

Finding Common Ground: Energy, Security and Cooperation in the South China Sea

By Will Rogers

Global energy trends are increasing demands for potential hydrocarbons in the South China Sea. As the global economy recovers from worldwide recession, demand for energy is steadily picking up speed, particularly among emerging economies in South and East Asia. Production is expected to keep pace, with just enough to satisfy global demand. Many of these countries will therefore want to develop new energy sources to ensure access to the fuel they need to promote their economic growth. Meanwhile, perennial instability in the Middle East and North Africa is encouraging these countries to diversify their supplies of oil. Energy resources from the South China Sea may be able to help these countries meet both objectives.

India and China are particularly interested in these energy resources. Energy development is an increasingly important element of India's "Look East Policy," where officials in New Delhi hope to assuage their energy vulnerabilities elsewhere by tapping into resources to its east. Meanwhile, China's technological ability to explore for and drill in deep waters will continue to develop apace, speeding up Beijing's ability to develop oil and natural gas reserves in disputed blocs. Together, China's and India's overlapping interests in the potential energy wealth of the South China Sea could foster suspicions and misperceptions, exacerbate tensions and possibly even escalate to conflict if left unaddressed.

This bulletin examines how these emerging trends may create risks for regional security. It shows the global demand for secure access

About this publication

The bulletin series provides timely analysis and information on security issues in the East and South China Seas. For further information, please contact info@cnas.org.

to energy as a driver of India's and China's quest for oil and gas in the South China Sea. It then explores India's growing involvement in energy development in the South China Sea and China's growing technological edge in deepwater drilling. It concludes by recommending ways that U.S. policymakers can help diffuse tensions and promote cooperation around energy in the region.

Energy in Context: South China Sea Energy Development as a Microcosm of Global Trends

The inveterate drive for the South China Sea's hydrocarbon wealth is influenced in part by global demand for liquid fuels among the world's emerging economies. While international policies promoting energy efficiency and higher oil prices have slowed the demand for oil and other liquid fuels in recent years, emerging economies –

The growing demand for liquid fuels will leave little spare surplus in the international market to help buffer against demand spikes, and supply shocks will also remain a central feature of the global energy market.

India, China, Middle Eastern states and others – are expected to consume more energy than developed economies by the early 2020s.¹ As a result, global demand for oil and other liquid fuels could reach between 100 and 110 million barrels a day (mbd) by 2035, from about 87 mbd in 2011.²

Global liquid fuel production is expected to grow as well, helping to satisfy most of the increased demand. Reserve-to-production estimates for conventional onshore and offshore oil and gas deposits continue to change dramatically as technology and high oil prices allow states to exploit existing reserves for longer than initially estimated. More importantly, production of

unconventional oil and natural gas – from shale rock and oil sands in North America to deep sea deposits in South America and East Africa – will add to the global oil supply. As a result, production of oil and other fossil fuel liquids is expected to grow just short of total demand – about 97 mbd – by 2035. Refinery gains and biofuel production are projected to satisfy the remaining demand.³

Still, the global oil market will remain tight and susceptible to demand and supply shocks. The growing demand for liquid fuels will leave little spare surplus in the international market to help buffer against demand spikes, and supply shocks will also remain a central feature of the global energy market. Despite increased oil production outside of the Middle East and North Africa, those regions still supplied more than 35 percent of global oil in 2011, with most of the oil

flowing to consumers in Asia.⁴ Moreover, by 2035, 90 percent of the energy produced in the Middle East and North Africa will be consumed by countries in Asia.⁵ As a result, regional instability resulting from the Arab Spring and the specter of a crisis between the west and Iran has exacerbated concerns among some Asian countries that they will not be able to safely meet their long-term energy needs.⁶

