



Threat Multiplier

The Hidden Role of Climate Change
in Instability and Conflict in Syria and Yemen

Gina Bou Serhal, Serhat S. Çubukçuoğlu and
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Climate-induced Security Challenges

Climate change – e.g., rising temperatures, rising sea levels, more frequent and intense extreme weather events – not only aggravates existing vulnerabilities such as food and water insecurity but can also lead to heightened competition over diminishing natural resources, widespread displacement, increased societal tensions and conflict.

While science has been unequivocal about the physical impacts of climate change, scientific evidence to support its link to security risks is tenuous. Understanding climate-induced security challenges is crucial, particularly for countries most exposed to climate change impacts. By providing evidence-based perspectives to improve our understanding of climate-induced security risks, this *Insight* series aims to generate insights that support crafting strategies to mitigate such risks.

Cover image: In the Yemeni village of Hais, people are filling jerrycans with water from a well at a makeshift camp for people fleeing fighting between Houthi rebels and government forces, 17 May 2022 (photo by Khaled Ziad/AFP).

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The Hidden Role of Climate Change in Instability and Conflict in Syria and Yemen

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In Syria and Yemen, two Middle Eastern nations highly vulnerable to environmental and sociopolitical pressures, climate change has intensified water scarcity, agricultural collapse and migration, exacerbating pre-existing tensions. In Syria, drought-induced rural migration fuelled urban discontent, contributing to the 2011 uprising. Yemen, facing severe water shortages and resource weaponisation, has seen heightened tribal and sectarian tensions, which have left it in a permanent state of chaos.

The most urgent global issue of the 21st century is global warming, arising from greenhouse gas emissions, and the alarming environmental consequences that it has wrought across the world. While climate change has consequences worldwide, its effects vary across regions: less developed areas or those with limited capabilities to adapt or mitigate climate-induced disasters are disproportionately affected. Fifty-

five climate-vulnerable countries around the world would have been 20% wealthier had it not been for climate change.¹

Climate–Security Nexus

Climate change concerns have grown past the purview of environmental issues, given the indirect link between extreme changes in regional climate and sociopolitical and security threats. The United Nations Development Programme (UNDP) describes climate security as an indirect consequence of the climate crisis for peace and security, notably in fragile and conflict-affected settings.² Climate change is a potent threat multiplier, exacerbating societal tensions and vulnerabilities.

The Middle East is witnessing the crippling effects of climate change, with unpredictable rainfall, temperature elevations, drought and desertification having varying degrees of impact. The Middle East is one of the world’s most water-stressed regions, with 83% of the population subjected to extreme water scarcity.³ Countries experiencing the worst climate-induced challenges are those that are already conflict-ridden. In resource-scarce areas, such as Syria, Iraq, Palestine/Israel and Yemen, various groups have weaponised access to resources as control over water, food and energy supplies is a means of asserting power. Such control exacerbates the structural vulnerabilities created by armed conflict.

This article examines the cases of Syria and Yemen, two of the Middle East’s most susceptible countries to climate-related security

¹ “COP27: Who Will Pay for Climate ‘Loss and Damage’ Fund?”, *AlJazeera*, 20 November 2022, <https://www.aljazeera.com/news/2022/11/20/cop27-un-who-will-pay-for-climate-loss-and-damage>.

² United Nations Development Programme (UNDP), “What Is Climate Security and Why Is It Important?”, UNDP Climate Promise, 1 September 2023, <https://climatepromise.undp.org/news-and-stories/what-climate-security-and-why-it-important>.

³ Samantha Kuzma, Liz Saccoccia, and Marlena Chertock, “25 Countries, Housing One-quarter of the Population, Face Extremely High Water Stress”, World Resources Institute, 16 August 2023, <https://www.wri.org/insights/highest-water-stressed-countries>.

threats and both wracked by years of conflict. It uses evidence from the case studies to assess how climate change affects conflict dynamics.

Syrian Civil War

Climate-induced Effects on Conflict Dynamics

In its 13th year, the crisis in Syria remains the world's largest in terms of displacement, with over 12 million people dispersed within the country and across the region.⁴ Syrian refugees, primarily in the age segment of 18–59, are substantially deprived of land, housing, work and money to sustain their livelihoods and consequently exposed to radicalisation.⁵ Even before the civil war erupted in 2011, the country was suffering critical water-stress levels, desertification and agricultural degradation due to droughts and lower levels of downstream flow in the Euphrates River. Armed conflict and natural disasters hit the country simultaneously.

