

## Energy Security in South Asia: Can Interdependence Breed Stability?

by Joseph McMillan

### Key Points

**S**outh Asia is projected to play a major role in global energy markets over the next several decades, with India alone expected to become the world's third largest importer of petroleum by 2030. Satisfying the region's growing demands will require a heightened degree of energy interdependence among historically antagonistic states. Consequently, like it or not, regional leaders will face a tradeoff between traditional desires for energy self-sufficiency and the ambitious development targets that they have set for themselves. Achieving such growth, therefore, requires that India, Pakistan, and the other countries of South Asia first address the persistent international disputes that hamper cross-border energy trade, establish effective control over presently ungoverned areas, reorient the missions of military forces to some extent, and develop a better understanding of the effects that energy interdependence will have on broader relations with neighbors.

From the U.S. point of view, understanding the multifaceted causal connections that exist among economic development, energy supplies, and security and stability, and how these dynamics are likely to affect South Asian states' decisionmaking, may provide points of leverage with which policymakers can shape behavior on a wide range of issues affecting U.S. objectives in the region.

### South Asia's Rise

Despite possessing nearly a quarter of the world's population, South Asia has long been a backwater in terms of global economic clout, accounting for less than 3 percent of worldwide gross domestic product (GDP). In the last two decades, however, the economic stagnation that has historically characterized the region has been overcome, thanks to significant policy shifts, so that the subcontinent is now the locus of some of the fastest growth in the world. India has led the way, averaging over 8 percent real growth over the last 5 years, but Pakistan, Bangladesh, and Sri Lanka have also been sustaining rates of 6 percent or more since 2005. The rise of South Asia in general and India in particular as a force on the economic scene is now almost universally recognized.

On the other hand, apart from the caution expressed by development economists about energy availability as a potential constraint on the continuation of these trends, there has been relatively little attention to the impact that the South Asian boom is likely to have on international energy markets. The dominant focus in global energy assessments has traditionally been on the major hydrocarbon suppliers—especially those in the Persian Gulf—and the developed countries that historically have accounted for the vast majority of energy consumption. More recently, China's role has been widely noted,<sup>1</sup> but South Asia has received considerably less attention. Yet South Asia will be an increasingly important player in this market. The International Energy Agency (IEA) projects that energy demand in the

subcontinent will grow at more than double the worldwide rate over the next several decades. India will probably be the world's third largest petroleum importer by 2030.<sup>2</sup>

As they come to account for a greater share of energy demand, the South Asian states will also likely play a greater role in the politics of global energy security. Conversely, energy security considerations will also begin to exert greater and more complex influence on political-military dynamics within the region. The impact of South Asia's energy future upon the region's politics, military relationships, and stability could be far-reaching and pose some basic choices for national leaderships.

### Strategic Prisms

The issue we now call energy security has been a matter of concern to national security strategists for nearly 150 years. Over time, the prisms through which the subject is seen have become increasingly sophisticated as the role of energy in daily life has grown. It is possible to identify four such strategic prisms, differing from each other based on how energy resources are used: to support military forces, to support military industry, to support national civil economies, or to sustain the broader transnational economic system.

The narrowest way of thinking about energy security from a political-military perspective is in terms of energy requirements for *military forces themselves*. This was how energy first became a matter of interest to strategists, starting with the increasing predominance of steam-powered

warships in technologically advanced navies in the mid-19<sup>th</sup> century. In the beginning, the introduction of steam power led the major naval powers to acquire colonial outposts to serve as coaling stations, but by the early 20<sup>th</sup> century, the need to ensure reliable energy supplies to military forces had led both the United Kingdom and France to establish direct government involvement in the ownership and management of major oil companies.<sup>3</sup>

By the late 1930s, a second, broader way of thinking about energy security had become apparent. While military forces themselves were even more dependent on oil than they had been in the 1910s, the primary attention of energy strategists had turned from the need to fuel ships, airplanes, and tanks themselves to the need to fuel the *military industrial complex* that produced those ships, airplanes, and tanks.