China and India are the two fastest growing world economies and are particularly vulnerable to energy disruptions. Before the global financial crisis, Indian and Chinese economic growth contributed to unprecedented demand for oil and gas – adding nearly 5 mbd to world oil demand between 2003 and 2006.⁷ While the worldwide recession has slowed their demand for energy, renewed economic vigor will increase their fuel consumption over the next two decades. According to a recent report from the National Intelligence Council called *Global Trends 2030*, “World Bank modeling suggests that together China and India will serve as nearly twice the engine for growth as of the United States and the euro zone combined by 2025.”⁸ This economic growth will have an outsized impact on global energy demand as well. A January 2012 British Petroleum forecast projected that Indian and Chinese demand for liquid fuels will add 11.5 mbd to global demand by 2030.⁹

Indian and Chinese demand may ebb and flow for a number of reasons. For example, the growing chorus of political pressure in China demanding new environmental standards could lead to pollution controls in Beijing and elsewhere that curb the country’s energy growth. Meanwhile, an overhaul of India’s electric grid that reduces its vulnerabilities to cascading blackouts in New Delhi and other parts of the country may also lead to improved efficiency and help check energy growth. Yet, with the vulnerabilities stemming from overwhelming reliance on the Middle East and North Africa, both countries will continue to look for more assured access to energy to fuel their economic growth.

The South China Sea offers the promise of more assured access to energy for emerging economies in the Asia Pacific, especially India and China. Of course, estimates of the region’s energy potential vary widely. A recent U.S. Energy Information Administration report projected that the region could hold up to 11 billion barrels of proved (recoverable) oil.¹⁰ In contrast, a Chinese estimate projected that the region’s hydrocarbon wealth could be as high as 125 billion barrels of oil,¹¹ of which 10 percent may be technically recoverable.¹² Although the uneven estimates have contributed to considerable uncertainty about the South China Sea’s true energy wealth, some states appear to be placing a bet that the region could be a “second Persian Gulf,” or that at the very least the region holds enough petroleum to help

these states diversify their energy sources.¹³ And this bet helps explain why both China and India are increasingly active in the South China Sea.

India: Energy Development and the “Look East Policy”

Analysts and policymakers usually focus on how natural resources shape the interests and behavior of the claimant states that ring the South China Sea (including China, Vietnam and the Philippines) Yet, other major players outside the region also have interests in the region’s natural resource wealth, and their actions will also shape regional dynamics. These states – from India, Japan and Australia to the United States and European Union – can help determine the role of international law and institutions, tilting the balance of behavior in the region toward cooperation. India may be particularly influential because of its concerns about access to energy.

Energy development has become an increasingly important feature of India’s eastward engagement. Indeed, the state’s decades-old “Look East Policy,” through which India actively seeks economic integration with countries in East and Southeast Asia, provides New Delhi with an appropriate framework for energy cooperation with countries around the South China Sea.

India’s energy development in the East comes largely out of necessity. Upheaval in the Middle East and North Africa, and a looming confrontation between the West and Iran – New Delhi’s stalwart oil ally, from whom India continues to purchase oil from despite international sanctions – are exacerbating India’s energy security dilemmas to its West. (India imports more than 60 percent of its oil from the Middle East where it is vulnerable to disruptions in the Strait of Hormuz and elsewhere.¹⁴) Moreover, India’s efforts to diversify its energy resources with western pipelines have run aground. Planned natural gas pipeline projects from Iran and Turkmenistan are continually plagued by security concerns with shipping gas across volatile transit states.¹⁵ Two such projects have proven particularly problematic: the Trans-Afghanistan Pipeline spearheaded by the Asian Development Bank would transport natural gas from Turkmenistan’s Dowlatabad natural gas fields across Afghanistan and Pakistan to India; and the Iran-Pakistan-India pipeline would carry natural gas from Iran’s South Pars gas field across Pakistan’s insurgent-riddled Baluchistan to India.

India, like China, appears to be making some bets that the South China Sea’s energy wealth could assuage its energy risks elsewhere.¹⁶ Consequently, New Delhi appears willing to explore in areas that abut Beijing’s claims in the South China Sea in order to secure

commercial access to the region's oil and natural gas deposits, tying its energy security goals with its strategic engagement eastward.