Often overlooked, climate-induced security challenges in Syria illustrate how environmental stressors in many parts of the world heighten existing sociopolitical tensions and contribute to conflict dynamics. Between 2006 and 2010, Syria experienced one of the most severe droughts in 900 years, leading to massive agricultural failure and displacement.⁶ This environmental stress drove approximately 1.5 million rural Syrians to migrate to urban areas and their outskirts, which were already struggling with resource limitations and high unemployment. The increased competition for water, jobs and services in overcrowded cities added to discontent, eventually converging with political grievances and contributing to the 2011 uprising.

⁴ UNHCR, "Global Focus: Syria Situation", 2024, <https://reporting.unhcr.org/syria-situation-global-appeal-2024>.

⁵ Mehrunisa Qayyum, "Syrian Refugees Plight Goes beyond Funding", *HuffPost* (blog), 10 January 2014, https://www.huffpost.com/entry/syrian-refugees-plight-go_b_4575676.

⁶ Jennifer Holleis, "How Climate Change Paved the Way to War in Syria – DW – 02/26/2021", *Deutsche Welle* (dw.com), 26 February 2021, <https://www.dw.com/en/how-climate-change-paved-the-way-to-war-in-syria/a-56711650>.

The combination of slow- and fast-onset disasters such as forced displacement, extreme heat and water stress caused not only loss of property, jobs and livelihoods, but also memories, connections and cultural heritage that are hard to quantify in value. Such losses make it all the more difficult to re-unite a deeply traumatised and divided society around the common goal of climate adaptation and mitigation. The proliferation of terrorist groups like Islamic State (ISIS), People's Protection Units (YPG/PYD) and Hayat Tahrir Al-Sham (HTS) wrested control away from the government in most resource-rich regions and caused industrial interruptions, energy outages and losses in agricultural production.⁷ These developments placed tremendous stress on refugees, who were gathered in make-shift camps that were often unorganised, dirty and lacking essential health resources.⁸

Syria's Water Scarcity and Historical Challenges

Water scarcity is a major problem that has affected the Syrian people's coping mechanisms. Water shortages are driven by a complex interplay of multiple factors, including global warming, intensified water use, uneven urbanisation, mismanagement and heightened competition for water across boundaries.⁹ Syria shares the Euphrates River with upstream Turkey, which recorded its lowest precipitation rate in 20 years since the early 2000s. The most dramatic decline, of 39%, was recorded in southeastern Anatolia, a region bordering Syria and already characterised by an arid climate.¹⁰

⁷ Samantha Kuzma, Liz Saccoccia, and Marlena Chertock, "25 Countries, Housing One-Quarter of the Population, Face Extremely High Water Stress".

⁸ MedGlobal, "Climate Change, War, Displacement, and Health: The Impact on Syrian Refugee Camps – Syrian Arab Republic", Available via ReliefWeb, 20 September 2022, <https://reliefweb.int/report/syrian-arab-republic/climate-change-war-displacement-and-health-impact-syrian-refugee-camps>.

⁹ Holly Dages, "Syria Has a Water Crisis. And It's Not Going Away.," Atlantic Council (blog), 24 February 2022, <https://www.atlanticcouncil.org/blogs/menasource/syria-has-a-water-crisis-and-its-not-going-away/>.

¹⁰ "Turkey Records Lowest Rainfall of the Past Two Decades", *Daily Sabab*, 19 November 2021,

Shortage of rainfall, ineffective irrigation techniques, over-exploitation and waste contributed to a roughly 40% reduction in water flow into Syria in the past 50 years.¹¹ With 52% of Syrians now lacking access to piped water (that figure was 37% in 2020), people must instead tap into unsafe alternatives, such as water from nearby rivers, which was the main reason for the cholera outbreak in 2023. Climate-related drought, compounded by long-standing water mismanagement and inadequate government responses, created the conditions ripe for the unrest in 2011.¹²

“Climate-related drought, compounded by long-standing water mismanagement and inadequate government responses, created the conditions ripe for the unrest in Syria in 2011.”

