

BRIEFER

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Climate Change and Terrorism: Three Risk Pathways to Consider

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INTRODUCTION

Climate change itself is unlikely to be a cause around which non-state armed actors coalesce and around which their political aims revolve. But climate change will increasingly create recruiting opportunities and expose weaknesses in state institutions that will make existing and future terrorist organizations more capable and/or likely to emerge.

To date, environmental issues have not been a primary cause around which terrorist organizations have organized. Setting aside destructive but largely nonviolent groups like the Animal and Earth Liberation Fronts, there are very few terrorist organizations that explicitly cite environmental issues as their primary motivation. None of the organizations on the State Department list of foreign terrorist organizations – neither past nor present – are primarily oriented around environmental issues. Even in cases where environmental issues are central to terrorist discourse, they may be as much about marketing as they are about conditions on the ground. Non-state armed groups, whatever their actual aims, are more likely to receive favorable Western press when they couch their motives in environmental terms.¹

¹ Clifford Bob, *The Marketing of Rebellion: Insurgents, Media, and International Activism* (New York: Cambridge University Press, 2005).

The Movement for the Emancipation of the Niger Delta (MEND) is often thought of as an environmentally-motivated terrorist organization. Oil is a central pillar of the Nigerian economy, accounting for nearly 90 percent of exports and 70 percent of government revenues. All of Nigeria's oil production, however, occurs in and around the Niger River Delta, which makes up 7.5 percent of the Nigerian land mass and about 20 percent of its population. Vast networks of small pipelines crisscross the landscape and are prone to leaks and sabotage; in the recent past, the region has averaged almost 420 spills per year. Environmental issues have been a part of MEND's discourse as they have remobilized in the last 18 months. But their primary objective has morphed over time from independence from Nigeria to a more equitable distribution of the oil wealth the region generates: their grievances are as much economic as they are environmental.

But that doesn't mean climate change won't pose security challenges that operate through the activities of terrorist organizations. This brief lays out three channels through which climate change and climate-related natural disasters may affect terrorist activities. The first is via its effects on recruitment. The second is by weakening state institutions – or exposing the weakness thereof – and eroding the capacity of governments to respond to challenges generally and climate change specifically. The third is via second-order effects: the effects of collective attempts to mitigate climate change through transitions to more sustainable energy systems.

CLIMATE CHANGE EFFECTS ON TERRORIST RECRUITMENT

It is no secret that food and livelihood security have been central components of military recruitment for centuries. The promise of three-square meals, shelter, and protection from other armed groups are powerful inducements to join terrorist organizations, especially in contexts where battle lines are highly fluid and competing armed groups may be present. In a survey covering seven countries in Latin America, Africa, and the Middle East, unemployment and idleness – sustained lack of livelihood or income-generating opportunities – were the most common motivations for participating in rebel movements and joining street gangs.² As recently as a few years ago, Boko Haram expanded its recruiting activities to northern Nigeria and Cameroon by offering young men in food-insecure communities monthly salaries of between \$600 to \$800. That might not sound like much money to some readers, but it's a staggering sum in that part of Nigeria, where underemployment at the time was as high as 75 percent and the minimum wage was perhaps a tenth of that.³

² World Bank, *World Development Report 2011: Conflict, Security, and Development* (New York: United Nations, 2011).

³ Cullen S. Hendrix and Jessica Anderson, *Resilience and Food Security Amidst Conflict and Violence: Disrupting a Vicious Cycle and Promoting Peace and Development* (Washington, DC: USAID, 2021).

For these reasons, food insecurity and depressed agricultural livelihoods can be a source of motivation for violent extremism. Climate change will pose massive challenges to many traditional livelihoods, especially those that revolve around agriculture in the developing and middle-income world, and the profile of a recently unemployed agricultural worker – typically young and male – is similar to the profile of those who join armed groups. According to a recent study in *Nature Climate Change*, climate change has already caused global agricultural productivity to decrease by about 21 percent relative to where it would be absent the effects of higher temperatures, drought, and increasingly erratic rainfall.⁴ Further, it is anticipated to do so even more moving forward, which will render rural livelihoods less sustainable and prompt migration. It does not help that climate change is easy to portray as a problem caused largely by the industrialized countries of the West, which may help the anti-Western messages of many of these groups resonate with potential recruits.

Moreover, sea level rise will render many currently densely populated areas unlivable, contributing to migration above and beyond climate change’s effects for rural livelihoods. Several hundred million people in Sub-Saharan Africa, Asia, and the Middle East are anticipated to move within and across borders in just the next couple decades.⁵ While most of this migration can in fact be beneficial and adaptive in nature, some of it could place strains on existing institutions and potentially contribute to conflict via large-scale migration and tensions between recent arrivals and host communities.