In particular, India has been pursuing energy exploration with Vietnam that has exacerbated tensions with China. Despite Beijing's insistence that outside states remain neutral in the South China Sea dispute, India's Foreign Minister SM Krishna announced in September 2011 that the country's offshore energy firm, Oil and Natural Gas Corporation (ONGC) Videsh, would pursue a joint venture with Vietnam's state-owned Petro Vietnam to explore for oil and natural gas in offshore blocs claimed by Vietnam but disputed by China.¹⁷ In December 2012, tensions escalated after a Chinese fishing boat cut the cables of a Vietnamese survey vessels exploring for energy in these disputed blocs. In response to the episode, India's Navy Chief Admiral DK Joshi said that the Indian government was prepared to send naval ships to the South China Sea to protect its energy interests.¹⁸ These incidents are likely to continue as energy development becomes an increasingly central component of the country's "Look East Policy."

China: Deepwater Technology May Speed Up Energy Development

Offshore energy development in the South China Sea has often been limited to shallower waters, where less-advanced national offshore oil companies and others have competed for exploratory and drilling rights. Yet beginning in the mid-2000s, that final frontier – drilling to depths beyond 1,500 meters, and even further beneath the seabed – became a common area for energy development, with major western companies leading the charge. Since then, technological developments have steadily improved the full spectrum of deepwater offshore oil exploitation, from exploration to extraction.¹⁹

But the movement of oil development further offshore as technology develops has also raised concerns among South China Sea claimants. They see the ability to drill in deepwater as a key way to tap into the region's potential energy wealth. According to Chinese estimates, for example, approximately 70 percent of the region's oil and natural gas lies beneath 1.54 million square kilometers of deepwater real estate.²⁰ Surveys for those parts of the South China Sea have been few and far between, in part because regional states have to rely on major international oil companies who have the technology needed to adequately assess the reserves of oil and gas beneath the seabed. But with the tools and techniques necessary to exploit deepwater hydrocarbons, claimants – including China – would be able to acquire commercial rights to the sea's energy wealth before any other country is able to make a claim.

Countries have adopted several approaches to try to access the region's deepwater energy deposits. Some countries in the region have crafted joint ventures with more advanced oil companies capable of drilling in deepwater. Vietnam's state oil company, for example, has signed agreements with Italy's Eni SpA and Texas-based Exxon Mobil, in addition to its burgeoning partnerships with India's ONGC Videsh.²¹ Other countries have attempted to develop the deepwater platforms and acquire the technology and technical know-how necessary to drill for oil and gas unilaterally.

China, in particular, is strengthening its technological edge in deepwater drilling which may soon enable it to survey, explore and drill in blocs containing unknown deposits of oil and natural gas in the South China Sea. In May 2012, for example, the state-run

When China does gain the ability to develop energy in deepwater, the South China Sea imbroglio will become even more complex.

China National Offshore Oil Company (CNOOC) began operating the country's first deepwater drilling platform, enabling it to move away from solely shallow water operations. Besides developing the platform, CNOOC has also tried to acquire the technical know-how to safely drill in deepwater. In December 2012, for example, the Canadian government approved a \$15.1 billion deal that would pave the way for CNOOC to acquire the Calgary-based energy giant, Nexen Inc., including

the company's high-tech ultra-deepwater drilling technology and techniques.²² However, CNOOC still needs approval from the U.S. government before it can acquire Nexen's Gulf of Mexico assets, which include the company's high-tech drilling equipment. U.S. lawmakers blocked a similar deal in 2005 when CNOOC attempted to acquire Unocal Corporation, which also operated in the Gulf of Mexico.²³ Without those assets, the company's efforts to acquire the technology necessary to exploit the South China Sea's deepwater wealth could fall short.

When China does gain the ability to develop energy in deepwater, the South China Sea imbroglio will become even more complex. For one, CNOOC might no longer need to auction blocs to foreign companies to develop deepwater resources, relying instead on its own equipment and tools to develop the potential hydrocarbons. This is a particular concern for blocs of the South China Sea that Vietnam claims to be within its 200-nautical mile exclusive economic zone. In 2012, for example, CNOOC offered new blocs for energy development that Vietnam had contracted to India's ONGC Videsh, Russia's

state-owned Gazprom and ExxonMobil.²⁴ In addition, it could give China significant leverage in making unilateral claims to resources it discovers in other blocs, undermining efforts to promote joint or multilateral development in the region.