The strategic significance of reliable energy supplies for *national economies as a whole*, rather than simply for defense needs, hit home in the wake of World War II, particularly in 1946–1947, when inadequate supplies of coal, oil, and electricity for the manufacturing and transportation industries paralyzed Western European economies and raised fears not only of another depression like that of the 1930s but also of the collapse of democratic states and their replacement by communist ones. This energy crisis led directly to a radical innovation in American foreign policy—the Marshall Plan—and to the first steps toward the European integration process that over a period of several decades led to the modern European Union.<sup>4</sup>

Although the postwar European energy crisis was addressed on a transnational basis, energy security was still seen primarily in a single state context. That is, strategists worried primarily about what an energy shortage in Belgium, for example, would do to the economy of Belgium and thus to the politics of Belgium. It was only over time, as global demand started bumping against the limits of global supply and national economies became increasingly interdependent, that analysts began to understand how a severe energy shortage in one part of the world could have drastic repercussions for the *international economic system* as a whole, even in places where energy supplies were locally abundant. The economic crisis

following the 1973–1974 Arab oil embargo painfully brought home to most analysts the severe global ramifications of major energy shortages.<sup>5</sup> This systemic perspective on energy security is now virtually axiomatic within the U.S. strategy community.

These four ever-broader perspectives on the political-military implications of energy security are cumulative, not sequential. In other words, the World War II emphasis on energy security as it related to war production did not negate the need to consider the energy needs of military forces. Likewise, awareness of the systemic

### **although the postwar European energy crisis was addressed on a transnational basis, energy security was still seen primarily in a single state context**

effects of energy prices and availability on the global economy does not negate the need for strategists to take into account the other three perspectives. In 1980, planners in the U.S. Department of Defense as well as members of the congressional Armed Services committees spent nearly as much time worrying about the effect of tumultuous energy markets on military war reserve fuel stockpiles as they did about the possible use of military forces to protect global oil flows from disruption.<sup>6</sup>

## **South Asian Energy Context**

Which of these perspectives should dominate thinking about energy security in South Asia? The precise answer depends on what we think the energy picture in the subcontinent is going to look like in the coming years, but three assumptions about South Asia's energy future seem reasonable. Some would probably argue that they are indisputable.

**Increasing Demand.** First, we can assume that energy demand in South Asia is going to increase steadily and substantially

for the foreseeable future. It will probably more than double over the next 30 years—Indian requirements alone are projected to increase more than 140 percent—compared with an increase of only 55 percent for the world as a whole.<sup>7</sup> This rapid rise in energy needs is, of course, a necessary corollary of continued economic growth. It is well known that although countries may differ in their ratios of energy consumption to economic output, or *energy intensity*, there is a clear and unavoidable correlation between the two.

Moreover, this energy intensity tends to increase in any given economy as the focus of production shifts from the agricultural to the manufacturing and service sectors<sup>8</sup>—exactly what economists say has to happen in countries such as Pakistan and India if recent growth rates are to be sustained.<sup>9</sup> Even without such a shift, two other factors suggest that energy intensity in South Asia will have to increase nevertheless. One is that, according to the World Bank, unreliable supplies of energy, particularly electricity, are already the most important factor in the high cost of doing business in South Asia compared to other regions. Reducing such costs is one of the essentials of sustained growth.<sup>10</sup> The other is that whether or not economic activity shifts away from the agricultural sector, the pressing need to improve standards of living in the countryside will require a range of specific measures such as rural electrification, improving transportation of crops to markets, better medical care, clean drinking water, and access to cleaner cooking and heating fuels, all of which will further drive up energy requirements.

**Increasing Prices.** A second assumption is that we are never going to see the days of cheap energy again. Energy economists have traditionally assumed that despite a certain amount of volatility, real prices would ultimately tend to gravitate back to the established long-term average. But that paradigm may have shifted. As Daniel Moran and James Russell point out:

*Before 2003 oil traders regarded \$20 per barrel as the trend around which short-term volatility would revolve. Lately the consensus has shifted closer to \$40 or \$50,*

---

Joseph McMillan is a Senior Research Fellow in the Institute for National Strategic Studies at the National Defense University. Comments or questions may be sent to the author at [mcmillanj@ndu.edu](mailto:mcmillanj@ndu.edu).

