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Introduction to a Region on Edge

The 21st century cannot be an Asian century unless South Asia marches ahead and marches ahead together.

MANMOHAN SINGH, prime minister of India,
at the 16th South Asian Association for Regional
Cooperation (SAARC) Summit, April 28, 2010

In December 1985, the heads of state of Bhutan, Bangladesh, India, the Maldives, Nepal, Pakistan, and Sri Lanka met in Dhaka, Bangladesh, and adopted the Dhaka Declaration, establishing the South Asian Association for Regional Cooperation (SAARC). While informal proposals for South Asian regional collaboration can be traced back to discussions in 1947 at the Asian Relations Conference in New Delhi, concrete proposals toward formalizing such cooperation gathered momentum only in the late 1970s under the leadership of the president of Bangladesh, Ziaur Rahman.¹ Despite initial skepticism from the governments of Pakistan and India—both of which thought that the initiative was designed to rally the other member nations against their respective interests—the SAARC Charter was signed, igniting the flame for regional collaboration.

Despite the high hopes at the time, progress toward collaboration has been limited, with tangible results proving elusive not only for SAARC but also for a host of proposals involving free or preferential trade agreements, construction of cross-border natural gas pipelines, and electricity transmission.

Predictably, historic bilateral rivalries are the predominant reason why regional initiatives have failed to gain traction. The acknowledgment of the

need for increased regional cooperation is not a dismissal of these rivalries as insignificant. To the contrary, they are rooted in historical disputes over land, religion, caste, clan, politics, and culture. Overcoming them will require determination, sacrifice, and, above all, patience.

South Asia is rapidly growing more insecure, and overcoming the obstacles to regional cooperation will be critical for the region's stability and growth. The more famous manifestations of this insecurity receive most of the media attention. They include devastating poverty; armed conflicts in Afghanistan and Pakistan; increasingly belligerent insurgencies in Pakistan, Nepal, and Bangladesh and large portions of rural India; the rise of religious extremists across the region; natural disasters (floods, earthquakes, and cyclones); and increasing water shortages as a result of, among other factors, global climate change.² This book addresses a relatively underreported issue—energy security—that, if left unaddressed, may pose a greater challenge than all the other factors combined, as it tears South Asia asunder.³

What Is Energy Security?

Although there is a vast literature and much discussion among politicians, academics, the media, the business community, and think tanks about what constitutes “energy security,” there is no consensus on a definition. Consequently, it is vital that any work addressing energy security in a region as diverse as South Asia provide a working definition that can be critiqued by other scholars. The problem that arises, however, is that the concept of energy security depends on where in society one sits. At the most basic level, energy security means having access to the requisite volumes of energy at affordable prices. There is also an implicit assumption that access to the required energy should be impervious to disruptions: that alternative supplies should be readily available at affordable prices and sufficient with respect to both available volume and time required for distribution.

From the perspective of a government concerned with its macroeconomy and the management of its strategic interests, the above definition suggests the need for energy policies and standby measures that can be implemented in the event of a supply disruption to mitigate its impact to the greatest degree possible at a cost that its citizens consider reasonable. Such measures may include but are not limited to laws and financial incentives mandating that commercial or government-owned companies keep energy stocks that exceed their day-to-day needs or government strategic stocks of key petroleum products (gasoline, aviation fuel, and so forth). In addition, supply

diversification by source, volume, and substitutable resources can contribute to an effective energy security program under such a definition.

In order to have energy security, governments must also be able to manage the macroeconomic effects of a major supply disruption. The latter includes price shocks, inflation, wide currency fluctuations, loss of jobs in energy-intensive industries, and/or changing patterns of global competitiveness brought on by a crisis. While some of these impacts occur in the short-to-medium term, others will affect the long-term health of a country if its government is not prepared to deal with the impacts of a crisis.

Enactment of such programs might provide some modicum of energy security, but they have often proved difficult to implement owing to the economic uncertainties of supply disruptions. Moreover, some argue that the effects of an oil price shock will have an impact on a country regardless of any preventive measures that its government takes: if it establishes a domestic price ceiling, it will create or exacerbate national deficits; if it relies on its oil equity abroad (for example, as India and China do) foreign governments may not allow the nation to keep the oil if they are confronted by massive shortfalls in supply for their own citizens.

