security threats of today could become sources of traditional conflict tomorrow if not effectively addressed. The past decade has already borne witness to trends in this direction. For instance, the 2008 hikes in food prices in Bangladesh—caused by crop yield shortages due to natural disasters the previous year—triggered antigovernment protests in Dhaka as well as in other parts of the country. There were also concerns of potential political unrest in Pakistan following the 2010 flood, particularly with regard to Taliban and other extremist Islamist groups making inroads with the population through disaster-relief efforts. Any such triggers that might lead to instability could threaten the overall security environment in the region, particularly in such countries where the existing political regimes are already weak. There is thus a growing realization among regional policymakers of the potential dangers of nontraditional security threats to traditional security and political stability, as evidenced by measures taken at both the domestic level (through revised national security priorities and frameworks) and the regional level (through efforts to strengthen existing SAARC institutions dealing with nontraditional challenges), but there was a general consensus among workshop participants that more needs to be done.

Workshop discussions also generated some interesting notions pertaining to the blurred boundaries between traditional and nontraditional security challenges and yielded insights into how evolving notions of security within South Asian policy corridors might address future and emerging challenges in the region. A potential paradigm shift from traditional to nontraditional security may also redefine other notions of security. For example, the region could witness a shift from national security to human security priorities, from state-centric to people-centric approaches to security solutions, and from Track I and Track II to Track III “citizen diplomacy” to mobilize political will both within and across state boundaries.

South Asia's Demographic Dividend, the Implications of a Technological Revolution, and the Role of Civil Society and the Media

South Asia's youth bulge, particularly in the context of an emerging generation of policymakers, offers opportunities for new thinking on traditional security issues, unhampered by the baggage of history. The next generation could be more willing to engage multilaterally than the previous and current generations have been. For instance, one of the Indian project participants referenced a program she had participated in early in her career that had invited young analysts and aspiring policymakers from the region to a biannual conference series focused on the discussion of both traditional and nontraditional security issues in South Asia. The purpose of the program was to facilitate productive dialogue on critical concerns confronting the region but also, and perhaps

more importantly, to foster and build a network of future policy “movers and shakers” that would be more open to cooperative efforts than previous generations.

As evidence of the program’s success, the participant emphasized that some of her most successful interactions with counterparts in the region, most notably in Pakistan, have been with fellow graduates, whose perspectives are often at odds with their contemporaries in both countries who have not been exposed to that experience. Nonetheless, there are existing challenges in this arena that, if not adequately addressed, may contribute to and perpetuate trends toward insecurity in the region. While the program referenced above has long been discontinued, given current trends in hostilities between India and Pakistan, perhaps it is time to revive the initiative, to avoid nurturing new generations of decision-makers whose policies may be more informed by a continued demonization of the opposite side than by attempts to know and learn about them, and thereby avoid perpetuating the mistakes and hostilities of the past. In addition, project participants cautioned that there is a potential dark side to South Asia’s anticipated demographic dividend. A growing youth bulge faced with inadequate educational resources or employment opportunities poses potential challenges to regional security and stability.

At the same time, tech-savvy and globalized emerging generations offer opportunities for new thinking on solutions to nontraditional security challenges. A technological leap also offers opportunities for new ways of thinking about solutions to South Asia’s stresses. One idea proposed at the workshops was to encourage research communities in regional countries to collaborate more effectively on these issues. However, technologies are also not without risks, as they can further divide or fragment societies (with respect to the haves and have-nots) and thereby contribute to insecurity. The mobilizing capacity of technology across transnational boundaries and communities can also be used for negative purposes, as exemplified by the August 2012 cybercrime attack by groups in Pakistan. The attack targeted people from India’s northeastern states who were working or studying in the southern cities of Hyderabad and Bangalore and was meant to incite panic among a vulnerable community and discredit Indian government policies in the northeast.

Increasing rates of connectivity offer unprecedented opportunities for collaboration and thereby help bridge the knowledge divide, mobilize people across borders and regions, and potentially contribute to “ground up” (Track III) pressures on “top down” (Track I or II) processes to institute political change. A common theme in all three regional workshops was the role that civil society and grassroots pressure can play in influencing the domestic and foreign policy agendas of South Asian nations. Numerous examples in South Asia demonstrate the power of the people to positively or negatively affect the policy process. The Anna Hazare movement in India is one such case of a popular mass movement compelling the government to seriously address the issue of corruption—although some might argue that the movement has also had a debilitating effect on the government’s ability to function normally.

Participants at the project’s New Delhi workshop took this notion one step further by drawing attention to the role of the media in creating public awareness, and thereby influencing public debate, on critical policy issues. Understandably, there was a good deal of criticism focusing on the danger that misinformed and irresponsible media coverage of sensitive issues could exacerbate tensions and hamper state-level policy processes. The hurdles in ongoing negotiations between India and Bangladesh over the Teesta River have not been helped by ill-informed and at times inflammatory media coverage, often driven less by factual reporting than by the political imperatives of competing domestic interest groups. At the same time, however, workshop participants were enthusiastic about

the prospect of channeling the power of the media in a more constructive direction. Participants determined that the latent power of a relatively free and open media network across South Asia, by helping bridge analytical, policy, and media silos, could be effectively tapped to inform public awareness on critical issues of mutual concern. The media could thus be used to create a sense of urgency within national elected governments toward realizing greater regional cooperation in addressing those challenges.

Conclusion

There is no question that South Asia is a complex region, dominated by difficult relationships and confronted with serious challenges of both the traditional and nontraditional varieties. The recent upsurge in tensions between India and Pakistan—the two countries that have historically limited the effectiveness of regional institutions in South Asia—would seem to dampen prospects for successful efforts in that direction, whether within the SAARC framework or outside of it, particularly if such efforts require the participation of both countries. However, as project discussants highlighted and recent trends appear to indicate, the prospects are not entirely bleak for a stable regional architecture in South Asia—one that not only promotes security but also encourages growth and stability. What is required is to view the security environment through a different lens. In particular, the benefits of redefining the concept of South Asia are worth exploring, particularly as current trends indicate forward momentum in efforts to strengthen relations—either bilaterally or multilaterally—among subsets of countries making up the region.

India and Bangladesh have made historic strides in the past two years in moving closer together, with resolutions expected on a range of issues from long-standing border disputes to water and energy sharing agreements and more open visa and trade regimes. Likewise, India has also made significant strides in improving its relations with postwar Sri Lanka and Nepal. India, Bangladesh, and Nepal are in discussions regarding potential river-water sharing and collaborative hydroelectricity projects, with the prospect of also including Bhutan at some point. Project discussants at the Washington, D.C., briefing events emphasized that the imperative of an integrated regional energy grid, in the face of growing energy demand and mutual energy interdependence, might offer plausible pathways to regional cooperation. The prospect for a regional power grid is already a prominent issue on most, if not all, South Asian government agendas.