*an increase of 100 per cent or more in the perceived trend in three years. Should this wave-like process of periodic doubling continue at anything like a comparable pace in the future, it seems certain that questions about the market's ability to revert to historical norms will grow more urgent among the major consumer states.*<sup>11</sup>

Since those words were written, expectations about the long-term price norm have, if anything, moved even higher.

Strategists in the developed countries have generally accepted such an upward trend as a given. What matters from these countries' perspectives is not that prices remain low, but that they be predictable over the long run. Indeed, the prospect of global petroleum production peaking at some undefined point in the future argues that an upward trend in prices would be economically useful because it would gradually suppress demand and encourage the development of alternative energy sources as petroleum resources are used up.<sup>12</sup> One may doubt whether less affluent countries whose future development depends in large part on increased energy consumption can take such a sanguine view of this prospect. Whether we welcome rising prices or not, however, we must assume that they will be a reality for the foreseeable future.

**Increasing Foreign Dependency.** The third assumption is that no South Asian country is going to be able to meet its energy needs entirely from within its own domestic resources. Most of the countries in the region have energy endowments of one kind or another: India has significant coal deposits, Bangladesh has natural gas, and the countries across which the Himalayas and Hindu Kush lie have substantial undeveloped hydroelectric potential. But development of the transportation sector in these countries is going to depend on oil, which no South Asian country has yet discovered in any substantial quantities. In short, none of the South Asian countries possesses the entire range of energy resources needed to meet its development objectives.

The obvious conclusion is that energy trade must be part of the solution to South Asia's continued development. A large share of that trade must clearly come from outside the region. After all, the South Asian countries collectively are now able to meet less than 30 percent of

their combined oil needs from within the region;<sup>13</sup> if increasing demand is to be met at all, most of the new supplies will have to come from the Persian Gulf or beyond. However, in addition to external sources of supply, international energy experts increasingly believe that greater cooperation within South Asia and with adjoining regions would be one of the most effective ways—perhaps an indispensable way—to deal with the regional energy deficit. This emphasis on regional cooperation has caught the attention not only of academic economists but of the official development community as well. Cross-border energy trade is one of the cornerstones of the U.S. Agency for International Development's (USAID's) South Asian Regional Initiative for Energy (SARI/E), as well as a number of other plans for regional development.

The rationale for looking to regional cooperation as the key to meeting South Asia's burgeoning energy needs is laid out in a recent

**greater cooperation within South Asia and with adjoining regions would be one of the most effective ways to deal with the regional energy deficit**

World Bank study that describes such an approach as providing a “logical and rational public policy choice . . . a win-win situation to all the participants.”<sup>14</sup> The study points out that the fundamental economic conditions for trade exist: some countries in and near South Asia (specifically Bhutan, Burma, Iran, Kyrgyzstan, Nepal, Tajikistan, and Turkmenistan) have more fossil or hydropower resources than they can use, while others (Afghanistan, Bangladesh, India, Pakistan, and Sri Lanka) face a widening gap between demand and supply. The potential supplying countries would obviously generate income for national economic development by selling energy, while importing countries such as India and Pakistan would benefit by reducing the constraints on growth currently imposed by inadequate energy supplies. Moreover, the potential importers

must take into account that alternative solutions to greater energy trade, such as investment in additional hydroelectric, fossil-fueled, or nuclear electric generating capacity, would all compete for capital with other equally pressing development needs, such as education and infrastructure.<sup>15</sup>

## Strategic Implications

How, then, among the four prisms through which national security strategists might view the issue of energy security, should we see the evolving energy context in South Asia? While military forces themselves and their supporting industrial base will continue to require energy supplies (the first and second prisms), those concerns pale in comparison to each South Asian country's need for energy in support of national economic development. To the extent that South Asian economies become increasingly integrated with each other and with the wider international economy, South Asian national security strategists also must be increasingly aware of the impact of energy on the global system. Moreover, as India becomes a more important factor in world energy markets, New Delhi will inevitably play a much greater role than in the past on matters of global energy security, even if only politically and not militarily.

It is unlikely that any South Asian country, other than perhaps India, can have a major effect by itself on the health of the international energy system as a whole. However, even if we limit ourselves to viewing South Asian energy security through the third prism described above (that of purely national economic health), there are a number of imperatives for the region's foreign and defense establishments. Indeed, the measures necessary to address the region's energy requirements will in many cases impose new and more challenging demands on the region's diplomats and soldiers.