China sees its ability to develop deepwater resources on its own as essential to securing claims over those resources and buttressing its broader strategic position in the South China Sea. When CNOOC launched its first deepwater drilling platform in 2012, the company's chairman, Wang Yilin, made clear that "Large-scale deep-water rigs are our mobile national territory and a strategic weapon."²⁵ As a result, China will continue to press ahead and develop the capability to explore and drill in the South China Sea's deepwater energy resources, which will likely exacerbate regional tensions and increase the potential for escalation. This may perpetuate regional anxiety shared by countries concerned with Chinese ambitions to make unilateral claims to the region's entire energy wealth. These countries may choose to respond by pushing back against China's claims – by sabotaging drilling platforms or survey cables, for example – which could lead to a stronger Chinese response, particularly from its China Marine Surveillance fleet.²⁶

Setting the Agenda for Energy Cooperation in the South China Sea

Given the potential for conflict escalation, U.S. policymakers should look for opportunities to help sculpt an agenda that tips the balance of behavior in the region away from conflict and toward cooperation, especially on energy issues. While American officials will need to make every effort to remain neutral on sovereignty disputes in the South China Sea, U.S. policymakers should not shy away from opportunities to encourage allies and partners to adopt approaches that promise to help manage energy competition in the region. Two key opportunities include:

1. Promoting Indo-Sino discussions around energy security. U.S. policymakers should emphasize to leaders in New Delhi and Beijing the importance of promoting a dialogue around energy that highlights their shared challenges with securing access to oil and natural gas. Given that India and China share many overlapping concerns about sustainable access to energy resources, leaders in these countries should use energy as an opportunity to cooperate.

China and India have already initiated a Strategic Economic Dialogue where their leaders can communicate and coordinate around economic development, including energy efficiency and alternative technologies. This dialogue has already been convened twice and U.S. leaders should encourage it to continue. But at the same time, U.S.

officials should also encourage them to extend energy discussions to other venues, including more traditional security forums like the ASEAN Regional Forum and the East Asia Summit. Doing so would reinforce the notion that cooperation around energy can achieve shared economic and national security goals.

Where possible, the United States should also use its limited agenda-setting power to integrate energy into key discussions with other regional states. Conversations could begin informally on the sidelines of the G20, the ASEAN Regional Forum and the East Asia Summit. These informal discussions could lay the foundation for a more formal dialogue in the near future.

Finally, the United States should continue to promote the development of a China-India-U.S. trilateral dialogue mechanism. Indian and U.S. officials have already approached China, and Chinese officials have not dismissed the proposal out of hand. U.S. officials could suggest that the dialogue begin narrowly around energy, which could help bring all three countries to the table around a common challenge – sustainable access to energy. U.S. officials could then gradually expand the agenda to include more sensitive issues, including other maritime and cyber security issues.

2. Promote Joint Energy Development in Disputed Areas. Not surprisingly, sovereignty disputes have inhibited joint energy development in the South China Sea. This is particularly true in highly disputed zones, where joint energy development in these areas can be viewed as validating another country's maritime jurisdiction or undermining one's own. China, for example, bases its maritime claim to the entire South China Sea based on a historical "nine-dashed line" that encompasses the entire region.²⁷ China therefore sees any unilateral energy development by other countries as a challenge to its territorial claims, even when this development occurs in areas that are generally recognized as international waters (lying beyond any country's 200-nautical-mile exclusive economic zone). Conversely, when countries approach China with interest in jointly developing in these areas, Beijing offers this as evidence that other countries affirm China's territorial claims, which ultimately derail these efforts.²⁸ As a result, it has been difficult to encourage countries to put aside sovereignty disputes in pursuit of joint energy development.