All these issues can serve as building blocks for strengthened political and security cooperation in the future. India appears to be taking seriously its responsibilities in the region as an emergent global power, both by working toward ensuring a stable and secure backyard and by recognizing that a strong and growing South Asia can accelerate India's own ascendancy as a global power. Likewise, with the exception perhaps of only Pakistan, India's neighbors in South Asia are increasingly acknowledging the benefits of partnering and working with India as it rises rather than holding on to the grudges and grievances of the past. Difficult points of contention on long-standing traditional security disputes of course remain. Yet as long as these countries are willing and able to compartmentalize those issues and move forward on areas where cooperation is desirable and achievable—and there do appear to be positive trends in that direction—the prospect of building a viable security architecture for South Asia need not remain a pipe dream, however “nontraditional” its building blocks may be.

— APPENDIX A: PROJECT TEAM —

This list includes experts who were part of the project team for either all or select phases of the project and identifies their titles and affiliations at the time of project participation.

Dr. Abbas Bhuiya, Senior Social Scientist, *ICDDR,B* (Bangladesh)

Mr. P.G. Dhar Chakrabarti, Executive Director, *National Institute for Disaster Management* (India)

Mr. Tim Cook, Project Director, Political and Security Affairs, *National Bureau of Asian Research* (United States)

Dr. Amal Jayawardane, Executive Director, *Regional Centre for Strategic Studies* (Sri Lanka)

Dr. Mallika Joseph, Deputy Director, Institute of Peace and Conflict Studies (India)

Mr. Roy D. Kamphausen, Senior Associate, Political and Security Affairs, *National Bureau of Asian Research* (United States)

Ms. Mahin Karim, Vice President, Political and Security Affairs, *National Bureau of Asian Research* (United States)

Ambassador Tariq A. Karim, High Commissioner for Bangladesh to India (Bangladesh)

Dr. Saman Kelegama, Executive Director, *Institute of Policy Studies of Sri Lanka* (Sri Lanka)

Professor Sridhar K. Khatri, Executive Director, *South Asia Centre for Policy Studies* (Nepal)

Dr. Mahendra P. Lama, Vice Chancellor, *Central University of Sikkim* (India)

Dr. Li Li, Associate Research Fellow, *Institute of South and Southeast Asian Studies, China Institutes of Contemporary International Relations* (People's Republic of China)

Dr. Richard Matthew, Director, Center for Unconventional Security Affairs, *University of California–Irvine* (United States)

Dr. Adil Najam, Director, *Frederick S. Pardee Center for the Study of Longer-Range Future, Boston University* (Pakistan)

Dr. Ainun Nishat, Bangladesh Country Representative, *International Union for Conservation of Nature* (Bangladesh)

Dr. Dennis Pirages, Dean's Professor of Government, *University of Nevada–Las Vegas* (United States)

Mr. Ali Tauqeer Sheikh, Founding CEO, *Leadership for Environment and Development (LEAD) Pakistan* (Pakistan)

Ambassador Farooq Sobhan, President, *Bangladesh Enterprise Institute* (Bangladesh)

Dr. Abid Qaiyum Suleri, Executive Director, *Sustainable Development Policy Institute* (Pakistan)

Dr. Bishnu Raj Upreti, Regional Coordinator, *NCCR South Asia* (Nepal)

Dr. Stacy D. VanDeveer, Associate Professor of Political Science, *University of New Hampshire* (United States)

Dr. Jinxia Wang, Senior Researcher, *Center for Chinese Agricultural Policy, Chinese Academy of Sciences* (People's Republic of China)

Dr. Yu Xiaofeng, Director, *Center for Non-Traditional and Peaceful Development Studies, Zhejiang University* (People's Republic of China)

NBR SPECIAL REPORT #28 (JUNE 2011)

Ecological and Nontraditional Security Challenges in South Asia

- 14 Ecological Security: A Framework for Analyzing Nontraditional Security Issues
Dennis Pirages
- 15 Nontraditional Security Challenges in South Asia
Farooq Sobhan
- 16 Environmental Security and Disaster Management in South Asia: Initial Thoughts on Implications for the United States
Stacy D. VanDeveer
- 17 Nontraditional Security and China's Relations with South Asia
Li Li

NBR SPECIAL REPORT #32 (OCTOBER 2011)

Nontraditional Security Threats in Pakistan

- 18 Nontraditional Security Threats in Pakistan
Ali Tauqeer Sheikh

NBR SPECIAL REPORT #34 (NOVEMBER 2011)

Nontraditional Security Challenges in India: Human Security and Disaster Management

- 19 Human Security Challenges in India
Mallika Joseph
- 20 Challenges of Disaster Management in India:
Implications for the Economic, Political, and Security Environments
P.G. Dhar Chakrabarti

NBR SPECIAL REPORT #36 (JANUARY 2012)

Nontraditional Security Challenges in Nepal

- 21 Health and Human Security in Nepal and Possible Trajectories for 2025
Sridhar K. Khatri
- 22 Water and Food Insecurity: Nontraditional Security Challenges for Nepal
Bishnu Raj Upreti

NBR SPECIAL REPORT #38 (FEBRUARY 2012)

Health Security Challenges in Sri Lanka and Bangladesh

- 23 Emerging Health Challenges for Sri Lanka in the New Millennium
Amal Jayawardane
- 24 Health Threats as Nontraditional Security Challenges for Bangladesh
Abbas Bhuiya

Ecological Security: A Framework for Analyzing Nontraditional Security Issues

Dennis Pirages

This essay lays out a new nontraditional security paradigm, specifically with respect to security challenges that South Asia faces due to ecological disruptions.

MAIN FINDINGS

- Nontraditional security or ecological crises have been responsible for killing and injuring substantially larger numbers of people over time than conventional military threats, and therefore represent a parallel and arguably more important source of insecurity.
- Ecological or nontraditional security depends on maintaining a dynamic equilibrium between humans and nature, humans and other species, and humans and pathogens, as well as among human societies.
- Demographic changes, specifically population growth, are the most destabilizing factors in developing countries. Ecological security problems are created as the capabilities of nature are unable to meet the demands of rapidly growing societies.
- Deepening globalization and increasing urbanization have the potential to severely destabilize the equilibrium between human populations and pathogens. Recent outbreaks of new infectious diseases may foreshadow serious pandemics in the near future.
- Global warming will have a major impact on all four relationships defining ecological security: coastal areas will be at greatest risk due to flooding; warming will permit pests and pathogens, particularly tropical diseases, to move beyond their traditional regions; and the disruption of ecological equilibrium could increase conflict between societies.

POLICY IMPLICATIONS

- The likely exponential increase in ecological security challenges over the next three decades, both globally and in South Asia, must be met by a heightened ecological security perspective capable of identifying and addressing this broad array of challenges.
- Creating a more ecologically secure world will require adjusting defense expenditures to better reflect the actual security threats of the 21st century, which are increasingly nontraditional rather than conventional military threats.
- The adoption of an ecological security perspective will also involve recognizing that we live in a global system in which increasingly porous borders make cooperation among neighboring countries essential for future well-being.