**Resolving Regional Conflicts.** The most obvious of these demands is overcoming the regional tensions that have stymied trade among the South Asian states in the past. Perhaps self-evident but nevertheless worth emphasizing is that “trade flourishes under peaceful conditions.”<sup>16</sup> The lack of such conditions has affected regional energy trade in two ways. The most obvious is that investors are unwilling to put

large amounts of capital into areas where they perceive a high risk that war might destroy their investments. The other is that animosities and distrust can reinforce the view among political leaders that only self-sufficiency in energy can adequately protect national security. It should be clear that this attitude is no longer tenable. South Asian countries face a stark choice between rapid development and energy self-sufficiency; they cannot have both. It is therefore incumbent on the region's leaders and diplomats to begin setting the conditions for energy cooperation. Ideally, that means resolving border and resource disputes—including the long-running issue of Kashmir. At a minimum, it means that all sides must cease tolerating, let alone supporting, organizations whose purpose is to exacerbate the disputes.

***Bringing Order to Ungoverned Spaces.*** A corollary to reduction of tensions is the need to stabilize historically disorderly parts of the region. In some cases, this means whole countries. One of the principal elements in the World Bank's vision of a region-wide energy market is the construction across Afghanistan of long-distance power transmission lines from Tajikistan and Kyrgyzstan and a gas pipeline from Turkmenistan. It should be self-evident that this vision cannot be realized as long as vast areas of Afghanistan remain subject to disorder. As David Hamon and Arnold Dupuy have observed, "Oil and gas pipelines, by their very nature as static assets, are inviting targets" for terrorists and insurgents.<sup>17</sup> The same could be said for long-distance power lines. Between 1990 and 2005, terrorists mounted more than 330 attacks against oil and gas facilities worldwide, and it is well known that the Iraqi electrical grid has been a major target of insurgent activity since the 2003 invasion.<sup>18</sup>

At the most obvious level, the existence of such threats suggests that the security forces of the countries through which energy flows will find themselves taking on responsibility for securing the energy lines of communication with a much higher priority than has been the case in the past. The implications reach beyond the purely military, however. The kind of regional cooperation necessary to meeting each country's national energy needs will require that Islamabad, New Delhi, and Kabul recognize their mutual interest in a stable Afghanistan in which governmental authorities are capable

of exercising credible control over the national territory, including the most remote areas. To reach the full potential of regional energy cooperation, Kabul would also need to develop the institutional capability to negotiate, monitor, and enforce complex multinational energy contracts, a capability inextricably tied to governance capacity in general.

India's and Pakistan's shared interest in a stable, effectively governed Afghanistan is arguably so strong that it should already be overriding the two countries' historic habit of treating Afghanistan as an arena for bilateral

### **South Asian countries face a stark choice between rapid development and energy self-sufficiency; they cannot have both**

political jousting. If it has not yet reached that level of importance, it will do so in the next few years. Whether New Delhi and Islamabad will recognize the imperative and act on it remains to be seen, but the risks to each of not doing so are clearly growing.

What is true of Afghanistan internationally is equally true of Pakistan domestically. The realization of robust energy trade between Central and South Asia is vitally dependent on the establishment of sustainable, dependable order in the areas through which pipelines and electrical lines must pass. International investors considering whether to put money into such projects will take into account not only market prices and costs of production and transmission, but also the risk that their investments will occasionally be blown to pieces. Whether the risk comes from Pashtun nationalists, religious extremists, or feuding tribes will make little difference to venture capitalists. Moreover, the same concern is likely to apply to proposed projects with Iran. Whatever the official U.S. position on the Iran-Pakistan-India pipeline or the project to supply Iranian electricity to the Gwadar port, either could be derailed if the infrastructure should be threatened by Baloch separatists. In sum, the impact that disorder along Pakistan's frontiers will have on the country's energy security must now

be added to the many other reasons for addressing the chronic instability there.

***Proliferation Concerns.*** No discussion of South Asian energy futures would be complete without some reference to the option of nuclear power. This issue, of course, has achieved greater saliency in the 3 years since the announcement that India's nuclear weapons program notwithstanding, the United States would supply it with civilian nuclear technology. That event, however, did not begin and will not end South Asian interest in nuclear energy as a relatively clean alternative to additional fossil fuel-burning powerplants.