Yet many countries, including China, have more to gain than lose by pursuing joint energy development. First, joint development would help Beijing address its energy vulnerabilities sooner rather than later. Offshore drilling projects take years to develop. If China is determined to wait for a dispute settlement validating its sovereign

claims to the entire region - which will likely never come - it will not be able to reap the benefits of the South China Sea's energy resources in the near term. A 50 percent stake to oil from a given bloc tomorrow is still better than a 100 percent stake to oil that may never be possible to attain. Second, although China has made great strides in developing deepwater technology, its practices remain untested. Joint development with more seasoned companies would reinforce good safety standards and prevent an environmental catastrophe akin to the 2010 Deepwater Horizon incident in the Gulf of Mexico. Such a disaster would have a devastating toll on the region's fisheries and marine habitat that China and others rely on for economic and human development.

The United States should not take the lead in promoting joint energy development as the rule of the road for energy extraction in the South China Sea's disputed areas, but it should strongly reinforce this approach. Meanwhile, leaders in Southeast Asia should promote joint energy development in discussions at ASEAN. While the challenge of developing a resource-sharing formula that is agreeable to all claimants remains immense, ASEAN leaders could nevertheless begin by integrating joint energy development as an objective in a Regional Code of Conduct for the South China Sea. While not all claimants accept this kind of declaration as binding, it would nevertheless reinforce joint energy development as a regional norm in these disputed areas.

Conclusion

Access to energy will continue to play a prominent role in shaping international relations in the South China Sea for the foreseeable future. India's interest in energy as an element of its "Look East Policy" and China's continued quest to develop the technological capability to drill for oil and natural gas in deepwater are two trends that will continue to shape the complex web of interaction between states in the year ahead. As U.S. policymakers look for opportunities to promote cooperation over competition, understanding these emerging trends and their role in the broader South China Sea dispute will be essential to diffusing tensions and avoiding conflict.

ENDNOTES

1. "World Energy Outlook 2012" (International Energy Agency, 2012), 88.
2. Ibid.
3. Ibid., 102.
4. U.S. Energy Information Administration, "International Energy Statistics: Middle East and North Africa," retrieved January 12, 2013, <http://www.eia.gov/cfapps/ipdbproject/iedindex3.cfm?tid=5&pid=53&aid=1&cid=AG,BA,EG,IR,IJ,IS,JO,KU,LE,LY,MO,MU,QA,SA,SU,SY,TS,TC,YM,&syid=2011&eyid=2011&unit=TBD>.
5. Peg Mackey, "U.S. to overtake Saudi as top oil producer: IEA," Reuters (November 12, 2012), <http://www.reuters.com/article/2012/11/12/us-iea-oil-report-idUSBRE8AB0IQ20121112>.
6. For a deeper examination of these long-term energy needs, see Will Rogers, "The Role of Natural Resources in the South China Sea," in *Cooperation from Strength: The United States, China and the South China Sea*, Patrick Cronin, ed. (Center for a New American Security, January 2012).
7. Daniel Yergin, *The Quest: Energy, Security and the Remaking of the Modern World* (New York: The Penguin Press, 2011), 162.
8. National Intelligence Council, *Global Trends 2030: Alternative Worlds*, NIC 2012-001 (December 2012), 45.
9. "BP Energy Outlook 2030" (British Petroleum, January 2012), 23.
10. Energy Information Administration, "South China Sea," Country Analysis Brief (February 2013), 2, http://www.eia.gov/countries/analysisbriefs/South_China_Sea/south_china_sea.pdf.
11. Ibid.
12. Experts point out that Chinese estimates for the South China Sea typically do not account for the industry standard estimate of technically recoverable oil and natural gas that can be extracted from a proven petroleum reserve, which is about 10 percent. For more on this, see Clive Schofield, Ian Townsend-Gault, Hasjim Djalal, Ian Storey, Meredith Millers and Tim Cook, "From Disputed Waters to Seas of Opportunity," Special Report No. 30 (National Bureau of Asian Research, July 2011), 12.
13. Liz Neisloss, "U.S. defense secretary announces new strategy with Asia," CNN.com, June 2, 2012, http://articles.cnn.com/2012-06-02/us/us_panetta-asia_1_defense-secretary-leon-panetta-asia-south-china-sea/2?_s=PM:US.
14. Energy Information Administration, "India," Country Analysis Brief (November 2011), <http://www.eia.gov/EMEU/cabs/India/pdf.pdf>.
15. See, for example, John Jack Rooney, "The Baloch Insurgency and 21st Century Asian Energy Security," *New Presence: The Prague Journal of Central European Affairs*, 12 no. 3 (Autumn 2010), 81-87.
16. Energy Information Administration, "South China Sea," 2.
17. Sachin Parashar, "Undeterred India to hunt for oil in South China Sea," *The Times of India*, September 17, 2011, http://articles.timesofindia.indiatimes.com/2011-09-17/india/30168478_1_respect-and-support-countries-ongc-videsh-pham-binh-minh.
18. Ross Colvin, "Indian navy prepared to deploy to South China Sea," Reuters (December 3, 2012), <http://in.reuters.com/article/2012/12/03/south-china-sea-india-navy-oil-ongc-idINDEE8B209U20121203>.
19. See John T. Cuddington and Diana L. Moss, "Technological Change, Depletion, and the U.S. Petroleum Industry," *American Economic Review*, 91 no. 4 (September 2001), 1135-1136. According to the authors, "Technological advances such as three-dimensional seismic techniques, polycrystalline diamond compact drill bits, horizontal drilling, and offshore platforms capable of operating in hostile, deep-water environments are widely acknowledged to have had significant impact on [offshore oil exploitation]."
20. "China begins deep-water drilling in South China Sea," Xinhua, May 9, 2012, http://news.xinhuanet.com/english/china/2012-05/09/c_131576610.htm.
21. Brian Spegele and Wayne Ma, "For China Boss, Deep-Water Rigs Are a 'Strategic Weapon,'" *The Wall Street Journal*, August 30, 2012.
22. Charlie Zhu and Michael Erman, "Analysis: Nexen's U.S. Gulf oilfield key to China's deepwater ambitions," Reuters, December 13, 2012.
23. Loretta Ng and Wing-Gar Cheng, "Cnooc Drops \$18.5 Bln Unocal Bid Amid U.S. Opposition," Bloomberg.com, August 2, 2005, <http://www>.