Nontraditional Security Challenges in South Asia

Farooq Sobhan

This essay provides an overview of the key nontraditional security (NTS) issues facing South Asia and examines ongoing and potential initiatives to mitigate future NTS challenges.

MAIN FINDINGS

- Excessive military spending in South Asia has been one of the reasons for restricting expenditure on human security and NTS issues. During 1998–2008, defense budgets increased by 41%.
- In South Asia, food costs constitute the average household's largest expenditure. If food prices continue to rise without a matching increase in incomes of people at the bottom of the economic ladder, it is estimated that approximately 100 million people could be pushed back into poverty.
- Over the past 25 years, natural disasters and environmental degradation have killed nearly half a million people in South Asia and inflicted colossal damages estimated at \$59 billion.
- The lack of long-term energy planning by South Asian countries has caused human suffering and significantly hindered the entire region's economic growth prospects.
- While there is growing recognition that both traditional and nontraditional security challenges require regional integration and regional solutions, a number of studies in South Asia have found that the main obstacles to such cooperation in countering NTS threats remain mistrust and the absence of political will.

POLICY IMPLICATIONS

- South Asian governments have not yet fully realized that military measures and domestic policies alone cannot overcome NTS challenges; rather, many of these challenges must be faced collectively and through regional cooperation.
- A framework for managing regional disasters needs to be designed. The framework should include a comprehensive strategy and action plan, cover institutional mechanisms, provide tools for mitigation measures, and facilitate a legal framework and policy directions.
- Special attention should be paid to strengthening networking among research institutions in the region working on NTS issues and encouraging them to provide inputs, ideas, and strategies for joint action. It is equally important that this network of research institutions closely monitors and evaluates regional and subregional projects.

Environmental Security and Disaster Management in South Asia: Initial Thoughts on Implications for the United States

Stacy D. VanDeveer

This essay examines the implications for the United States of South Asia's current and future nontraditional security (NTS) concerns related to environmental security and disaster management.

MAIN FINDINGS

- NTS challenges are most likely to become priority issues for U.S. policymakers when they are perceived to threaten regional stability or the U.S. power position in South Asia.
- It is unlikely that NTS issues in the region will become a U.S. priority, unless they multiply or enhance existing threats or social cleavages.
- U.S. policies and social practices have externalized (that is, globalized) much of the costs of U.S. fossil fuel use and material consumption onto the developing world, where climate change will have a substantial impact without local populations receiving many of the short- and long-term benefits associated with economic growth in OECD countries.
- All evidence suggests that by 2025 South Asia will play host to a larger human population with greater economic inequality that will struggle to survive and prosper amid changing global, regional, and local climates and weather patterns.

POLICY IMPLICATIONS

- As the ramifications of climate change accumulate and accelerate, policymakers in affected states will have greater incentive to link their needs to U.S. policy priorities in order to gain leverage with the U.S.
- If the effects of climate change are blamed on the U.S., domestic political actors in the region are likely to exploit popular anger. This has the potential to make international cooperation with U.S. policymakers more difficult or to increase hostility toward U.S. interests in the region more broadly.
- Long-standing disaster threats will likely either persist or worsen, even as growing populations and economies seek greater public-sector capacity to manage environmental security and disaster risks.
- Regional institutions can enhance, but not replace, state and private-sector capacity. Therefore, U.S. engagement in regional institution-building should focus on enhancing the capacities of both the public and private sectors to meet challenges such as infectious diseases, migration, and climatic disasters.

Nontraditional Security and China's Relations with South Asia

Li Li

This essay examines the implications of emerging nontraditional security challenges for China's relations with South Asia.

MAIN FINDINGS

- China and South Asia face many of the same nontraditional security challenges, such as limited arable land for large populations, protracted poverty, limited access to energy resources, and environmental threats.
- Several of South Asia's nontraditional security concerns negatively affect China and its relations with the subcontinent. Poor human security, in terms of poverty and terrorism, jeopardizes Chinese business and investment in the region.
- Regional cooperation on nontraditional security issues is also limited by low levels of cross-cultural linkages. Poor sanitation and health care in South Asia discourage cultural exchanges, such as Chinese tourism and foreign study.
- Water security is an extremely sensitive regional issue because both China and South Asian countries face increasing water shortages due to urbanization, industrialization, and climate change.

POLICY IMPLICATIONS

- Traditional and nontraditional disputes between China and South Asia can only be solved through cooperation. The two sides could use lessons learned from previous cooperative efforts on nontraditional threats to strengthen their collaboration and take preventive steps to ensure peace and prosperity in the region.
- Bilateral cooperation has occurred in agriculture, poverty reduction, health and disaster management, and energy and climate change. However, the two sides should also explore solutions at a multilateral level, such as the China-SAARC cooperative mechanism.
- Cooperative measures are crucial for addressing several sensitive issues, particularly terrorism, growing food and energy demands, and water security. These nontraditional security challenges have the potential to exacerbate existing disputes in the region, especially between China and India.

Nontraditional Security Threats in Pakistan

Ali Tauqeer Sheikh

This essay examines Pakistan's most significant nontraditional security challenges, including climate change, increasing population and urbanization, food security, and water security.

MAIN FINDINGS

- Climate change will negatively affect human activities and livelihoods in Pakistan through increasingly frequent extreme weather events and changes in temperature and precipitation. A rise in extreme weather has already led to an alarming increase in the number of people killed, injured, or made homeless.
- Pakistan's large population and high growth rate adversely affect all aspects of society, the economy, and the environment. Population growth creates and exacerbates vulnerabilities by endangering basic civic amenities, leading to a lack of clean water and space for housing and ultimately burdening society.
- Growth in agricultural productivity has broadly kept pace with accelerating demand. However, medium-term food security challenges will become far more daunting if immediate attention is not paid to managing water resources, both underground and in the Indus Basin river system.
- Water security is the most serious challenge for Pakistan due to several factors, particularly the increasing pressure of population growth and urbanization, massive expansion of tube-well irrigation, reduced levels of precipitation caused by climate change, and the accelerated retreat of Himalayan glaciers.

POLICY IMPLICATIONS

- Pakistan can mitigate the adverse effects of natural disasters through early warning systems, technological advances in building and infrastructure construction, improved sanitation systems, increased disaster preparedness, and an organized health sector response.
- Expanding and enhancing the information and knowledge base on climate change, as well as mapping vulnerabilities, trends in internal migration, and the incidence of disease, can help create adaptive measures for reducing the effects of climate change.
- The successful implementation of mechanisms to address nontraditional security issues will require that South Asian countries work together to adopt ecosystem-wide approaches that incorporate transboundary strategies.

Human Security Challenges in India

Mallika Joseph

This essay briefly analyzes the significant human security challenges that India faces today and identifies those that are likely to persist in 2025.