The negative impacts of water distress are felt more acutely in specific rural communities that are highly exposed to climate risks. Large government subsidies for water-intensive wheat and cotton farming encouraged inefficient irrigation techniques.¹³ In a country where nearly 75% of families depended on agriculture before the war, Syrian farmers sought to increase supply and maximise their yields by tapping the country’s groundwater resources. As the impact of climate change on water levels dragged on, the Syrian government’s cancellation of fuel

<https://www.dailysabah.com/turkey/turkey-records-lowest-rainfall-of-the-past-two-decades/news>.

¹¹ M. Nour Shamout and Glada Lahn, “The Euphrates in Crisis: Channels of Cooperation for a Threatened River,” Chatham House, April 2015, https://www.chathamhouse.org/sites/default/files/field/field_document/20150413Euphrates_0.pdf.

¹² Laura Clark, “Are Climate Change And the Conflict in Syria Connected?”, *Smithsonian Magazine*, 3 March 2015, <https://www.smithsonianmag.com/smart-news/what-climate-change-may-have-do-conflict-syria-180954453/>.

¹³ “A New Climate for Peace: Syria”, *Climate Diplomacy* (blog), 2024, <https://climate-diplomacy.org/new-climate-peace-syria>.

subsidies multiplied the price of tractor diesel, freshwater extraction and fertilisers, all critical inputs for agriculture.

In rural areas, water stress not only devastated crops and livestock but also disrupted traditional livelihoods, making local communities vulnerable to recruitment by terrorist groups. Additionally, the situation exacerbated social fragmentation, leading to increased violence and crime as well as strained community relations, particularly between farmers and pastoralists who struggled over diminishing land and other resources.¹⁴

A natural disaster like drought can affect countries differently. Whereas industrial societies like the United States or Britain are able to deal with natural disasters in swift, efficient ways, underdeveloped countries like Syria are unable to manage such crises. A disaster management cycle comprises four phases: mitigation, preparedness, response and recovery. Syria lacked a strategy for climate mitigation, was unprepared to deal with climate disasters, lacked effective means to mobilise quickly to respond to disasters, and lacked the means for recovery from disasters. As climate models predict further drying in the region, similar environmental pressures could continue to contribute to instability.

Energy Transition and Climate Change Mitigation

Syria's damaged energy infrastructure faces immense challenges amid ongoing conflicts, climate disruptions and economic turmoil. Since the beginning of the civil war, widespread destruction of power plants and essential infrastructure has caused electricity shortages, leaving large parts of the country with access to only two to four hours of power a day.¹⁵

¹⁴ Francesco Femia and Caitlin Werrell, "New Report: How Climate and Conflict Are Fragmenting Rural Syria," The Center for Climate & Security, 3 March 2022, <https://climateandsecurity.org/2022/03/new-report-how-climate-and-conflict-are-fragmenting-rural-syria/>.

¹⁵ Jalal Al-Attar, "Syria: Energy Transition under Conflict Conditions", Carnegie Endowment for International Peace (blog), 24 October 2024, <https://carnegieendowment.org/sada/2024/10/syria-energy-transition-under-conflict-conditions?lang=en>.

With regional instability disrupting global supply chains and climate change effects increasing food insecurity and resource scarcity, these conditions have exacerbated humanitarian crises in Syria and across the Middle East. Diminished oil and gas supplies have curtailed energy availability, heightening the need for sustainable alternatives to mitigate the compounded effects of energy shortages, conflict and environmental stresses.

Amid the global energy transition, instability and underdevelopment have caused Syria to lag behind other parts of the world in its pursuit of meaningful net zero goals. Syria's energy transition primarily aims to stabilise power availability through renewable sources. The Syrian government has set a goal of generating 2,500 MW of solar power and 1,500 MW of wind power by 2030, with some smaller-scale projects already underway.¹⁶ Solar initiatives for homes and communities have shown promise, improving energy access in regions cut off from conventional power.

The involvement of international supporters and local backers has been crucial to advancing these projects. However, the ongoing political instability and limited funding – particularly as US aid budgets decline – pose obstacles. Rebuilding a resilient, sustainable energy sector in Syria will depend on addressing security concerns in rural areas and entrenched power structures. It will also require equitable resource distribution to prevent exploitation and corruption, which have previously hindered recovery efforts.