FEBRUARY 12, 2013

CNAS.ORG

bloomberg.com/apps/news?pid=newsarchive&sid=ah3uSZmkLLBI&refer=home.

24. Taylor Fravel, "Overlapping Claims and Major Power," TaylorFravel.com, June 28, 2012, <http://taylorfravel.com/2012/06/overlapping-claims-and-major-powers/>.

25. Spiegel and Ma, "For China's Boss, Deep-Water Rigs Are a 'Strategic Weapon.'"

26. See Zachary M. Hosford and Ely Ratner, "The Challenge of Chinese Revisionism: The Expanding Role of China's Non-Military Maritime Vessels," East and South China Seas Bulletin 8 (Center for a New American Security, February 1, 2013).

27. See Peter Dutton, "Cracks in the Foundation: International Law and Instability in the South China Sea," in *Cooperation from Strength: The United States, China and the South China Sea*, in Cronin, ed.

28. Rodger Baker and Zhixing Zhang, "The Paradox of China's Naval Strategy," Stratfor, July 17, 2012.

About the Center for a New American Security



The mission of the Center for a New American Security (CNAS) is to develop strong, pragmatic and principled national security and defense policies. Building on the expertise and experience of its staff and advisors, CNAS engages policymakers, experts and the public with innovative, fact-based research, ideas and analysis to shape and elevate the national security debate. A key part of our mission is to inform and prepare the national security leaders of today and tomorrow.

CNAS is located in Washington, and was established in February 2007 by co-founders Kurt M. Campbell and Michèle A. Flournoy. CNAS is a 501(c)3 tax-exempt nonprofit organization. Its research is independent and non-partisan. CNAS does not take institutional positions on policy issues. The views expressed in this report are those of the authors and do not represent the official policy or position of the Department of Defense or the U.S. government.

© 2013 Center for a New American Security. All rights reserved.

Center for a New American Security
1301 Pennsylvania Avenue, NW, Suite 403
Washington, DC 20004

TEL 202.457.9400
FAX 202.457.9401
EMAIL info@cnas.org
www.cnas.org