The problem, at least with respect to Pakistan, is that significant development of additional nuclear electricity generating capacity will be an extremely capital-intensive proposition. To some extent, the same is true of other sources of energy. The difference is that provided institutional constraints on investment can be alleviated, profitable nonnuclear energy projects have the potential for attracting outside capital. However, the international community demands a higher standard when it comes to investments involving nuclear technology. Unfortunately, in the view of most Western countries, Pakistan's track record on nuclear proliferation does not inspire the confidence that would be necessary for potential investors and suppliers to make the kind of accommodation that the United States has made with India. A fuller and more transparent accounting of the activities of the A.Q. Khan network would probably help in this regard, but it is hard to say if that alone would resolve the matter sufficiently for nuclear energy to be a plausible alternative to regional energy trade as a solution to Pakistan's future requirements.

***Energy Interdependence and National Security.*** Finally, addressing South Asia's energy needs, particularly if the solution is along the lines currently envisioned by the development community, will require a reorientation in the way South Asian defense and foreign affairs strategists have historically thought about their respective countries' national security.

Willingly accepting dependence on foreign suppliers for such a vital resource as energy is something that goes against the instincts of virtually every national security strategist. The link between energy security and national security has become so strong that even countries



rejecting the idea of war over other issues seem prepared to contemplate the use of military force to ensure energy supplies in extremis.<sup>19</sup> As long ago as the 1950s, major oil consumers considered military responses to the trend toward nationalization of major oil-producing companies in the 1950s and 1960s, not because of principled opposition to socialized ownership of major industries but because of concern that the production policies of state-owned companies might be dictated by political rather than economic motives—as turned out to be the case in 1973.

Such reluctance is understandably heightened if there is a history of tension between supplier and consumer, or if the supplier is seen as unstable or undependable. Thus, the construction of a natural gas pipeline system between the Soviet Union and Western Europe in the 1980s raised fears that were expressed in a 1982 U.S. National Intelligence Estimate:

[The Kremlin] *calculates that the increased future dependence of the West Europeans on Soviet gas deliveries will make them more vulnerable to Soviet coercion and will become a permanent factor in their decision making on East-West issues.*<sup>20</sup>

If energy interdependence did nothing more than place consuming countries at the mercy of their suppliers, the strategist's life would be comparatively simple. For example, one might think at first glance that Pakistan would put itself in a strongly advantageous position if a large share of Indian energy supplies flowed across Pakistan's territory. But experience shows that the strategic dynamic created by interdependent energy markets can be complex and hard to predict. Fears that the Soviet Union would use natural gas shipments for political leverage turned out to be exaggerated because the Kremlin's need for cash for the ailing Soviet economy outweighed any possible value the pipeline may have had as a coercive instrument. On the other hand, seen from Kyiv and Minsk 25 years later, Russia's opportunity to manipulate natural gas supplies for political purposes may be a much more serious issue.

Moreover, depending on the relative political and military power of the partners in an interdependent energy relationship, supplying countries may find themselves the object of greater solicitude about their foreign policy

and domestic politics than they originally bargained for. In 1933, when King Abdul Aziz selected Standard Oil of California in preference to a British company to develop the oil reserves of Saudi Arabia's Eastern Province, he did so in part because he saw the United States as having no imperial agenda in the region.<sup>21</sup> He could not have foreseen that global dependence on Saudi oil would someday make the United States intensely interested not only in the external defense of the kingdom but also in the stability and durability of its domestic institutions. Similarly, just as the construction of power

## the United States should spotlight the energy implications of economic development in its strategic dialogues with India, Pakistan, and Afghanistan

lines and pipelines across Afghanistan to Pakistan would heighten Islamabad's stake in developments in Afghanistan, so the continuation of such lines into India would heighten New Delhi's stake in developments in Pakistan.

## U.S. Policy Implications

How the South Asian countries approach their energy security challenges has important consequences for U.S. interests in the stability and peaceful development of this critical region. If they approach energy security with the zero-sum mentality that has tended to characterize other aspects of regional relations in the past, or if they gravitate to the kind of neomercantilist efforts to secure complete

control of their own energy needs throughout the supply chain that characterized European powers in the early 20<sup>th</sup> century, then the region is in for a renewed cycle of heightened tension and constrained development.

