

Scorched Earth

Climate and Conflict in the Middle East

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Of all the regions of the world that will face severe devastation as a result of global warming, perhaps none seems poised to suffer as much as the Middle East, already the planet's hottest and driest. Between 1961 and 1990, temperatures in the Middle East and North Africa rose by 0.2 degrees Celsius, and they could increase by up to seven degrees Celsius by the end of this century. The signs of distress are growing by the year, with normal weather patterns being replaced by chaotic events. In 2020, flooding ravaged Egypt, Iran, and Tunisia, and wildfires spread in Lebanon, Syria, and Turkey. The summer of 2021 brought Iraq's worst drought in 40 years and Syria's worst in 70.

But environmental shifts are only part of the story, and climate catastrophe in the region is hardly a preordained outcome. Nor, despite claims to the contrary, is climate change the main driving force in the region's conflicts. In the Middle East, as elsewhere, climate change is primarily a problem of earthly institutions. Governments are exploiting people's basic needs, such as water

and food, whose scarcity is driven by climate change, and they are dragging their feet when it comes to building resilience and shifting to green energy.

The bad news is that climate change is already doing grave damage to the people of the Middle East, and a number of actors have figured out how to exploit those effects to further their own interests. The good news is that governments in the region, civil society groups, and international organizations can make a difference, even when dealing with intransigent and sometimes brutal regimes. So, too, can the United States. By working with local actors and international organizations, prodding wealthier Gulf states to aid their poorer neighbors, leveraging aid to countries such as Jordan, and influencing U.S. allies such as Israel, Washington can foster a more environmentally sustainable and peaceful Middle East.

Weaponizing Security

In the past decade, discussions about the Middle East in Western media, academia, and policy circles have frequently revolved around the idea that climate change is driving much of the conflict in the region. Although environmental shifts are affecting the region in crucial ways, this emerging narrative mischaracterizes—or misunderstands—the way that political choices shape how vulnerable populations interact with their environment.

Consider Syria: when that country spiraled into civil war in 2011, some observers pointed to climate change as the instigating cause. Rising temperatures, the theory went, caused a major drought in Syria from 2006 to 2010, which triggered agricultural failure. This, in turn, spurred migration and discontent; the uprisings were a natural consequence. In 2015, U.S. President Barack Obama put forward something akin to this argument. Climate change, he said, “helped fuel the early unrest in Syria, which descended into civil war.”

This interpretation doesn’t stand up to scrutiny. After all, previous droughts had been severe and did not lead to violent protests. And struggling farmers and migrants fleeing the drought were not the instigators of the 2011 uprisings: the earliest protests were against political repression.

Politics shaped the environmental challenges preceding the Syrian crisis. After Bashar al-Assad took power in 2000, the regime ramped up its commitment to neoliberal policies at the behest of the World Bank, the International Monetary Fund, and domestic elites who stood to profit from such structural adjustments. These developments came with drastic consequences for rural populations. The uneven transition from Baathist socialism to what the regime dubbed a “social market economy” made Syria’s rural poor even poorer. The discriminatory decisions the government took in building infrastructure—such as the construction of the Tabqa dam, on the Euphrates River, in the 1970s, which displaced thousands of residents—also left the country vulnerable, 40 years later, to the rapid advance of the Islamic State (also known as [ISIS](#)), which capitalized on the lack of local control over energy and water to take over wide swaths of rural Syria. Since the escalation of the crisis in Syria into an all-out war, large groups of displaced people moving from the country to Europe have joined the massive cohort of vulnerable populations fleeing conflict-stricken areas. They have faced coercive border practices and extremely precarious living conditions in refugee camps. And yet their number pales in comparison to the number of internally displaced people in Syria.

There is no clear evidence, however, that climate change alone triggered these and similar new migration trends. Multiple social, economic, and political factors lead people to migrate, and it is difficult to isolate the environment from those other drivers. It is dangerous, moreover, to point to climate change as the root of the region's ills, because that supposition risks promoting deceptively simple conflict-resolution measures and limiting the ability of policymakers to lay the groundwork for real change.

One of the top priorities when it comes to improving conditions for the people most at risk in countries such as Syria is recognizing the intersections between the environment and armed conflict and the ways in which various parties have weaponized the region's vulnerability to climate-driven scarcity. Governments and nonstate actors have repeatedly targeted key infrastructure, depriving people of vital goods and services. During the war in Yemen, for example, [Saudi forces](#) have cut off local populations' access to clean water and sanitation, placing citizens at high risk for communicable illnesses. As a result, Save the Children classified Yemen's 2016 cholera epidemic as a "man-made crisis."