Yemen War

Yemen's Water Scarcity and Historical Challenges

Yemen has long been one of the most severely water-stressed nations in the world, with the average Yemeni having access to only one-fifth of the

¹⁶ وزير الكهرباء المهندس غسان الزامل العام 2024 هو عام الاستثمار في الطاقات المتجددة“ [Minister of Electricity Ghassan Al-Zamil: 2024 is the year of investment in renewable energies]", Syria Electricity, 12 June 2024, http://www.syria-electricity.com/?page=Details&category_id=123&id=3493.

water supply the World Health Organization deems necessary for a healthy life.¹⁷ Even before the civil war erupted in 2009, 70% of conflicts in Yemen were linked to competition over water resources. Yemen's former minister of water and environment, Abdulrahman Al Eryani, emphasised that many of the country's divisions stem from resource competition –fundamentally over water, oil and land – and manifest in tribal, sectarian and political conflicts.¹⁸

“Even before the civil war erupted in 2009, 70% of conflicts in Yemen were linked to competition over water resources.”

By 2009, Yemen's per capita water share was 100 cubic metres annually, far below the water poverty line of 1,000 cubic metres.¹⁹ By 2023, this figure had dropped to 83 cubic metres, further exacerbating the challenge of accessing clean and sufficient water.²⁰ Over-extraction and unregulated use of groundwater have depleted resources faster than they can be replenished, putting Yemen's water supply in a critical state. Estimates suggest that, even without the impacts of global warming, Yemen's groundwater could be depleted by 2040, potentially causing a 40% reduction in agricultural output.²¹ This is particularly concerning,

¹⁷ A. J. Glass, “The Water Crisis in Yemen: Causes, Consequences and Solutions” *Global Majority* (e-journal, American University) 1, no. 1 (June 2010): 17–30,

https://www.american.edu/cas/economics/ejournal/upload/glass_accessible.pdf

¹⁸ A. J. Glass, “The Water Crisis in Yemen”.

¹⁹ A. J. Glass, “The Water Crisis in Yemen”.

²⁰ Food and Agriculture Organization (FAO), “Yemen Receives New Funds to Face Ongoing Food Crisis”, 22 May 2023, <https://www.fao.org/countryprofiles/news-archive/detail-news/en/c/1679651/>.

²¹ World Bank Group, “Yemen: Assessing the Impacts of Climate Change and Variability on the Water and Agricultural Sectors and the Policy Implications, 2 April 2010, <https://documents.worldbank.org/curated/en/979121468153566240/Yemen-Assessing-the-impacts-of-climate-change-and-variability-on-the-water-and-agricultural-sectors-and-the-policy-implications>.

given that nearly 74% of Yemen's population rely on agriculture for their livelihoods, with the sector employing 54% of the local workforce.²²

Khat Cultivation and its Strain on Water Resources

Further worsening Yemen's water and agricultural crisis is the local production of khat, a mild narcotic leaf widely consumed for its euphoric effects.²³ Khat consumes 37% of the water supply for agricultural uses, primarily in areas controlled by the Houthi Islamist movement.²⁴ Although the export of khat is banned, it remains Yemen's most profitable crop, with nearly three-quarters of the adult population consuming it, often at the expense of essential food. The cultivation process requires deep-well irrigation, further depleting groundwater and indirectly funding the Houthis' war effort.²⁵

Weaponisation of Water

Notwithstanding the UN-brokered ceasefire of April 2022, which was extended several times, hostilities persist in the country, particularly as various groups compete over scarce water resources. Apart from water shortage, Yemen's water infrastructure faces significant challenges due to ongoing conflict, particularly in Houthi-controlled areas, where local authorities are unable to access facilities for repairs or upgrades.²⁶ The lack of maintenance and inability to undertake long-term planning leaves Yemen's water infrastructure inefficient, vulnerable to attacks and

²² M. A. Thamer, A. Ali, and I. Al-Aghbari, "Agriculture and Yemen's Economy", Carnegie Endowment for International Peace, 16 May 2023, <https://carnegieendowment.org/sada/2023/05/agriculture-and-yemens-economy?lang=en>.

²³ Alcohol and Drug Foundation (Australia), "Khat", n.d., <https://adf.org.au/drug-facts/khat/#:~:text=Khat%20is%20a%20stimulant%20drug,Eastern%20Africa%2C%20such%20as%20Somalia>.