MAIN FINDINGS

- While India is home to the world's richest people, it is also home to the world's poorest. This huge economic disparity will determine the status of human and national security in India in 2025. Advances in mass communication have contributed to a more integrated, interdependent, and informed polity that is unlikely to continue passively accepting such stark economic disparities.
- Many policies in India continue to be driven by state-centric frameworks. While reforms are under way to make the government more accountable, transparent, and responsive to the needs of the people, the implementation of these reforms is undermined by high levels of corruption, the criminalization of politics, and weak institutions.
- There is a lack of clear understanding about the elements of human insecurity that are manifest in India. When communities in India revolt as a result of their loss of dignity or access to land, the government views this only as a law-and-order problem that requires police action, rather than implementing responses that are as multidimensional as the causes themselves.
- Chronic misgovernance and total administrative apathy for the developmental needs of marginalized communities have resulted in pockets of acute human security deficit. The rise in regional radicalization and the growing influence of left extremism, such as the Naxalite movement, are only symptoms of emerging disaffection with the government.

POLICY IMPLICATIONS

- If India wishes to reap the future benefits of a vibrant economy, it must address the growing economic disparity in its population. The state of human security in India fifteen years from now will largely depend on its ability to close this gap.
- Many of India's human security concerns continue to be located within its institutions and structures, which are not easily or equally accessible to all its citizens. Unless India is able to develop social and political delivery systems that distribute the benefits of economic growth beyond the privileged few, the country's potential to be a regional or global power will be limited.
- Left extremism is likely to be one of the most serious challenges to Indian security in the forthcoming decade if the government does not address basic issues of governance and accountability.

Challenges of Disaster Management in India: Implications for the Economic, Political, and Security Environments

P.G. Dhar Chakrabarti

This essay examines the disaster management challenges in India and assesses the implications of those challenges for that country's economic, political, and security environments.

MAIN FINDINGS

- In the past two decades, India's public policy on disaster management has shifted from a focus on relief and rehabilitation efforts to holistic management of disasters. This new policy approach incorporates pre-disaster issues of prevention, mitigation, and preparedness, as well as post-disaster issues of response, recovery, and reconstruction.
- New initiatives, such as mainstreaming disaster risk reduction in development, building capacity through education and greater awareness at all levels, and utilizing advanced technologies, have enhanced India's preparedness for each phase of disaster management.
- Unsafe building practices in rapidly growing urban settlements constitute one of India's greatest challenges for disaster management. A major earthquake in any of India's densely and heavily populated cities in seismic zones would be catastrophic in terms of fatalities.
- Climate change has far-reaching implications for managing disaster risk in India, as the frequency and intensity of flash floods, landslides, droughts, cyclones, and storm surges are expected to increase in upcoming decades.

POLICY IMPLICATIONS

- While significant achievements have been made in post-disaster response and reconstruction, there are still formidable challenges to reducing the risk of future disasters.
- Disaster management policies must incorporate programs to protect the most vulnerable segments of society—the poor, marginalized, women, children, disabled, and elderly.
- Mechanisms must be designed and adopted for transferring lessons learned for pre- and post-disaster management between communities.
- Given that natural disasters do not always follow national boundaries, cross-boundary issues of disaster management should be addressed through enhanced regional cooperation. Furthermore, an effective regional response system should be developed to pool capacity for mutual benefit.

Health and Human Security in Nepal and Possible Trajectories for 2025

Sridhar K. Khatri

This essay examines the current political canvas of Nepal, with a particular focus on health and human security issues, and explores possible scenarios for how the country might evolve through 2025.

MAIN FINDINGS

- Economic and social uncertainty, introduced by political actors and interest groups jockeying for benefits during the current political transition period, reduces the human security of the general public, which the new constitution is supposed to ensure.
- Nepal continues to face major challenges in meeting minimum health standards and tackling the health disparities that exist among different population groups. Key health sector challenges faced by Nepal today include gender and ethnic/caste discrimination in provision of healthcare services, access to safe and adequate supplies of water, and basic access to health services.
- There are three possible scenarios for Nepal looking ahead to 2025, based largely on potential trajectories in the country's level of governance: a "bleak" scenario, in which parties fail to effectively complete the constitution-making process; a "business-as-usual" scenario, in which parties are successful in drafting a constitution but are unable to implement it; and an "optimistic" scenario, whereby cooperation allows for more effective implementation of the constitution, leading to appreciable changes in the country's human development indicators.

POLICY IMPLICATIONS

- The key element in ensuring proper healthcare within a human security framework is the quality of governance in the target country. The dominant threat to both human security and the integrity of state structures in South Asia is posed by internal conflicts.
- Nepal will need to focus on a steady human development approach with greater opportunities for the less-developed ecological regions and more balanced growth between the urban and rural areas. The government will also need to reach out to marginalized caste and ethnic groups, particularly the Dalits and Muslims, who rank lowest in the UN Human Development Index for the country.
- Four significant drivers will influence Nepal's future trajectory: the behavior of the country's political parties; the degree and nature of the international community's involvement in Nepal's affairs; the impact of technology on the country's political, economic, and social development; and the perceptions and behavior of the Nepali people vis-à-vis the state.

Water and Food Insecurity: Nontraditional Security Challenges for Nepal

Bishnu Raj Upreti

This essay examines the three most significant challenges related to water and food security for Nepal and analyzes their potential trajectories.

MAIN FINDINGS

- Food and water insecurity was one of the structural causes of the armed conflict in Nepal's mid-western region. Water scarcity and food insecurity in Nepal are not only politicized but also marginalized in policy and practice; these two issues are a perennial source of sociopolitical tension and conflict in Nepal.
- Food production and distribution are among Nepal's most significant challenges for achieving food and water security. Nepal's government had to shift financial resources from strengthening local capacity in these areas to supporting the military's counterinsurgency efforts.
- Land distribution is a second major challenge, with respect to both Nepal's food and water security and its internal stability. Poor and marginalized people are becoming landless and, upon losing their traditional land rights, vulnerable to food insecurity, as they are unable to meet their families' food requirements.
- Poor and marginalized people suffer the most from inadequate and poor-quality water supplies, particularly in the Kathmandu Valley. Consequently, many people are suffering from water-related diseases because they must use poor-quality water.

POLICY IMPLICATIONS

- Politicians use insecurity as an opportunity to manipulate poor and marginalized people for political gain, especially during elections. The issues of food insecurity and land and water scarcity will thus become fertile ground for political players to leverage efforts to gain political support or weaken opponents.
- The current policies, strategies, and operational practices of the Nepalese government need a paradigm shift to address the political, economic, and security challenges brought forth by food insecurity and land and water scarcity. Nepal needs to shift investment from the conventional security sector to social sectors such as health and education.

Emerging Health Challenges for Sri Lanka in the New Millennium

Amal Jayawardane

This essay examines the most significant health security challenges that will likely emerge in Sri Lanka in the next few decades.