In Syria, the government and nonstate actors alike have deliberately damaged water resources and vital infrastructure as a wartime strategy. In 2013 and 2014, battles between regime forces and ISIS destroyed water plants and sewage pipelines. At one point, approximately 35 percent of Syria's water treatment plants no longer functioned. Meanwhile, ISIS's capture of the Tabqa dam in 2013 represented a significant victory for the group: ISIS threatened to cut off electricity delivery to Damascus, and it released 11 million cubic meters of water to flood the surrounding farmland, forcing local populations into submission and the central government into a no-strike agreement. Turkey also weaponized water during the conflict: to squelch the rise of Kurdish autonomy in northeastern Syria, which threatened to further radicalize Turkey's own Kurdish population, Turkish troops shut off water to 460,000 people in the Syrian province of Hasakah and in three different refugee camps at a time when COVID-19 was running rampant.

The targeting of other infrastructure has also put civilians at risk: when the Syrian government, in conjunction with [Russia](#), damaged oil refineries in the northeastern part of the country, the leaks contaminated surrounding groundwater—a risk factor for gastrointestinal illness, damage to the nervous and reproductive systems, and chronic diseases such as cancer. The Syrians and the Russians aren't alone in wreaking havoc: water shutoffs by Turkey, combined with low rainfall, led the Khabur River to dry up; the river became a landfill and an open sewage site, spreading disease to neighboring villages.

Water for Everyone

Although the United States and European countries seem to be preparing to pivot away from the Middle East, they and international organizations must work harder to foster international norms that protect natural resources and infrastructure even in the midst of conflict. Washington has a limited appetite for confronting such partners as Saudi Arabia on human rights violations, but applying pressure on U.S. partners in the Middle East, including Riyadh, to adopt a common set of standards on this issue could help protect civilians around the globe. After all, there are no long-term winners when infrastructure is destroyed. In addition to the devastating effects it has

on civilians, obliterating basic services creates complications that foreign actors would prefer to avoid.

In Syria and Yemen, the destruction of infrastructure has helped foster lucrative war economies, with both pro- and anti-regime elites carrying out smuggling and extortion rackets in exchange for food, water, and fuel. This dynamic doesn't work to the benefit of even the most cynical international actors operating in the region: when civilians can no longer look to the state to provide necessities such as potable water, there is room for nonstate actors such as ISIS to make inroads. In the end, the most vulnerable populations, such as refugees, pay the ultimate price.

In Yemen, people's already insecure access to food supplies has been exacerbated by the Saudi-led blockade of two major ports, Hodeidah and Salif, where 80 percent of food imports enter the country. All the parties to the conflict there have used the food supply as a shortsighted weapon. This includes the Houthis, the Shiite sect that is fighting the country's Saudi-backed central government, who have expropriated food aid provided by the World Food Program for extortion rackets to fund their wartime operations. The COVID-19 pandemic has only intensified the crisis by disrupting vital supply chains and limiting the purchasing power of local populations.

The devastating effects of the interventions by Saudi Arabia and the United Arab Emirates in the war in Yemen will no doubt limit Yemeni authorities' ability to manage environmental risks. Extreme natural events, such as swarms of locusts and massive flooding, could be in the offing. Saudi Arabia has begun to face increasing international condemnation for its conduct in Yemen; at the same time, Riyadh will inevitably be shackled by the burden of maintaining stability in Yemen for years to come. If Saudi Arabia exercised greater restraint when it comes to targeting water infrastructure, not only would such a move alleviate human suffering, but it could also enhance domestic and regional stability, by limiting the resentment of thirsting and famished populations on Saudi Arabia's southern border.

As the conflicts in Syria and Yemen have made clear, if there is an international consensus against the weaponization of water, it exists in principle but not in practice. The efforts of the Geneva Water Hub, a research institute focused on resolving water-related conflicts, present a starting point for countries to cooperate on the management of shared water resources. UN-Water, an effort connecting the United Nations and other international organizations that was established in 2003 to address issues of water and sanitation, can also play a role, especially in conflicts involving the destruction of transboundary water resources. By coordinating and distributing information on water insecurity in conflict zones, it could raise awareness among member states.

It remains unclear when and how the conflicts in Syria and Yemen will end. But when they do, accountability for environmental harm must be part of any postconflict transition. The UN and the Arab League appear to be taking tentative steps toward allowing Syria back into the global community; as they do so, they should make the Assad regime answer for its disastrous assaults on the environment as well as its mass atrocities against civilians. Any agreement to normalize relations with Syria should include a requirement that Assad and his Russian ally cease their bombardment of rebel populations and infrastructure in northwestern Syria. And postconflict

reconstruction aid should be given only if Assad agrees to provide safe drinking water and sufficient food to his citizens.