CLIMATE CHANGE EFFECTS ON STATE INSTITUTIONS AND LEGITIMACY

The second channel through which climate change may affect terrorist activities is via the effect on state institutions and state legitimacy. Reasonable people do not hold the government responsible for droughts, cyclonic storms, flash floods or other rapid onset natural disasters. Even insurance companies, for whom assigning blame is the key to guarding the bottom line, term such events “Acts of God,” for which no one can be held accountable. People do, however, hold governments accountable for their preparations for and responses to disasters. Look no further than the Syrian Civil War to see this in action.

From 2006-2011, Syria experienced one of the worst long-term droughts in the history of the Fertile Crescent, with climate scientists calling it the worst “in the instrumental record.” Further analysis would link the drought to climate change, arguing that climate change had made this type of extreme drought

⁴ Ariel Ortiz-Bobea, Toby R. Ault, Carlos M. Carrillo, Robert G. Chambers, and David B. Lobell, “Anthropogenic Climate Change Has Slowed Global Agricultural Productivity Growth,” *Nature Climate Change* 11 (4): 306-312.

⁵ David J. Kaczan and Jennifer Orgill-Meyer, “The Impact of Climate Change on Migration: A Synthesis of Recent Empirical Findings,” *Climatic Change* 158 (3): 281-300; Viviane Clement, Kanta Kumari Rigaud, Alex de Sherbinin, Bryan Jones, Susana Adamo, Jacob Schewe, Nian Sadiq, and Elham Shabahat, *Groundswell: Acting on Internal Migration, Part II* (Washington, DC: World Bank, 2021).

more likely.⁶ Agriculturally dependent regions like Hasakeh in the northeast saw 75 percent of crops fail and herders lose 85 percent of their livestock.⁷ These losses left 1-1.3 million Syrians food-insecure and made rural life unsustainable. Fleeing the drought-imposed hardship, more than 1.5 million people – mostly agricultural workers and family farmers – moved from rural areas to cities, slums, and camps in and around Syria’s major cities: Aleppo, Damascus (the capital), Dara’a, Deir ez-Zour, Hama, and Homs. Many of these migrants were young men accustomed to farm work who found their employment prospects dim in these urban centers. Successful farmers and farmhands became unskilled, lowly paid laborers almost overnight.⁸

This mass, rapid migration placed significant strain on these urban centers, especially as food prices skyrocketed across the Middle East and North Africa. Taking cues from the Arab Spring uprisings in neighboring countries and angered by spiraling food prices related to Russia’s drought and wildfires, some of these displaced young men began protesting the al-Assad regime, demanding the release of political prisoners in March 2011. These demonstrations began peacefully but escalated to violent clashes as the security forces responded in a heavy-handed manner. The rest, as they say, is history.

Now, it would be wrong to state the Syrian Civil War is *about* climate change. Many Syrians were already dissatisfied with the Assad regime. The Syrian Civil War, and the terrorist groups that have been active therein, and emboldened by the ungoverned space it created. They are not fighting over climate change. Long-standing issues like authoritarian rule, human rights abuses, exclusionary patronage networks built around religious identity and proximate “sparks” like surging food and fuel prices and the demonstration effect of Arab Spring uprisings in neighboring countries were and are obviously factors as well. But it was the drought that cast into stark relief the regime’s inability to meet the basic needs of its citizens and disastrous policy decisions, like the Syrian government’s removal of farm subsidies on inputs like fertilizer and water that tripled farmer’s operating costs. More generally, climate change is going to challenge governments to respond to natural disasters and increasing pressure on social and economic systems, and the quality of the responses thereto will have a huge impact on whether those governments are perceived as legitimate or not. Weak state institutions and a lack of popular legitimacy, mixed with hardship in the wake of a natural disaster, are a recipe for violent extremism.

⁶ Colin P. Kelly, Shahrzad Mohtadi, Mark A. Cane, Richard Seager, and Yochanan Kushnir, “Climate Change in the Fertile Crescent and Implications of the Recent Syrian Drought,” *Proceedings of the national Academy of Sciences* 112 (11): 3241-3246.

⁷ Francesco Femia and Caitlin E. Werrell, “Syria: Climate Change, Drought and Social Unrest,” *Center for Climate & Security Briefing* No. 11 (Washington, DC: Center for Climate & Security, Feb 2012).

⁸ Francesco Femia and Caitlin E. Werrell, “An Unstable, Stable Nation? Climate, War, Migration and Security in Syria from 2006-2011,” in *Climate Hazard Crises in Asian Societies and Environments*, Troy Sternberg, ed. (Oxfordshire, UK: Taylor & Francis, 2017).