From the vantage point of a private citizen, the definition of energy security is more nuanced and hinges on access to readily available resources in sufficient volume at affordable prices. Instead of being applicable to the macroeconomy, however, energy security is now applied to individuals and small enterprises. In South Asia, the latter category is overwhelmingly composed of farmers who need electricity to irrigate crops and run tube wells and natural gas to produce fertilizer. Access to energy is especially important during the harvest and planting seasons, when tube wells need electricity and machines need fuel.

Energy security in urban areas has yet another meaning. While the tariff structure for electricity consumers in cities varies widely throughout South Asia, in general residential tariffs are subsidized at the expense of large-scale commercial and industrial consumers. Rapid urbanization, growing populations, and rising middle-class incomes have led to explosive growth in electricity demand in Pakistan, India, Bangladesh, and Nepal. Brownouts (periods of reduced or intermittent electric service)—and blackouts have become commonplace, and some cities are powerless for twelve to sixteen hours a day. That has encouraged political demonstrations and sometimes violent protests. Politically motivated extremists and insurgencies in Pakistan (Taliban), India (Naxalites), Nepal (Maoists and regional separatists in the Terai), and Bangladesh (Islamic fundamentalists) have succeeded in using

power outages to present an additional example of their respective government's ineptitude and, in turn, to bolster their own political platforms. In Lahore in December 2010, despite assurances that there would be no load shedding—the selective disconnection of service areas due to lack of electricity supply—during a religious holiday, load shedding averaged two to three hours, sparking protests.⁴

For the poor in most South Asian metropolises, the energy security situation is different still. With precious little disposable income, most of these people use very little electricity, except as needed for a few light bulbs for their shops, homes, or tents; they use kerosene for lighting and charcoal, biomass, or wood for cooking. Energy security for such communities has profound implications. Because electricity allows water to be drawn by mechanical pumps, bringing electricity to villages empowers women and girls by eliminating the hours of arduous labor that they spend carrying water to their homes over difficult mountainous terrain. In Nepal, for example, with more time available, women and girls often start cottage industries, using the new source of energy to set up bakeries, canteens, and weaving enterprises, thereby adding to their household income. More free time allows children to study into the evening hours, when previously the village had gone dark. The availability of electricity allows medical operations to occur at night and vaccines to be refrigerated. Refrigeration also allows harvested crops to be preserved in storage until delivery trucks arrive, when previously a landslide, an unexpected storm, or a mechanical problem could mean financial ruin because crops could not get to market and rotted in storage or in the fields.

The South Asian Political Milieu

Today, the Indian subcontinent can ill afford the instability brought on by energy insecurity. Nowhere in the world is the intersection of booming populations, rampant poverty, and domestic and interregional religious, ethnic, and political conflicts as chaotic or as combustible as in the Subcontinent. There are myriad points of friction: internal political insurgencies throughout much of rural India, Pakistan, and Bangladesh; continued political instability in Nepal that can ignite social unrest at a moment's notice; tensions along the India-Pakistan border as the two nuclear powers tussle over Kashmir; India's concern over terrorist organizations in Pakistan and conflicts over India's presence in Afghanistan; and government attempts in New Delhi, Islamabad, and Dhaka to dam expanding pools of religious

chauvinism. There is also China's emergence as an alternative to India for trade and protection among other countries of South Asia, which many Indians see as a direct threat to New Delhi's regional supremacy and which leads some Indians to question the intent of China's diplomatic and economic forays into South Asia.

A number of exogenous factors contribute to and aggravate the intra- and interregional turbulence. In addition to global economic disruptions—such as the oil price shocks in 1973–74, 1979–80, 2005, 2008, and 2011—South Asia is also affected by annual monsoons that, while providing the lifeblood for the region's agricultural economies, can also prove disastrous. If the monsoon season is especially ferocious, it can cause floods, ruin crops, kill animals, destroy homes, and displace hundreds of thousands of people—as was clearly demonstrated in Pakistan in 2010. Parts of South Asia also suffer from droughts and growing desertification. As was the case in Maharashtra and Bihar in the 1970s, droughts can cripple the agricultural sectors responsible for the employment and sustenance of millions of people. Moreover, a changing climate poses potentially cataclysmic challenges for the Subcontinent. Maplecroft, a U.K.-based consulting firm, reported in 2010 that Bangladesh, India, and Nepal are three of the four countries most at risk from the impacts of climate change, which include coastal flooding, encroaching deserts, deforestation, and melting glaciers in the Himalayan and other mountain basins.