Beyond the Battlefield

Of course, the environmental crisis in the Middle East extends beyond war zones. Droughts and sandstorms are forcing hundreds of thousands of rural residents to leave their homes. This is one reason the Middle East currently hosts 45 percent of all the refugees officially registered with the UN system. Although the Middle East is not as food insecure as sub-Saharan Africa, approximately 50 million people in the region face chronic undernourishment. Policymakers there need to push forward a Green New Deal that focuses on the vulnerable and the displaced.

One critical piece of any green transition will be better data. The refugees fled for a reason; determining the role climate change has played in their dispersal will aid policymaking. There is no doubt that climate change is a factor: in 2011, the World Bank conducted surveys in Algeria, Egypt, Morocco, Syria, and Yemen and found widespread loss of income, crops, and livestock; many respondents attributed these challenges to extreme weather events. The World Bank should build on this work and conduct an annual study to forecast the impact of climate stress on vulnerable communities, with an eye toward addressing the priorities of local populations.

Another factor that drives mass migration in the Middle East is the region's intense economic inequality, which climate change threatens to exacerbate. Oil-exporting Gulf countries with diversified, nonagricultural economies, such as Qatar, Saudi Arabia, and the United Arab Emirates, have the financial and technological resources they will need to lower their own emissions, help protect their populations from the effects of climate change, and adapt to a future in which the demand for fossil fuels will be far lower than it is today. Far from losing out in the green economy of the future, those countries are poised to reap significant gains: aggregate demand for oil is likely to increase before it falls, and they are well positioned to become major suppliers of solar energy, which will become an increasingly important resource.

In contrast, impoverished countries such as Libya, Syria, and Yemen will not be able to adapt to climate change on their own. As extreme weather events and shortages of basic staples threaten their survival, people in those countries will increasingly flee. That, in turn, will pose a security risk for the region's wealthier states—giving them an incentive to help pay for a transition to renewable energy across the Middle East and help poorer countries pay for infrastructure improvements that can increase their resilience to extreme weather.

Nevertheless, the rich Gulf states have so far dragged their feet on such measures. They are unlikely to take the necessary steps without external pressure or inducements—even though doing so would be in their interest. The United States and international organizations should partner with the Arab Gulf countries to help them implement an energy transition plan for the region. It is to their economic benefit to do so, after all: oil is a notoriously volatile commodity, particularly during periods of structural transition. The fact that carbon prices could eventually account for the negative externalities of carbon dioxide emissions provides another strong incentive for oil-producing states to take climate change seriously and plan for the coming energy transition.

Of course, it's not just the Gulf states that can play a role in a green plan for the region. The West and international organizations have particular leverage in aid-dependent countries such as Egypt and Jordan, where international assistance will help determine who benefits from climate adaptation efforts. To ensure help reaches the most vulnerable, international organizations should support grassroots efforts, which are more attuned to local dynamics and needs.

For example, the Office of the UN High Commissioner for Refugees, in conjunction with local and other international organizations, such as the IKEA Foundation, made the Azraq refugee camp, in Jordan, the first in the world to be powered by renewable energy, connecting 10,000 shelters to the grid and also offering employment and training opportunities for the refugees. In Yemen, the same organizations used local materials such as khazaf—woven palm leaves—to construct durable shelters that can withstand heavy rains, strong winds, high humidity, and scorching heat.

Also, the United States needs to get tough with its allies in the region. Left unchecked, states such as Israel and Saudi Arabia will continue to engage in greenwashing, pursuing initiatives that pay lip service to concerns about climate change but do little to protect or empower vulnerable populations. Witness how Israel routinely weaponizes water and infrastructure against the Palestinians, especially in Gaza, by damaging wastewater treatment plants and contaminating groundwater during its repeated military operations. [Israel](#) also touts supposedly green energy projects in the occupied Golan Heights, which it illegally annexed from Syria in 1981. Saudi Arabia announced during the 2021 UN Climate Change Conference that as part of its Middle East Green Initiative, it would lower its greenhouse gas emissions to net zero by 2060. But the kingdom continues to bomb critical civilian infrastructure in Yemen. Such practices leave U.S. allies in the region vulnerable to further instability. And that, in turn, makes the United States vulnerable. By signaling to its allies that human and environmental security are inseparable from national security, Washington could restore its leadership and foster effective peace building in the region.

No one should downplay the importance of [climate change](#) in today's Middle East or in the region's future. But policymakers must also understand that the worst outcomes related to environmental stress and scarcity in the region are caused not by long-term shifts in the climate, which are difficult to control, but by short-term choices made and actions taken by powerful people and institutions, which are far easier to influence. Grasping that fundamental truth is the first step to both protecting the most vulnerable people in the region and helping governments transition to more sustainable practices. The cost of those tasks will be high—but the gains to human security and prosperity far greater.

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