MAIN FINDINGS

- Sri Lanka has achieved a number of noteworthy successes in the area of health security. Infant mortality and fertility rates have dramatically declined, and life expectancy has increased considerably in the twentieth century.
- A demographic transition is underway in Sri Lanka as the relative proportion of the population over 60 years old is rapidly increasing. This trend presents new health security challenges because the elderly require specific medical treatment and care facilities.
- Non-communicable diseases have surpassed communicable diseases as the leading cause of death in Sri Lanka. Changes in consumption and lifestyle have increased the incidence of cardiovascular disease, diabetes, kidney disease, and cancer.
- Communicable diseases like dengue fever, HIV/AIDS, and tuberculosis, as well as the possibility of a flu epidemic, still pose significant health security challenges for Sri Lanka. Even though the actual number of deaths by communicable diseases is relatively small, the infectious nature of these diseases is cause for public concern.

POLICY IMPLICATIONS

- Sri Lanka's rapidly changing demographics will present major health security challenges. The government must assume a greater role in healthcare because the traditional familial support system is no longer capable of adequately providing for the needs of the fast-growing elderly population.
- In order to combat the rising incidence of non-communicable diseases, Sri Lanka will need to enhance existing health infrastructure and effectively implement prevention programs.
- Unlike with non-communicable diseases, the Sri Lankan government comes under direct public criticism whenever there is an eruption of a communicable disease. Therefore, the government must be constantly prepared for potential outbreaks.
- Finding a peaceful political solution to the country's still-unresolved ethnic conflict will create the possibility of diverting a portion of defense expenditures to health and education.

Health Threats as Nontraditional Security Challenges for Bangladesh

Abbas Bhuiya

This essay discusses health problems that have the potential to emerge as nontraditional security challenges for Bangladesh in the coming decades.

MAIN FINDINGS

- The health scenario of Bangladesh has improved in terms of increased life expectancy, immunization success, fertility rate reduction, and a reduced proportion of severe undernutrition among children.
- Maternal health is a notable health security concern because Bangladesh has one of the highest maternal mortality rates in Asia.
- There have been significant advancements in the prevention and treatment of communicable diseases in Bangladesh. However, influenza outbreaks and the increased prevalence of HIV/AIDS and tuberculosis have the potential to become health security challenges in the future.
- It is estimated that two-thirds of Bangladesh's groundwater is contaminated by arsenic. This poses a major health security challenge since many people still consume arsenic-contaminated water.
- Increased life expectancy is causing a demographic change as a larger percentage of the population is aging. Due to this trend, non-communicable diseases such as hypertension and diabetes will likely continue to rise.

POLICY IMPLICATIONS

- Bangladesh needs effective programs to improve access to healthcare facilities and skilled delivery care.
- Awareness should be raised within communities, especially among the marginalized and the poor, about health challenges and effective measures for the prevention and management of emerging health threats.
- Policymakers in Bangladesh should mitigate the conditions favoring the emergence and spread of new infectious diseases by enacting measures to curb opportunities for transmission.
- The population's vulnerability to emerging health threats can be diminished through renewed public health efforts that involve social movements and collaborations on global health promotion.

An Architecture of Cooperative Mechanisms for Addressing Nontraditional Security Challenges: South Asia 2025

Tariq Karim

Recapitulating the Challenges

In 2025, total global population is 8.108 billion, having registered an increase by a little under 18% over the base figure of 6.892 billion in 2010. Significantly, South Asia (that is the region comprising Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka) has a combined aggregate total of 3.372 billion, registering a staggering 135% increase over its figure of 1.431 billion fifteen years earlier. Its youth bulge, that is the ratio of population between those under 15 and those over 65, has also widened with the former comprising 34% and the latter declining to 5% of the total population. Whereas the average density of the population in this teeming region was 387 persons per square mile in 2010, it has taken a quantum jump to 1578 persons per square mile. This figure is calculated taking into account that, collectively, the nations of the region have been able to protect their vulnerable coastlines from being inundated by sea-water rises as well as prevent any massive loss of land by flood-related erosion of river embankments, a malaise that had plagued most of the countries until the 2010s.

Nevertheless, the sheer increase in population and the cumulative effects of glacier melts in the Himalayas and depleted ground water aquifers has significantly tightened availability of fresh water supplies. Although the momentum of increase of the population juggernaut has been slowed, the sheer volume continues to keep it growing and invasively moving forward, taxing the capacity of the region in a number of related areas. Collaborative human ingenuity has continued to result in higher crop yields per acre, but the balance continues to be tenuous. At the same time, even though in the aggregate, economies have maintained relatively high growth rates, the steady expansion of the youth bulge continuously challenges the capacity of the countries to totally eradicate the numbers of jobless. The demographic-economic landscape is also marked by increased internal migrations within countries from rural to urban centres, and between countries themselves, reflecting the intra-development gaps still persisting. Any one, or a combination of some or all, of these factors could tax the already somewhat stretched capacities of governments.

All the countries, and their respective governments and peoples, are already having to cope with worsening environmental conditions, the cumulative and deleterious effects of global warming. Himalayan glaciers have shrunk from 500,000 square kms coverage to 160,000 sq kilometers.

NOTE: This scenario narrative was initially prepared for the phase 2 workshop in Colombo on December 13–14, 2010, and subsequently expanded for discussion at the phase 3 workshop in New Delhi on November 8, 2011.

The increased rate of melting has resulted in more waters being poured into the rivers, which has increased the scope of rivers flooding, as well as creating numerous lakes at the base that have shown tendencies already of bursting their banks and aggravating the flooding perils. Weather phenomena have become unpredictable, with more oceanic storms being spawned and higher and stronger tidal surges battering coastal areas. Sea levels have already risen and coastal embankments are increasingly being threatened with breaching and large-scale inundation. Countries are also seriously concerned that the progressive and inexorable retreat of the glaciers, that historically made the rivers perennial, will render these same rivers to transform into seasonal rivers, heavily dependent upon the monsoons. The monsoons themselves have shown increasing signs unpredictability, marked with unexpected but heavy cloudburst but overall with an aggregate decrease in total rainfall as compared with historical patterns a couple of decades earlier.

For deltaic regions like Bangladesh which is the natural drainage for most of the Eastern Himalayan rivers, a double-whammy effect is in progress: on the one hand, with increasingly lesser volumes of water pushing down into the sea, but at the same time increasing higher and stronger tidal surges pushing inland from the sea, the delicate equilibrium between fresh water and salt water is increasingly threatened. A gradual but inexorable process of inward creeping annexation of sweet water territories by encroaching salt water is changing the PH factor of the formerly rich agricultural land rendering it useless for traditional agriculture, while the decline of keystone species appears to be in progress. This complexly intertwined phenomenon is already triggering mass scale internal migrations, as well as external migration. Similar tendencies are being observed in the area of drainage of the western Himalayan rivers to a somewhat lesser extent, but the phenomenon in the eastern sector is harbinger for what could also happen in the western sector.

These conditions described above pose a number of challenges for the entire region. Governments have to cater for overall ecological and environmental security, food security, water security, energy security, employment security, and health security. Additionally, governments also have to prepare for unexpected disasters (wildcard events) from natural phenomena or disease pandemics. Towards this end, all governments have collectively evolved regional mechanisms for meeting these challenges.