At the heart of many of these issues is the suffocating poverty that plagues the region. Despite enjoying several years of impressive economic growth (with more growth projected, according to many economists), the Subcontinent is still as well known for its teeming slums as for its modern industrial centers. Yet while poverty alleviation is a widely acknowledged long-term goal for countries throughout the region, energy security is often overlooked by foreign policy, national security, and economic planners and experts alike as a lynchpin for social, economic, and political stability.

This oversight is puzzling, as the development of adequate energy resources is essential to economic vitality and the ability to raise and maintain living standards in every country in the world. Indeed, the importance of energy is arguably greater in poorer countries than in industrialized ones. Given the state of their economic development, most South Asian countries need energy consumption to grow at a rate faster than GDP. Put simply, in those states, rapid energy growth is a prerequisite of even moderate economic growth. While the ratio of energy consumption growth to GDP growth can fluctuate depending on macroeconomic performance in an individual

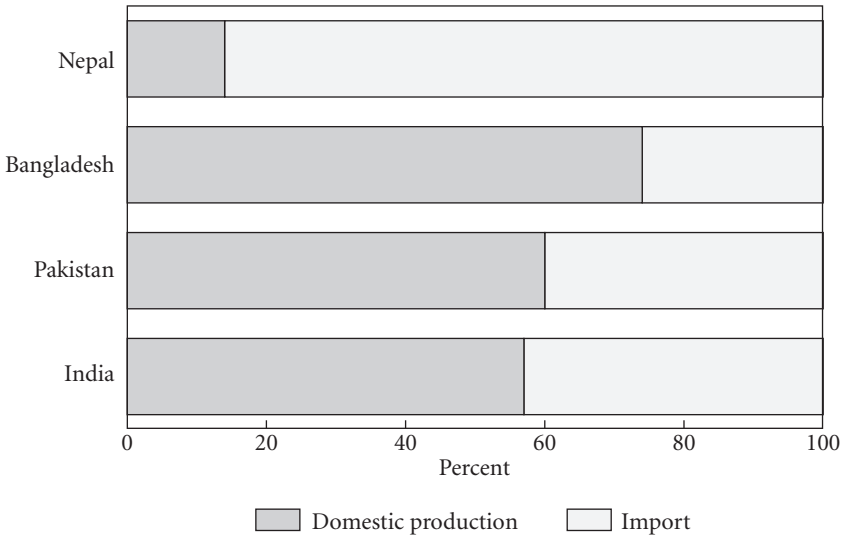
economy, on balance, this relationship holds until more advanced stages of economic development.

Against this backdrop, South Asia confronts a devastating energy shortage. Long plagued by ineffective governments that have implemented impotent policies, large swaths of the population have had minimal—if any—access to modern forms of energy, relying instead on wood, sticks, brush, animal waste, and agricultural residues for heating and cooking. Only as a result of economic progress in recent decades have South Asian populations slowly shifted from using these traditional noncommercial sources of energy to commercial sources such as coal, petroleum products, natural gas, nuclear energy, and renewable sources such as hydropower, wind, and solar energy. Despite this trend, hundreds of millions of people across South Asia continue to use noncommercial energy resources to meet their daily energy needs. With demand surging and commercial energy sources in limited supply, the threats to economic growth and stability are abundantly clear.

Challenges and Choices

The countries of South Asia face a stark dilemma: If they do not modernize their energy supply to meet accelerating demand, they remain static and undeveloped. On the other hand, if they bring economic development opportunities to the masses, they exacerbate their energy supply crunch. Across the region, the balance between supply and demand in the energy sector is, more than ever, under strain. Energy demand is rising unchecked, stimulated by economic growth, population growth, urbanization, and subsidized prices. Yet governments have a poor track record in creating policies to manage rising energy demand. The Subcontinent suffers from a relative dearth of oil and natural gas resources. Furthermore, in spite of the region's extensive coal resources, the industry is plagued with problems. The inferior quality of Indian coal makes it subject to spontaneous combustion during shipment, and much of the coal has a high ash content, thus contributing to air and water pollution, CO₂ emissions, and crop damage. In Pakistan, while there are vast coal deposits, the coal is often in inaccessible regions and is also of poor quality. Because of the lack of sustainably exploitable domestic resources, the region is heavily dependent on high-cost coal and petroleum imports (see figures 1-1 and 1-2). To mitigate the financial impact of expensive energy goods (and to appease a variety of social, economic, and political interests), the region's governments have enacted a range of costly energy subsidies and cross-subsidies for end-use consumers. Some of the