It would be a reasonable impulse to think the US government could help forestall these challenges by providing enhanced military aid and training to partner governments. But absent improvements in more general government effectiveness and bureaucratic capacity, increasing military capacity often has the opposite effect. Generally speaking, bureaucratic and administrative capacity has terror-suppressing effects, while larger, more technologically sophisticated militaries tend to provoke more attacks.⁹

THE ENERGY TRANSITION AND TERRORISM

The third channel through which climate change interfaces with terrorism is less about what climate change is doing to communities and more about what the world is doing in an attempt to curb warming. Attempts to mitigate climate change will have seismic effects for global energy systems, with particularly important security implications for a) major legacy hydrocarbon producers and countries that invested heavily in energy exploration and infrastructure during the 21st century commodity boom of the past two decades, and b) countries with large, exportable endowments of critical minerals, like aluminum, copper, rare earths, lithium, and cobalt, that will underpin transitions to more sustainable energy systems.

Mitigating climate change will require decarbonizing energy systems. This may augur poorly for political stability in legacy energy-exporting countries, like Saudi Arabia and the other countries of the Gulf Cooperation Council, and for newer energy exporters, like Ghana, which has been producing for about a decade. These countries are now facing a future where such assets are potentially significantly diminished in value, if not stranded: the International Energy Agency warns that oil and gas-producing economies may “lose” up to \$7 trillion by 2040.¹⁰

As resource rents—and the patronage networks and repressive capacities they fund—are the foundation of domestic stability in many resource-exporting countries, the energy transition will imply fewer resources to invest in either repressive or accommodative responses to social unrest, increasing probability of regime change, and/or adverse changes in leadership. But in terms of its effects for international terrorism, it may on margin reduce funding options, especially for those terrorist organizations built around jihadist ideology and aims. The oil-rich economies of the Gulf have long allowed some oil proceeds to filter through the domestic economy and fund terrorist activities abroad, so as these resources dry up, so will this opportunity for funding. Of course, we should anticipate terrorist groups will try to adapt to a changing financial reality.

⁹ Cullen S. Hendrix and Joseph K. Young, “State Capacity and Terrorism: A Two-Dimensional Approach,” *Security Studies* 23 (2): 329-363.

¹⁰ International Energy Agency, *Outlook for Producer Economies: What Do Changing Energy Dynamics Mean for Major Oil and Gas Exporters?* (Paris: International Energy Agency, 2018).

In the near term, some of the most dire consequences of the energy transition may fall on those countries, like Ghana and Mozambique, which invested heavily in infrastructure to develop oil and natural gas resources but that are saddled with a price environment that makes the twin goals of debt repayment and addressing domestic pressures to see oil dividends translate into beneficial social spending more difficult to achieve, potentially resulting in mass disillusionment with government institutions. But there will be serious consequences as well for countries like Saudi Arabia and other Gulf states. These countries have been remarkably unsuccessful at diversifying their economies away from oil and gas for almost five decades.¹¹ There are few reasons to believe they will be more successful in the short- or medium-term without significant political and economic reforms that rulers in these states have thus far largely resisted.

A long-term oil bust implies a potential boon for countries rich in critical minerals. Some of these minerals, like coltan and tungsten, have fueled terrorist organizations in places like Eastern Congo. Many of these metals are found in countries that are highly agriculturally-dependent, face migration pressures and environmental stresses, and have comparatively weak institutions to manage these stresses, such as Guinea or the Democratic Republic of Congo. They face many of the problems described in mechanisms one and two and have endowments of valuable natural resources that provide funding opportunities for armed groups. This is a volatile combination. For these reasons, we should be concerned about both the emergence and/or strengthening of terrorist organizations in places like Eastern Congo and western Uganda, but also across the Sahel – where livelihoods are heavily affected by climate change – and South Asia, particularly the Indian/Bangladeshi border. A potentially even more combustible combination is in Angola, which has rich deposits of these resources but is set also to face significant budgeting and revenue challenges as its oil resources become “lost” to the energy transition.

CONCLUSION

For the foreseeable future, climate change by itself is unlikely to be a cause around which terrorist organizations coalesce and around which their political aims revolve. But climate change will create recruiting opportunities and expose weaknesses in state institutions that will make existing, or future terrorist organizations more capable and/or likely to emerge. Attempts to address climate change can have their own security consequences that, if not mitigated, can increase risks for both legacy energy exporters and countries rich in critical minerals.

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¹¹ Cullen S. Hendrix, “Kicking a Crude Habit: Diversifying Away from Oil and Gas in the Twenty-First Century,” *International Review of Applied Economics* 33 (2): 188-208; Michael L. Ross, “What Do We Know About Export Diversification in Oil-Producing Countries?” *The Extractive Industries and Society* 6 (3): 792-806.