Conversely, decisions by South Asian governments to take a chance on creating the kind of interdependence envisioned by foreign energy experts could lead the region down a much more productive path from both the economic and security points of view. As outlined above, however, successful energy interdependence requires all of the region's governments to undertake significant changes in political-military policy, both as prerequisites to the creation of an operating regional energy system as well as to ensure the system's successful functioning once it is created.

Given its interest in this outcome, the United States should look for opportunities not only to encourage more open energy policies—as USAID is already doing through its SARI/E plan—but also to promote the political and security decisions that are necessary to these policies' success. For example, the United States should encourage regional militaries and domestic security agencies to begin thinking about the implications of having to secure energy transit facilities such as pipelines and power transmission lines across remote and rugged parts of their countries, and urge them to start shaping their capabilities accordingly. Moreover, the United States should spotlight the energy implications of economic development in its strategic dialogues with India, Pakistan, and Afghanistan, emphasizing the linkages between enduring energy security and issues such as resolution of disputed borders and the extension of governance to ungoverned areas.

The establishment among the South Asian countries of reciprocal interests in each other's political and economic welfare clearly holds

The Institute for National Strategic Studies (INSS) is a policy research and strategic gaming organization within the National Defense University (NDU) serving the Department of Defense, its components, and interagency partners. The institute provides senior decisionmakers with timely, objective analysis and gaming events and supports NDU educational programs in the areas of international security affairs and defense studies. Through an active outreach program, including conferences and publications, INSS seeks to promote understanding of emerging strategic challenges and policy options.



The Strategic Forum series presents original research by members of NDU as well as other scholars and specialists in national security affairs from this country and abroad. The opinions, conclusions, and recommendations expressed or implied within are those of the contributors and do not necessarily reflect the views of the Department of Defense or any other agency of the Federal Government. For information on NDU Press visit the Web site at <http://www.ndu.edu/inss/nduhp>. INSS also produces *Joint Force Quarterly* for the Chairman of the Joint Chiefs of Staff; the journal can be accessed at [www.ndupress.edu](http://www.ndupress.edu).

INSTITUTE FOR NATIONAL STRATEGIC STUDIES

James A. Schear  
Director of Research

Patrick M. Cronin  
Director

David H. Gurney  
Director, NDU Press

risks, but also has the potential for great benefit beyond simple energy security for all the countries in the region. The creation of the European Coal and Steel Community in 1951, which brought six recently warring countries together to address common energy challenges, proved to be the first step on the road to today's European Union. Of course, there is no guarantee that energy cooperation by itself will have such remarkable consequences anywhere else. Certainly the idea that interdependence necessarily guarantees peace is readily dispelled by a retrospective examination of the rosy future envisioned for the Euroatlantic world as late as the summer of 1914. Nevertheless, as the World Bank puts it:

[T]he world experience appears to demonstrate that cross border investments and trade and associated business interests help to lower political tensions. Entrepreneurial investment initiatives with imaginative financing and risk mitigation strategies—possibly with the involvement of multilateral financing institutions in some projects as neutral parties to help build the confidence and mitigate risks—could help to start and strengthen the virtuous circle of trade growth and regional peace.<sup>22</sup>

## Notes

<sup>1</sup> See, for example, Bernard D. Cole, "Oil for the Lamps of China"—*Beijing's 21<sup>st</sup>-Century Search for Energy*, McNair Paper 67 (Washington, DC: National Defense University Press, 2003).

<sup>2</sup> International Energy Agency (IEA), *World Energy Outlook 2007: China and India Insights* (Paris: Organisation for Economic Co-operation and Development/IEA, 2007), 3, 42, 73.

<sup>3</sup> Erik Dahl, "Naval Innovation: From Coal to Oil," *Joint Force Quarterly* 27 (Winter 2000/2001), 52, available at <[www.ndu.edu/inss/Press/jfq\\_pages/1327.pdf](http://www.ndu.edu/inss/Press/jfq_pages/1327.pdf)>; Daniel Yergin, *The Prize: The Epic Quest for Oil, Money, and Power* (New York: Free Press, 2003), 159–164.