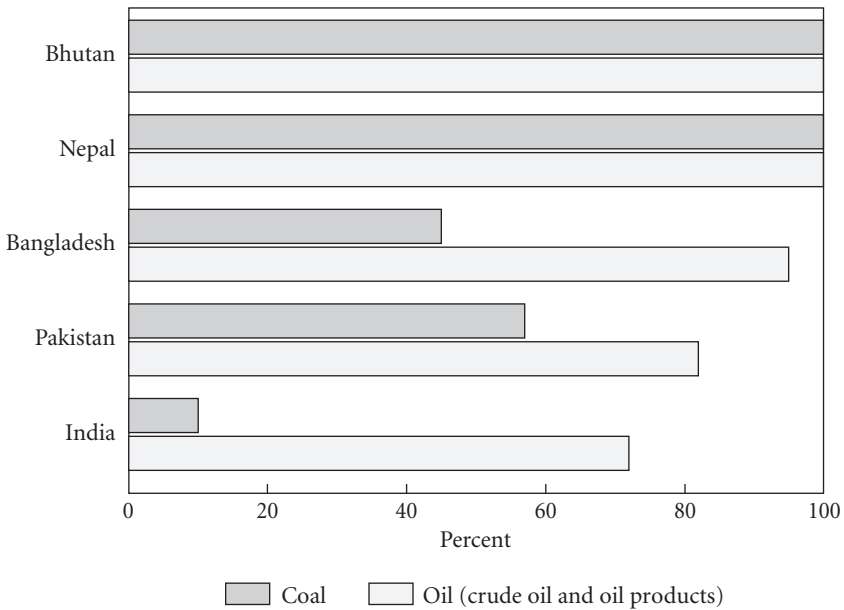
Figure 1-1. Commercial Primary Energy Supply by Source, 2008



Source: “2008 Energy Balances,” various countries, International Energy Agency (www.iea.org/country/index_nmc.asp).

subsidies, such as low well-head prices for oil and gas, have in turn created an inhospitable commercial environment for investing in the development of new resources.

The aforementioned symptoms highlight a failure of domestic policymaking. Governments across the region have failed to establish policies for long-term, sustainable energy production and consumption. Despite the different circumstances of the individual countries, there are clear common themes in their policy missteps, the most prominent of which is the failure to establish adequate pricing signals to encourage efficient consumption and future investment in the energy sector. In India, Pakistan, and Bangladesh, this is most evident in the natural gas sector. Decades of subsidies for domestic fertilizer production and electricity generation have not only depleted existing reserves but have also discouraged private sector investment from developing new fields—although recent price reforms in India have accelerated the momentum toward natural gas price “normalization.”⁵ In contrast, in Pakistan recent attempts by the government to raise petrol prices led to riots in several cities, forcing the government to rescind the proposed increases.

Figure 1-2. *Import Dependence on Coal and Oil, 2009*

Source: “International Energy Statistics: 2009,” U.S. Energy Information Administration (www.eia.gov/cfapps/ipdbproject/IEDIndex3.cfm).

Eliminating these costly subsidies is essential, as governments will at some point discover. And while raising the price of energy is always politically challenging, on the Subcontinent, where the members of what is arguably the most important voting bloc (the low-income classes) rely on subsidies for their basic livelihood, it can be political suicide. It is imperative that policymakers understand the delicacy of pricing reform and adopt a nuanced approach to energy pricing. Subsidies should be eliminated for higher-income groups—wealthy farmers in particular, who often waste the free electricity and cheap fuel provided to them—but they should be maintained, at marginally higher levels, for poorer segments of the population.