Ensuring Ecological Security: The South Asian Regional Ecological & Environmental Security Authority (SAREESA)

Recognizing that all these inter-related phenomena have to be addressed holistically, they have established an umbrella body with supra-national jurisdiction called the South Asian Regional Ecological & Environmental Security Authority (SAREESA). Having learnt the lesson from the inbuilt weaknesses of their previous attempt at regional cooperation within the ambit of the South Asian Association of Regional (SAARC) that had no authoritative writ over its member nations, the South Asian countries collectively decided that, considering the over-riding importance for ensuring ecological security, they needed an authoritative body that would be an umbrella body with the mandate and authority to enforce adherence to its collective decisions. This body takes decisions by simple majority that are binding on everyone; no one has any veto power.

Recognizing the extreme vulnerability of its smallest member, Maldives, these countries deliberately chose that country's capital city, Male, for locating the permanent secretariat of this authority with supra-national jurisdiction.

The SAREESA has six sectoral cells to deal with food security, water security, energy security, employment security, health security, and environmental security, respectively. Each cell is headed by an officer with the rank of Principal Secretary to the government (thus giving him a higher status and over-riding clout over the bureaucratic heads of permanent ministries in member-nations' bureaucratic hierarchy).

A minister-level governing body, the Governing Council, comprising full cabinet-rank minister from each member country, oversees the work, activities and programmes of the SAREESA. The Governing Council meets once every three months, by rotation, in each member-country's capital. It is chaired by the Head of Government of the country where the meeting is held. Decisions are arrived at by a simple-majority consensus. Decisions once taken, are mandatorily binding on every member state. The Governing Body looks at ecological security issues holistically while evaluating the work of each of its component cells, and its decisions reflect this holistic perception of the ecological landscape to which the region belongs. Its decisions are like laws passed by the national parliaments, but where the SAREESA decisions are in conflict with national laws, they over-ride the latter. Possessing this privileged position vis-a-vis national bodies, it initiates and ensures real-time information-exchange between all related national bodies in the sectoral areas of its jurisdiction.

The funding of SAREESA is through mandatory contributions from each of its member states, the amount proportional to its population but weighted by its GDP. Where necessary, SAREESA may dictate levying of taxes on income according to income slabs to meet such emergencies. For wildcard events, it maintains an emergency fund of a predetermined amount raised through taxes as well as central funding. SAREESA also may seek international donor funding to augment its own budgeted resources should a specific project so require. There is complete transparency in SAREESA's governance process. At the same time, this institution has a proactive public outreach program, that includes among other tools, mass awareness and mass education programs on various aspects related to its mandated work and jurisdiction that affect the public good and well-being overall.

Ensuring Food Security: The Food Security Cell of SAREESA

The SAREESA requires each member state to maintain a minimum reserve of foodgrains (rice, wheat or maize, as may be the case) stock sufficient to meet consumption requirements of its nationals for four months, at any given time. This is to meet national emergencies within its own domestic jurisdiction. The cost of this buffer stock is met from the domestic national budget of each member state.

Additionally, SAREESA also requires that a pre-determined quantum of foodgrains, pulses, powdered milk, bottle water, salt and sugar is also stored along centrally designated locations, (close to airports/railway stations/ports) and along the borders with adjacent countries for fast movement to disaster areas in times of extraordinary emergencies.

SAREESA directs that both categories of the above reserve stocks will have specifically designated shelf lives. These items will be put on the market at least two months before expiry of such shelf life but also replenished simultaneously with new stock with new shelf lives.

The cost of these emergency buffer stocks will be raised through a system of food security tax/levy raised monthly at a rate not less than a minimum percentage of an individual's regular income (say a monetary unit per person irrespective of par value of that unit vis-à-vis the strongest unit

in the region). This principle of compulsory contribution adds a sense of value and participatory ownership that raises the importance of this scheme in the public perception.

In case of a disaster outside the region (another region located near or far away, in the same or another continent), SAREESA enjoins individual countries to contribute in aid to the afflicted outsider region from its own domestic reserve, provided it has the capability or a viable plan for replenishment of its own stock in a timely manner. Similar contribution may be made from the regional reserve also, in consultation with SAREESA, provided replenishment is lined up within a reasonable time-frame.

SAREESA has the authority to requisition multi-modal transportation vehicles (marine, air, riverine or road) from any or all of its member-states' civil and military resources. For this purpose, it maintains a data base of all such transportation, listing what is available and where at any given time. For this purpose, the national civil and military bureaucracies are required to update the data-base at SAREESA on a regular, continuous and real-time basis.

Ensuring Water Security: The Water Security Cell of SAREESA

SAREESA's water security mandate covers overall jurisdiction over all types of water bodies, viz. ground water, surface water, rainwater and even sea water.

This cell of SAREESA has put in place a subsidiary authority under its ambit, known as the South Asian Water Security Authority (SAWSA), which is tasked with monitoring and managing all water resources in the region in a holistic manner, to regulate conservation of these resources as well as to prevent abuse or wastage. To execute its mandate, SAWSA draws up meticulously formulated rules and regulations. National laws and regulations are required to be brought into conformity with SAWSA rules and regulations, but where they are not, SAWSA writ prevails.

Managing Ground Water Resources

The region is keenly aware that years of unplanned and profligate overuse of groundwater aquifers has not only depleted many of these aquifers but also triggered unintended consequences, like arsenic leaching spreading to ever widening areas. Since ground water recharging needs a long time, with the approval of SAREESA, SAWSA has imposed very strict and stringent restrictions on sinking new tube wells of any type (whether deep or shallow). At the same time, continuing use of existing tube wells is very strictly regulated and monitored. SAWSA regularly maps existing ground water reservoirs/aquifers using sophisticated technology globally available for the purpose. Where it finds that such reservoirs are in precarious condition, it orders removal of all tube wells drawing water from that reservoir, and bans further extraction until such time as it determines the reservoir's health has been sufficiently restored and it is sufficiently viable for water extraction once again.

Managing Surface Water Resources

To manage surface water resources, with SAREESA has established three subsidiary bodies, namely:

- The Eastern Himalayan River Basins Management Body – deals with the Ganges, Brahmaputra and related basins;
- The Western Himalayan River Basins Management Body – deals with the Indus and related basins; and

- The Central-Southern River Basins Management Body – deals with the Narmada-Cauvery and related basins.

Considering that each sub-region has its own distinctive morphology, these bodies undertake river training and management on sub-regional basis. Each body undertakes to train the entire course of each river, including its tributaries and distributaries through building embankments, dredging, creating small to medium sized pondage areas serve not only as reservoirs but also as run-of-the-river hydroelectricity generating projects. Where deemed necessary, flood drainage canals are also excavated to distribute/disperse sudden/seasonal surges of flood water evenly. The electricity produced may be fed into the local/national/sub-regional grid as may apply. Service roads are constructed along one or both banks along the entire course of the river to the extent possible. Also each bank is lined with a belt of several rows of indigenous trees that serve to enhance carbon sequestration areas. Maintenance of these is done throughout the year on a continuing basis, involving the local population along the course of the river. This creates a constant bank of employment for the local people and is more labour-intensive rather than capital-intensive, generating local wealth, as well as giving a sense of local ownership of the commons besides ensuring continuous maintenance.

