Energy Security Lessons of the Egypt Crisis

by Simon Henderson **(/experts/simon-henderson)** , Michael Singh **(/experts/michael-singh)**

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ABOUT THE AUTHORS

Simon Henderson (/experts/simon-henderson)

Simon Henderson is the Baker fellow and director of the Bernstein Program on Gulf and Energy Policy at The Washington Institute, specializing in energy matters and the conservative Arab states of the Persian Gulf.

Michael Singh (/experts/michael-singh)

Michael Singh is the Lane-Swig Senior Fellow and managing director at The Washington Institute.

Brief Analysis

The political turmoil in Egypt has prompted renewed concerns about the security of oil and gas supplies from the Middle East. The country's proximity to two key chokepoints -- the Suez Canal and the Bab al-Mandab Strait between the Red Sea and the Gulf of Aden -- is significant. Yet concerns about these routes highlight the vulnerability of an even more critical energy chokepoint: the Strait of Hormuz, the only exit from the Persian Gulf. The Egyptian crisis should serve as an opportunity to reexamine contingency plans for avoiding or limiting energy supply disruptions. Whether stemming from political upheaval, direct interference by Iran, or other factors, such disruptions could have a devastating effect on the global economy.

Gas Exports Hit by Sabotage

So far, the crisis has resulted in only one energy disruption: the February 5 sabotage of a pumping station in the Sinai Peninsula, which cut off natural gas supplies to Israel and Jordan. Both countries use this gas to generate electricity, and Jordan is particularly dependent on it. Egypt is expected to restore the flow shortly; in the meantime, Amman will have to rely on limited stocks of fuel oil and perhaps seek additional supplies from Iraq or Saudi Arabia. For its part, Israel can turn to fuel oil or coal stocks, though the incident will likely prompt early exploitation of recently discovered offshore gas reserves in the Mediterranean.

In addition to the Sinai line, Egypt exports liquefied natural gas (LNG) by ship. It also uses its large oil refinery capacity to process and re-export foreign crudes, although it is no longer an oil exporter itself. Its two main energy transit routes -- the Suez Canal and the SuMed oil pipeline from the Gulf of Suez to the Mediterranean -- remain open, but their relative importance has declined as Asian energy demand has increased at a faster rate than European and North American demand.

Given the glut of LNG shipments worldwide, any disruptions resulting from the Egyptian crisis (e.g., labor strikes)

would have relatively little impact. But closure of the Suez Canal, either by blockage or government edict, would force ships to travel around Africa, adding to the length and cost of their voyage. Indeed, the largest oil and gas tankers already have to take this route due to the canal's longstanding limitations.

Strait of Hormuz Is Crucial

In 2010, the volume of oil transiting Egypt via the Suez Canal and SuMed pipeline was about 2 million barrels per day, or roughly 5 percent of global seaborne oil trade. By comparison, the figure for the Strait of Hormuz was approximately 15.5 million barrels. Although the strait is less constricted -- its east- and westbound shipping lanes are each two miles wide compared to the narrow and shallow Suez -- it is the only maritime option for exporting crude oil from Persian Gulf countries.

During the 1980-1988 Iran-Iraq War, Iranian military action halted Iraqi oil exports via the Gulf and forced Baghdad to build a pipeline across Saudi Arabia. Yet Riyadh has since taken over the pipeline and converted it to part of its domestic gas distribution system. Therefore, aside from an Iraqi pipeline across Turkey to the Mediterranean, Baghdad is without an alternative if Iran once again closes off the Gulf option.

As for the Saudis, they could channel two-thirds of their exports via a pipeline from the kingdom's Gulf oil fields to ports on the Red Sea if the need arose. Yet the Saudi pipeline to the Lebanese Mediterranean coast -- a route that would be useful for supplying energy-strapped Jordan, among other benefits -- has been closed since 1990. The only new overland route circumventing the Strait of Hormuz lies in the United Arab Emirates (UAE), where a 230-mile pipeline built with Chinese help is scheduled for completion by August. Although it will have the capacity to carry more than half of the UAE's exports past the Hormuz chokepoint, its route and loading terminals will still be vulnerable to sabotage or air attack.