Another common theme has been the region’s inability to capitalize on various resources for electricity. For example, although Pakistan has substantial coal and hydroelectric resources, it preferred to develop what it regarded as “vast” domestic natural gas reserves at the Sui field in Balochistan and to rely on cheap oil imports. While this policy worked well through the 1950s

and 1960s, the escalation in oil prices in the 1970s and again in 2005, 2008, and 2011 rocked the Pakistani economy as foreign exchange earnings plummeted to pay for fuel oil and crude oil imports.⁶ Over time, the cost of oil imports was offset partially by large financial remittances from migrant Pakistani workers in the Persian Gulf; however, on balance, oil imports have been a sizable drain on the economy. Nepal and Bhutan also have sizable hydroelectric potential. However, while Bhutan has been singularly successful in its development of hydropower, Nepal has been unable to develop its substantial hydroelectric resources, estimated at 83,000 megawatts, because of continuing political chaos, lack of access to remote potential hydroelectric sites, a dysfunctional bureaucracy, poor weather conditions, bitter battles with environmentalists who oppose such mega-hydropower projects, and Maoist control of many of the areas that include large hydroelectric sites.⁷

Electricity development is a central factor in the development of the region, yet regional access to electricity remains alarmingly low. Across four of the five countries of South Asia analyzed in this book (recent electrification information for Bhutan was not available), 584 million people—roughly one-third of the region's total population—do not have access to electricity.⁸ Reducing the number of South Asian residents without access to power has proven and will continue to be difficult.

The crises facing Pakistan, Bangladesh, and Nepal are especially concerning. Each country is—or is in danger of becoming—a “failed state,” and an energy shortage or a power cut could ignite considerable unrest.⁹ Unfortunately, there are few easy choices to address the issue. Coal and hydroelectric resources are abundant, but they are difficult to exploit and raise environmental concerns. Developing coal deposits in the Thar Desert in Pakistan and in northern Bangladesh has been troublesome due to internal conflicts and the absence of clear policies. Furthermore, producing poor-quality coal and deploying it for electricity generation comes at a substantial environmental cost. The same can be said about hydropower development. While hydropower is a zero-carbon emissions source of electricity, large dams divert water from downstream communities and can cause flooding and displacement of local residents. Indeed, access to water may become the defining issue for political, economic, and social stability throughout the region within the next twenty years. The failure to address it in a peaceful manner could easily lead to conflict.

Other commercial sources of energy are equally problematic. Oil is expensive and carbon intensive, and renewable energy sources, such as wind and solar, can hardly be deployed at a scale adequate to meet the need for

electricity. Therefore, in addition to urgent measures to manage demand and increase efficiency, coal and hydropower will remain integral to the region's electricity mix, despite the attendant environmental concerns. Both sources of power will be complemented by natural gas and, for India and Pakistan, nuclear energy.¹⁰ Natural gas, the most promising of options, offers an environmental benefit because it emits 50 percent less CO₂ than coal. If shale gas can be developed at the estimated scale—indeed, a long-term proposition—India and Pakistan would see their domestic reserves almost triple.¹¹ Although faith in nuclear power was shaken by some of the international reaction to the disaster at the Fukushima nuclear power plant following the tragic earthquake and tsunami in northern Japan in March 2011, India and Pakistan have expressed their continued support for future expansion of nuclear energy, a zero-carbon, baseload source of electricity.

Embracing imperfect sources of energy for electricity generation is only part of the solution. More broadly, there is a governance problem confronting all the countries in South Asia. The Subcontinent suffers from an endemic institutional inertia, particularly in Pakistan, Nepal, and Bangladesh, where governments may be incapable of enacting serious reform in the absence of systemic institutional change. Across the Subcontinent, government five-year plans publicize ambitious energy targets that have no possibility of being achieved given existing economic, political, and social realities. Inevitably, projections fall short by embarrassing margins. National ministries often compete with one another for power and assets rather than collaborate toward a comprehensive energy policy. In many cases, different ministries work on divergent growth plans based on varying assumptions of economic growth, which in turn often reflect the demands of donor institutions or inputs by Western consultants who are ignorant of regional realities.¹² Too often the institutions designed to provide these services are redundant (owing to internal bureaucratic squabbling), ineffective, poorly funded, and staffed by high-level officials on the basis of politics and not professional expertise. The discussion in the following chapters of attempts at privatization of key energy sectors, especially electric power, reveals a legacy of corruption in Pakistan, Bangladesh, and Nepal that became endemic under successive administrations. Even in India, where more progress has been made in reducing the role of government in key energy sectors, that progress has been accompanied by procedures lacking in transparency. Furthermore, there is a lack of domestic regulatory and judicial capacity throughout the region that prevents the independent redress of energy issues. That, in turn, can increase the risks and costs of investment for foreign and private

enterprises whose experience and capital are desperately needed for domestic resource development.