Moneys for initiating these projects are raised through domestic and regional taxes, as well as through multilateral donor financing. Moneys for regular maintenance are raised through a system of local taxes, and tolls where applicable.

Simultaneously, local filtration plants are established that draw surface waters, treat it for human consumption and then feed it to defined areas along the entire river course. This may augment or completely replace dependence on ground water extraction and usage.

Rainwater Harvesting and Management, & Seawater Desalination

Rainwater harvesting and management is under direct mandate of SAWSA. All new buildings/property development projects, whether personal, commercial or public, in urban, peri-urban/suburban and rural areas are required by SAWSA regulations approved by SAREESA to incorporate rainwater harvesting as an integral component. Older structures must also make suitable conversions for including this process, for which they may be eligible for some subsidies initially to undertake the inclusion.

New projects that fail to comply, however, are liable to heavy penalties as well as mandatory amendments to layout plans; otherwise they risk complete demolition without compensation.

Rainwater harvesting may be done either by the entire rainwater harvested being allowed to directly recharge the groundwater, or being channeled into storage schemes for local, communal and individual households, wells and ponds, agro irrigations channels and reservoirs to serve industries. Depending on the morphology of the terrain, SAWSA will decide which component, or what mix serves a given area's needs best.

SAWSA also undertakes small or medium sized sea water desalination plants, where considered feasible, after locating suitable technology that may be available at reasonable prices and also after having done a cost-benefit evaluation to justify such ventures.

[NOTE: Considerable R&D work is taking place to try and make this process of extracting potable water from saline water, and a competitive market is beginning to appear globally.]

Ensuring Energy Security: SAEnSA

All countries of the region have ambitious development goals, but continue to constantly endeavour to bridge the gap between power required to fuel those goals and power shortages. Recognizing the critical importance of the relationship between energy and development, as well as the need to reduce global greenhouse emissions from burning fossil fuels, the SAREESA has set up a subsidiary authority under its aegis known as the South Asian Energy Security Authority (SAEnSA). SAEnSA ensures that all national grids are interconnected to each other, and that electricity produced anywhere by multi-modal means is fed into the regional grid. The SAEnSA oversees a regional power exchange market mechanism where power is traded according to need, and the numerous substations/stations become buyers and sellers. This trade in power is strictly regulated to avoid malpractice and surreptitious or unauthorized siphoning of power.

Moneys for operating, maintaining and administering the total grid system are raised through fees built into the tradable power. Moneys for new/additional stations are derived from a mix of central funding reserves held and administered by SAREESA as well as from local taxes levied from communities where energy security is to be reached.

Countries have progressively reduced dependence on fossil fuels and supplemented them by a mixture of hydro-electric, solar, wind and nuclear fueled power plants. SAEnSA has a R&D cell that is constantly scouring the global market place for new technologies being developed elsewhere and adapting it for local use. It also puts in place the regulatory mechanism for adopting adequate safety procedures in place (particularly in respect of nuclear powered plants, which also require adequate arrangements and safeguards to be inbuilt for safe storage of nuclear fuel, safe operation of nuclear power plants, and safe disposal of nuclear waste so as not to endanger public safety and health.

Ensuring Health Security: SAREESA's Health Cell

With global and regional movements of people and all sorts of goods, including flora and fauna, and particularly microbial or viral passengers having become easier with the communication revolution and induction of super jumbo aircraft, ensuring regional health has become a greater challenge than ever.

SAREESA mandate includes regional health management issues linked particularly to communicable diseases that may escalate into epidemics or pandemics. For the purpose, SAREESA maintains a central information system of networking that links all national / or designated hospitals to a regional information centre at SAREESA. It monitors the instances of communicable diseases that are known to spread easily, and tracks movements of such diseases if they occur. The centre also maintains a regional health registry, where it stores and updates on a continuing basis, data from its network of hospitals across the region.

SAREESA also monitors animal diseases linked to poultry and livestock on a similar basis.

SAREESA has the authority to impose very strict quarantine regulations in order to forestall spread of man or animal borne diseases across borders.

Ensuring Employment Security: SAREESA's Employment Opportunities Cell

Recognizing that an unbalanced job market regionally could trigger unregulated or uncontrollable migration, SAREESA is also charged with overseeing matters related to employment creation and manpower deployment. The entire regional labour market is linked through SAREESA's interlinked network of national databases that displays job vacancies available according to categories and location as well as data of people available for employment grouped under professional categories. Free movement of labour is permitted across the entire region but on a strictly monitored and regulated basis. SAREESA serves to link up the vacancies with available persons. SAREESA, for the purpose also outsources some of this function to local agencies, but acts as central server to all these agencies, monitoring the exchanges and maintaining vigilance to ensure that no exploitation takes place.

Preparedness against Wildcard Events: SAREESA's Environmental Protection Cell

The unpredictability of the weather on account of increasing manifestations of climate change, as well as increasing tectonic movement along sea beds worldwide, particularly in areas of the world established by advanced geophysical science, has displayed tendencies of triggering massive earthquakes, tsunamis, cyclones or extraordinary floods. SAREESA is also tasked with monitoring this on a continuing 24/7/365 basis. For the purpose it is linked up with other similar centres worldwide, as well as oceanic and volcanic monitoring units spread across the adjoining seas of the Indian and Pacific Oceans.

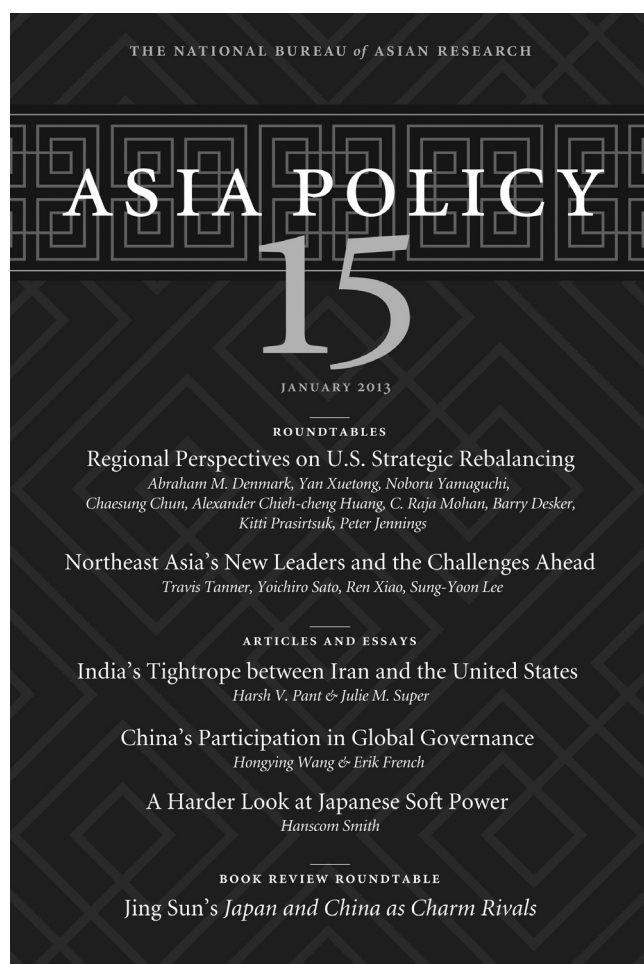
At the first signs of an event occurring or likely to occur, it triggers off a regional warning system that keeps vulnerable populations informed, and evacuates endangered populations where deemed necessary. It also activates across the region emergency related services to go into standby mode.