<sup>4</sup> Yergin, 422–424.

<sup>5</sup> *Ibid.*, 634–636. Yergin points out that "for the developed countries of the industrial West, the sudden hike in oil prices brought profound dislocations," but also that "the group that suffered most from the price increases were those developing countries that were not fortunate in having been blessed with oil" (635).

<sup>6</sup> House Armed Services Committee Subcommittee on Investigations, *Department of Defense Petroleum Requirements and Supplies* (Washington: U.S. Government Printing Office, 1980).

<sup>7</sup> IEA, 3, 42, 73.

<sup>8</sup> David Newberry, "Power Sector Reform, Private Investment, and Regional Cooperation," in *South Asia: Growth and Regional Integration*, ed. Sadiq Ahmed and Ejaz Ghani (Washington, DC: International Bank for Reconstruction and Development/World Bank, 2007), 144.

<sup>9</sup> Sadiq Ahmed and Ejaz Ghani, "South Asia's Growth and Regional Integration: An Overview," in *South Asia: Growth and Regional Integration*, 10.

<sup>10</sup> *Ibid.*, 5.

<sup>11</sup> Daniel Moran and James A. Russell, "The Militarization of Energy Security," *Strategic Insights* 7, no. 1 (February 2008), available at <[www.ccc.nps.navy.mil/si/2008/Feb/moranFeb08.pdf](http://www.ccc.nps.navy.mil/si/2008/Feb/moranFeb08.pdf)>.

<sup>12</sup> *Ibid.*

<sup>13</sup> U.S. Department of Energy, Energy Information Administration, Country Energy Profiles, available at <[tonto.eia.doe.gov/country/index.cfm](http://tonto.eia.doe.gov/country/index.cfm)>.

<sup>14</sup> Venkataraman Krishnaswamy, *Potential and Prospects for Regional Energy Trade in the South Asia Region* (Washington, DC: World Bank, 2007), 1.

<sup>15</sup> *Ibid.*, 1–2.

<sup>16</sup> *Ibid.*, 11.

<sup>17</sup> David W. Hamon and Arnold C. Dupuy, "Security of Energy: The Conflict after Next?" *Strategic Insights* 7, no. 1 (February 2008), available at <[www.ccc.nps.navy.mil/si/2008/Feb/hamonFeb08.pdf](http://www.ccc.nps.navy.mil/si/2008/Feb/hamonFeb08.pdf)>.

<sup>18</sup> Moran and Russell.

<sup>19</sup> *Ibid.*

<sup>20</sup> Quoted in Roman Kupchinsky, "Analysis: The Recurring Fear of Russian Gas Dependency," Radio Free Europe/Radio Liberty, May 11, 2006, available at <[www.rferl.org/featuresarticle/2006/05/f368d0af-7d18-4e8a-baa1-96e62b911813.html](http://www.rferl.org/featuresarticle/2006/05/f368d0af-7d18-4e8a-baa1-96e62b911813.html)>.

<sup>21</sup> Rachel Bronson, *Thicker Than Oil: America's Uneasy Partnership with Saudi Arabia* (Oxford: Oxford University Press, 2006) 17.

<sup>22</sup> Krishnaswamy, 14.

## Other recent titles from **NDU Press**

### **The Caucasus: Charting a New Course**

*Eugene B. Rumer*

(Occasional Paper 6, forthcoming)

### **The Role of Medical Diplomacy in Stabilizing Afghanistan**

*Donald F. Thompson*

(Center for Technology and National Security Policy, Defense Horizons 63, May 2008)

### **International Partnerships to Combat Weapons of Mass Destruction**

*Paul I. Bernstein*

(Center for the Study of Weapons of Mass Destruction, Occasional Paper 6, May 2008)

For on-line access to **NDU Press** publications,  
go to: [ndupress.ndu.edu](http://ndupress.ndu.edu)

### **Choosing War: The Decision to Invade Iraq and Its Aftermath**

*Joseph J. Collins*

(Occasional Paper 5, April 2008)

### **China's Rising Influence in Asia: Implications for U.S. Policy**

*Ellen L. Frost, James J. Przystup, and  
Phillip C. Saunders*

(Strategic Forum No. 231, April 2008)