U.S. Policy Considerations

The United States obtains more than half its oil imports from the Western hemisphere, principally Canada, Venezuela, and Mexico; only 17 percent of its imports come from the Persian Gulf. The significance of the Strait of Hormuz is therefore more profound for Asian markets such as China, Japan, India, and South Korea, which overwhelmingly depend on Gulf supplies. The U.S naval presence in the Gulf contributes to the security of these energy flows, whether by combating piracy, supporting residual ground forces in Iraq, backing Arab allies apprehensive of Iran, or supporting coalition forces in Afghanistan (much of whose air support comes from U.S. aircraft carriers operating off the Pakistani coast). This situation stands in sharp contrast to the period before Iran's 1979 Islamic Revolution -- a time when all the Gulf oil producers were at peace and allied with Washington, and the only permanent U.S. military presence in the Gulf was a headquarters ship anchored off Bahrain.

Many have suggested that the proper solution to this burdensome state of affairs is to reduce or eliminate U.S. dependence on imported oil by increasing domestic production or, more ambitiously, substituting alternative forms of energy. Although this is a fine long-term aspiration, it will not dissipate Middle East energy security concerns in the foreseeable future. On February 10, U.S. Energy Information Administration (EIA) chief Richard Newell told a congressional committee that American dependence on oil imports -- which stood at 60 percent in 2005 and fell to 52 percent in 2009 -- was nevertheless projected to remain as high as 42 percent in 2035. EIA forecasts, which are intended to provide independent statistics and analysis for the U.S. government and businesses, already include generous assumptions about gains in energy efficiencies and renewable supplies.

Even as the United States reduces its own dependence on imported oil, a shock in the Middle East would still affect the price of domestically produced oil, as it is a globally traded commodity. And expanded use of alternative energy sources would still leave America vulnerable to swings in the prices of other goods that use oil as an input (e.g., food and many manufactured goods), as well as to other effects arising from economic shocks in Middle Eastern

countries.

In short, no domestic energy policy choices will eclipse the need to safeguard Middle Eastern oil supplies in the near future, even if the United States is not the buyer of those supplies. Accordingly, Washington should consider the following broad lines of action:

- *Bolster international strategic reserves.* Although the United States and many industrialized countries have sizeable strategic petroleum reserves, smaller economies may be more vulnerable. For example, Jordan had only thirty days of diesel and heavy oil reserves at the time of the February 5 Sinai pipeline attack and was therefore heavily affected by disruption in gas supplies.
- *Strengthen options to bypass the Strait of Hormuz.* Although U.S. military officials have repeatedly expressed their willingness and ability to keep the strait open in the event of Iranian interference, developing contingency plans for a potential closure is still the most prudent course. The United States should focus on increasing the capacity of existing bypass routes such as the Saudi East-West pipeline. In the longer term, it should encourage or sponsor the construction of new pipelines or interconnection of existing networks (e.g., a new line across Saudi Arabia or Jordan to the Red Sea, which could carry Iraqi and Kuwaiti exports).
- *Invest even more in critical energy infrastructure protection.* The primary security threats in the region are asymmetric, such as transnational terrorist groups and Iran's growing arsenal of missiles. The United States should shift a portion of its security assistance away from conventional military armaments and training toward critical energy infrastructure protection and training, including cybersecurity for key facilities and networks. For several years, the United States has been helping the Saudis on these fronts; the UAE and Kuwait are also building up their capacity in these areas. Washington should expand these efforts to ensure comprehensive regional coverage, cooperation between states, and the implementation of best practices.

So far, the Egyptian crisis has not spurred the sort of oil disruptions that occurred in 1956 (when Cairo blocked the Suez Canal to protest British and French attempts to seize it) or between 1967 and 1975 (when Israel occupied the Sinai). But it should serve as a potent reminder of both the vulnerability of Persian Gulf oil supplies and the measures that need to be taken to improve global energy security.

Simon Henderson is the Baker fellow and director of the Gulf and Energy Policy Program at The Washington Institute. Michael Singh is a visiting fellow at the Institute and a former senior director for Middle East affairs at the National Security Council. ❖

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