



RESOURCE SECURITY WATCH

The American Foreign Policy Council's Review of
Changes to the Global Strategic Environment

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Related Categories: Democracy and Governance; Energy Security; Human Rights and Humanitarian Issues; International Economics and Trade; Science and Technology; Resource Security; Global Health; East Africa; West Africa

MOZAMBIQUE'S GAS RESERVES CREATE CONFLICT

A spike in insurgent attacks in Mozambique represents a growing risk to the gas projects situated in the country's northernmost province of Cabo Delgado, threatening the future of the African nation's nascent natural gas industry. Much of Mozambique's projected economic growth is tied to its natural gas reserves, which were discovered in 2010 and measure in the trillions of Bcf, according to the U.S. Energy Information Administration. While experts initially projected the discovery to be a boon for Mozambique's economy, it has put the country at risk of falling prey to the "resource curse."

Communities near the projects have been negatively affected, with many residents displaced from their land without adequate compensation. Levels of violence in Cabo Delgado, meanwhile, are on the rise. The Islamic insurgent group known as *Ahlu Sunna Wajama* recently increased its attacks in Mocimboa da Praia, a town neighboring multiple natural gas projects that are owned by ExxonMobil and Total. While direct attacks on the projects themselves haven't yet materialized, nearby communities are suffering, with more than 900 people killed by the group since its inception in 2017. Moreover, since Mozambique's natural gas industry is still in its infancy, observers expect these tensions – and the attendant violence – to continue to grow. (*New York Times*, March 23, 2020; *Voice of America*, February 7, 2020)

WEST AFRICA'S FISHING CRISIS

The coastal fish population of West Africa is being pillaged by neighbors and foreign companies for livestock and farmed fish feed, negatively impacting the area's fishing economies. Countries like Mauritania and Liberia depend heavily on fish, and the fishing industry is the principal source of livelihood for more than seven million people in the region. However, due to lax regulations and enforcement, conflict abounds; fishermen from neighboring nations routinely cross borders, and no reliable record is kept of the number of fish being taken. Nor are there detailed regulations among local governments designed specifically to maintain stable populations of local fish stocks. Furthermore, European and Chinese companies, using licenses legally purchased from African countries, overfish in the area and sell the product at a discounted price in their home regions. This has left populations of local fish, like *Sardinella*, decimated by overfishing, putting millions at risk of losing their sole source of income and increasing the likelihood of instability and conflict among economically fragile countries. (*Financial Times*, March 12, 2020)

NEWLY DISCOVERED MICROBE CAN BREAK DOWN PLASTIC

German scientists have identified a strain of microbe that can break down oil-based plastics like polyurethane, which account for 35% of the plastics found in the world's oceans. The microbe, known as *Pseudomonas sp. TDA1*, is described in the new issue of *Frontiers in Microbiology* as relying on the carbon and nitrogen found in carbon-based compounds to break down synthetic materials which are typically hard to recycle or destroy properly and safely. The report, which was part of a larger research effort to find bacteria that can turn environmentally harmful plastics into biodegradable plastics, shows that in a few years, this bacterium could be brought to market for environmental applications. (*Frontiers in Microbiology*, March 27, 2020)

MARINE NUMBERS MOVE TO THE POLES

As global temperatures rise, fish have begun seeking out cooler waters closer to the poles in growing numbers. The transition is one that could have devastating effects on animal species which depend on such marine life for sustenance and livelihood. It could also be a devastating economic blow for many countries along the Equator, the majority of which are already facing growing environmental stressors. Furthermore, as more migratory fish move toward the poles toward crucial plankton and marine invertebrates, birds and larger marine mammals with naturally follow suit, causing environmental problems for already fragile local ecosystems. (*Cell Press*, March 27, 2020)

THINKING ABOUT A HYDROGEN ECONOMY

Last month, scholars at Harvard University's Belfer Center for Science and International Affairs released a report on the geopolitical and market implications of the deployment of renewable hydrogen at scale. In it, the authors highlighted the utility of renewable hydrogen in both mobile and stationary applications. However, they note, a real transition to low-carbon energy will likely upset the geopolitical *status quo* that has prevailed for a century. Even so, the authors hypothesize that future market dynamics will be similar to current regional gas markets. "For the renewable hydrogen industry, future levels of regional concentrations will be determined by global market structures, technological advancements, and infrastructure development," they write, with countries like the U.S. and Australia positioned to be "export champions," while countries like water-constrained Saudi Arabia would experience a reduction in their market influence. (Harvard University, March 2020)