SAREESA maintains a fund for such emergencies. Moneys for this fund are raised through levying taxes on specific/related activities, like travel, entertainment, retail sales, etc. While the amount of the levy is relatively very small, since it is collected on a daily basis from a wide swath of the population across the entire region, cumulatively it translates into a not inconsiderable amount which is deemed sufficient to cope with an extraordinary emergency in its immediate aftermath.

THE NATIONAL BUREAU of ASIAN RESEARCH

ASIA POLICY

A peer-reviewed journal devoted to bridging the gap between academic research and policymaking on issues related to the Asia-Pacific



Asia Policy publishes, in descending order of emphasis, three types of peer-reviewed essays:

- ≈ *social scientific research articles* that both use social science theories, concepts, and approaches and draw clear and concise policy implications on issues of import to the region
- ≈ *research notes* that present, in a well-organized format, new, important, and even exploratory conceptual frameworks or descriptive information of use to policymakers, especially on topics that have traditionally been underrepresented in the literature
- ≈ *policy analyses* that present original, persuasive, analytically rigorous, and clear and concise research-based argumentation on policy matters

Asia Policy welcomes the submission of policy-related research on important issues in the Asia-Pacific. Submissions may be sent to SUBMISSIONS@NBR.ORG.

Yearly subscription rates within North America are \$35 for individuals and \$95 for institutions. Yearly subscription rates outside North America are \$65 for individuals and \$125 for institutions. Two-year subscriptions receive a \$10 discount. Subscription orders can be placed at ORDERS@NBR.ORG.



<http://asiapolicy.nbr.org>

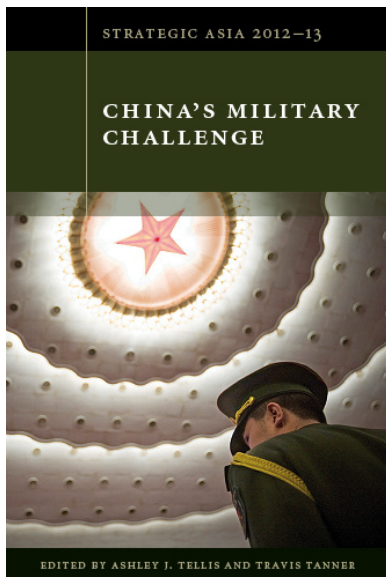


TABLE OF CONTENTS

Overview

Uphill Challenges: China's Military Modernization and Asian Security

≈ Ashley J. Tellis, Carnegie Endowment for International Peace and NBR

Emerging Chinese Military Capabilities

China's Land Forces: New Priorities and Capabilities

≈ Roy Kamphausen, NBR

China's Modernization of Its Naval and Air Power Capabilities

≈ Andrew S. Erickson, U.S. Naval War College

The Second Artillery Force and the Future of Long-Range Precision Strike

≈ Mark A. Stokes, Project 2049 Institute

Controlling the Information Domain: Space, Cyber, and Electronic Warfare

≈ Kevin Pollpeter, Defense Group Inc.

Regional Studies

China's Military Modernization: U.S. Allies and Partners in Northeast Asia

≈ Christopher W. Hughes, University of Warwick

Southeast Asia and Australia: Case Studies in Responding to China's Military Power

≈ Andrew Shearer, Victorian Department of Premier and Cabinet

China's Military Modernization: Responses from India

≈ Arun Sahgal, Institute of National Security Studies

U.S. Responses

The U.S. Response to China's Military Modernization

≈ Dan Blumenthal, American Enterprise Institute

Special Study

China's Vision of World Order

≈ Thomas Fingar, Stanford University

STRATEGIC ASIA 2012–13

CHINA'S MILITARY CHALLENGE

Edited by Ashley J. Tellis and Travis Tanner

The National Bureau of Asian Research • October 2012 • 428 pp
ISBN 978-0-9818904-2-5 (paperback) • ISBN 978-1-939131-10-2 (PDF)
\$34.95 (paperback) • \$19.95 (PDF)

ORDER ONLINE AT WWW.NBR.ORG/PUBLICATIONS

About the Book

In *Strategic Asia 2012–13: China's Military Challenge*, leading experts assess and forecast the impact of China's growing military capabilities. What are China's strategic aims? What are the challenges and opportunities facing the United States? How is the region responding to China's military power and to the U.S. policy of "strategic rebalancing"?

Recent Strategic Asia Volumes Include

Strategic Asia 2011–12: Asia Responds to Its Rising Powers—China and India

Strategic Asia 2010–11: Asia's Rising Power and America's Continued Purpose

Strategic Asia 2009–10: Economic Meltdown and Geopolitical Stability

Strategic Asia 2008–09: Challenges and Choices

Strategic Asia 2007–08: Domestic Political Change and Grand Strategy

How to Order

To order, please fill out the form below or visit <http://www.nbr.org/publications>. The full volume is available in print and electronic formats. Individual chapters can be downloaded for \$4.95 each. Previous volumes in the series are available at <http://www.nbr.org/publications>.

Name _____

Organization _____

Address _____

City _____ State _____ Zip Code _____

Phone _____ Fax _____

E-Mail _____

Method of payment:

Check ☐ Money order ☐ Credit card (Visa, MasterCard, or Amex) ☐

Card number _____ Expiration date _____

Signature _____ Date _____

2012–13 Price Information

Full volume – paperback \$34.95

Full volume – electronic copy \$19.95

Individual chapter – electronic copy \$4.95

Shipping and handling:

Within North America – add \$8 for first book and \$2 for each additional book
Outside North America – add \$16 for first book and \$8 for each additional book.
Resellers, please contact orders@nbr.org for pricing and shipping.

Send order form with payment to: The National Bureau of Asian Research • 1414 NE 42nd Street, Suite 300, Seattle, WA 98105
• Phone (206) 632-7370 • Fax (206) 632-7487 • Email: orders@nbr.org



Seattle and Washington, D.C.

1414 NE 42ND STREET, SUITE 300
SEATTLE, WASHINGTON 98105 USA
PHONE 206-632-7370, FAX 206-632-7487

1301 PENNSYLVANIA AVENUE NW, SUITE 305
WASHINGTON, D.C. 20004 USA
PHONE 202-347-9767, FAX 202-347-9766

NBR@NBR.ORG, WWW.NBR.ORG