Cooperation or Conflict?

This book is intended to be an urgent warning that both past and present policies are woefully inadequate to tackle South Asia's looming energy crisis. After a history of failures to enact difficult energy policy reforms, the region's governments can no longer solve their energy problems in isolation. There is now no choice but to look outward for much of the energy that their countries will need over the coming decades. To that end, the most egregious decision by governments throughout the region has been their willingness to allow political disputes and rivalries to overshadow the potential "win-win" economic benefits of energy collaboration. Long-term energy security is simply unattainable without intraregional and interregional cooperation.

Such cooperation is not an alien concept in the region. According to paragraph 7 of the Dhaka Declaration, the Subcontinent governments agreed that

the countries of South Asia, [which encompass] one-fifth of humanity, [are] faced with the formidable challenges posed by poverty, underdevelopment, low levels of production, unemployment, and pressure of population compounded by exploitation of the past and other adverse legacies. [The heads of state] felt that, bound as their countries were by many common values rooted in their social, ethnic, cultural, and historical traditions, regional cooperation provides a logical response to these problems.¹³

While imperfect, the 1960 Indus Water Treaty, between India and Pakistan, is another example of the potential for consummating difficult but mutually beneficial agreements. Yet in spite of public sentiment supporting the benefits of regional energy sector cooperation, a primary SAARC mandate, few intraregional energy relationships have developed. Instead, political disputes, historic rivalries, and mistrust have impeded such projects.

Behind the historically high barriers to cooperation, the potential for intra- and interregional projects is enormous. In addition to proposals for three major regional natural gas pipelines that would benefit all parties, there are scores of potential economically viable cross-border projects that would provide long-term energy access and security to the region, including projects involving cross-border trade in thermal and hydroelectric power, coal, petroleum products, and renewable energy and bilateral and regional electric

grid interconnections. Continued failure by policymakers to recognize and exploit these opportunities not only would be tragic but also would exhibit an abnegation of leadership.

The inability to engage in regional energy cooperation is not only the fault of domestic policymakers. The United States, in its singular opposition to the Iran-Pakistan-India (IPI) natural gas pipeline, deserves some blame. As argued in chapter 7, even if all the international and sectarian unrest in Pakistan were to disappear tomorrow, Pakistan would remain a failed state, and an energy shortage or a power cut could ignite considerable unrest. Decades of political decay have crippled the energy sector, which is now plagued with creaking infrastructure and routine brownouts and blackouts. Lack of electricity is keeping the remnants of the private sector from opening new factories and creating jobs, providing additional fodder for the regime's political opponents. Pakistan needs energy for its economic revitalization, and the IPI pipeline as well as the Turkmenistan-Afghanistan-Pakistan-India pipeline (TAPI), with all their problems, provide an energy resource that will be in Pakistan's capital stock for fifty years or more. This is not meant to dismiss the importance of U.S. foreign policy concerns over Iran's pursuit of nuclear weapons, nor is it a tacit acceptance of an oppressive and defiant Iranian regime; however, Washington must embrace more flexible policies in South Asia if it is truly interested in supporting Pakistan's energy security and, thereby, its national stability.

As the region's largest and most dynamic economy, India sits at the fulcrum of a major policy decision that will have consequences for the entire region. The question now before India is whether it will look far afield and attempt to tie up equity oil, coal, gas, uranium, and other deals in Africa, Latin America, Central Asia, Russia, and East Asia or whether it will cast aside long-standing political animosities with its immediate and regional neighbors and embark on development of cross-border electricity and natural gas projects while accelerating trade in petroleum products between itself and its neighbors. The stark reality confronting New Delhi is that given the level of economic and energy growth projected for South Asia in the decades ahead, India and all the other nations of the region will have to trade energy with both their neighbors and other nations in the Arabian Gulf, Africa, Central Asia, and Latin America while implementing massive demand-side management programs in their utility sectors and energy-efficiency programs throughout their economies, enacting controversial pricing reforms, and developing supplies of renewable and alternative fuels (biofuels; nuclear, solar, and wind power; coal bed methane; shale gas; and so forth).

Given the intensity of some of the rivalries, regional cooperation will be the most difficult of these measures. However, small but necessary steps could provide the foundation for more substantial collaboration and trade. For instance, given the inevitable dependence on coal of the economies of the region, joint cooperation between India, Pakistan, Bangladesh, and the United States on carbon capture and sequestration projects could be an important step in regional technical development and could address a long-term environmental concern. Another option for cooperation would be a regional link connecting the hydropower resources in Nepal and Bhutan to electricity-hungry consumers in India and Bangladesh. For this, compromise and dogged diplomacy will again be necessary: India would have to allow for transmission lines to cross into Bangladesh; both Bangladesh and Nepal would have to commit to increased border patrol security and to stronger efforts to quell the insurgencies fomenting within their borders.

Cooperation and energy policy reform in South Asia would have a number of foreign policy reverberations. In the absence of the enactment of effective long-term energy and environmental policies, South Asia's uncertain economic, social, and political stability will deteriorate, with devastating consequences for the region and for U.S. national security interests. With two states in the region and a quietly disruptive China already in possession of nuclear weapons (and a bellicose Iran actively attempting to join them), even a marginal increase in political friction poses an enormous threat to regional and global stability.

A central aspect of any decision by India regarding increased international engagement is how it perceives its long-term relationship with China and how that relationship affects India's relationship with its South Asian neighbors. Should India decide that it can pursue a commercial partnership with China while keeping a careful eye on its more contentious polices in the East and South China Seas and, potentially, the Indian Ocean, that would presage development of a region where commerce can lead to a peaceful environment for all concerned. However, in recent years China's diversion of vital water supplies from the Tibetan Plateau—combined with its enhanced military presence in the Bay of Bengal and the Indian Ocean and its more financially muscular energy diplomacy—has raised concern in Delhi about Beijing's real intentions. If this concern is left unaddressed it could lead to a more hostile commercial and strategic relationship between the two powers, with grave implications for their smaller neighbors.

From the Indian vantage point, in recent years China not only has dominated India's vital interests in the pursuit of overseas energy assets but also

threatens to impinge on India's strategic interests across the Subcontinent and further afield. Indeed, China's enhanced trade and collaboration with and strategic assistance to Pakistan and its enhanced energy and commercial trade with Central Asia, the Arabian Gulf, and Southeast Asia have generated discussion and debate in Indian policymaking circles. The heightened interest of India and China in new international trade links (for resources and other goods and services) has sparked debate in geopolitical and foreign policy circles about the implications of a new "Great Game" emerging across Eurasia. In contrast to the British Imperial–Tsarist rivalry of the nineteenth century, the new Great Game in South and Central Asia involves far more players and is set in a new geopolitical context: that of strategic and economic rivalry between India and China for control of and access to the region's resources as well as for strategic and commercial influence throughout Asia and its adjoining waters in the Bay of Bengal, the Arabian Sea, and the Indian Ocean.

In order to understand the obstacles to energy security facing the Subcontinent, it is important to have an understanding of the energy scenario in each country. Chapters 2 through 5 of this book provide overviews of each country's energy sector, including descriptions of the country's energy history, public and private energy sector institutions, and energy mix. Each country-specific chapter ends with a brief conclusion summarizing domestic obstacles and necessary reforms. Chapter 6 analyzes the region's energy challenges and identifies factors that are increasing the supply-demand imbalance. It concludes that while comprehensive domestic energy policies are vital to meeting national energy needs in the short and mid term, domestic policies alone, even if sound, will not lead South Asia out of the "darkness" in the long term. It contends that given the region's exploding populations, urbanization, and import dependence, there is no choice but for all of the South Asian nations to cast aside their differences and cooperate through bilateral and multiregional trade to meet their common energy needs. Chapter 7 details the importance of intra- and interregional trade in natural gas, electricity, and petroleum products. The analysis provides an overview of existing collaborative frameworks for natural gas pipelines that are either in place or in development, as well as plans for electricity, road, and rail links with Central or Southeast Asia. Chapter 7 also presents an overview of the various bilateral relations within the Subcontinent as well as the prospects for and obstacles to furthering energy cooperation. Finally, chapter 9 argues that despite the great existing opportunities for trade in energy, the region will remain in darkness for generations to come unless the long legacies of mistrust that pervade relationships in South Asia are overcome.