²⁴ FAO, "Qat Production in Yemen and Its Impact on Water Resources", 27 November 2017, <https://www.fao.org/family-farming/detail/en/c/880742/>.

²⁵ N. Bulos, "A Small Narcotic Leaf Brings Big Comfort – and Big Business – to War-weary Yemenis", *Los Angeles Times*, 16 January 2021, <https://www.latimes.com/world-nation/story/2021-01-16/qat-narcotic-leaf-big-business-consumption-yemen>.

²⁶ The Water Diplomat, "Worsening Yemen water crisis: Long-term water development projects halt", 21 October 2021, <https://www.waterdiplomat.org/story/2021/10/worsening-yemen-water-crisis-long-term-water-development-projects-halt>

increasingly weaponised as a tool of conflict, further deepening water scarcity and the humanitarian crisis.

Consequently, nearly 14.5 million people lack safe drinking water and sanitation, heightening public health risks. A cholera outbreak in 2016 underscored the humanitarian impact of limited water access, affecting 53,000 people, many of whom were displaced by the outbreak of violence and living in inadequate conditions.²⁷

The Yemeni city of Taizz, the country's third largest, remains a critical hotspot in Yemen's ongoing water crisis. Situated between Sana'a to the north and Aden to the south, the city has been under siege by both Houthi forces and Yemeni government forces since 2015. Taizz has historically faced challenges in providing adequate water resources to its residents, with the ongoing civil war exacerbating the challenges.

“Nearly 14.5 million people in Yemen lack safe drinking water and sanitation, heightening public health risks.”

Taizz is strategically significant due to its five main water reservoirs, two of which are situated on the frontlines of the conflict and remain inaccessible because of their location. Two of the remaining reservoirs are under Houthi control, while the fifth is in Taizz City, a government-controlled stronghold where most of the population resides. A recent Human Rights Watch report found that the Houthis have weaponised water by blocking water from the two reservoirs under their control from reaching Taizz City, where the main water treatment and distribution station for the water network is located.²⁸ The same report

²⁷ United Nations, Yemen, “Being the Change in Yemen: Improving Integrated Water Resources Management for Food Security”, 14 August 2023,

<https://yemen.un.org/en/224345-being-change-yemen-improving-integrated-water-resources-management-food-security>.

²⁸ Human Rights Watch, “‘Death is More Merciful than Life’: Houthi and Yemeni Government Violations of the Right to Water”, 11 December 2023,

<https://www.hrw.org/report/2023/12/11/death-more-merciful-life/houthi-and-yemeni-government-violations-right-water>.

noted that conflict-related damage to water infrastructure, including pipes and water tankers, has severely disrupted operations. Currently, the city's public water network is functioning with only 21 out of its 88 linked wells. The destruction of water pumps and wells has had devastating impacts on the agricultural sector and undermines efforts to ensure future food security, affecting the overall health of civilians.

Owing to the water shortage, Taizz residents have become heavily reliant on community water tanks connected to the public water network, with most families limited to filling only five small jugs per day for essential needs including cooking, drinking and laundering.²⁹ Some also resort to harvesting rainwater, while others depend on deliveries via water tankers from NGOs or unregulated wells that are frequently dug to meet water demands.

“The country’s water crisis disproportionately affects women and young girls as a result of Yemen’s traditional patriarchal family structure.”

Further complicating an already dire situation, the Houthis are alleged to have placed landmines and improvised explosive devices (IEDs) near critical water infrastructure.³⁰ In a recent report to the United Nations Security Council, an expert working group for Yemen stated the Houthis have placed such explosives in rural villages “to target returning populations after the Houthis left those areas.” The Houthis’ tactics included placing landmines and IED’s near “schools, mosques, houses, including under mattresses, wells, and other water sources.”³¹

²⁹ Associated Press, “Water: A Daily Struggle for Yemenis in Taiz” [Video], YouTube, 22 August 2023, https://youtu.be/thECwAm_LiA.

³⁰ Wilson Center, “Water Weaponization in Yemen: A Conversation with Niku Jafarnia”, *New Security Beat*, 22 March 2022, <https://www.newsecuritybeat.org/2024/03/water-weaponization-in-yemen-a-conversation-with-niku-jafarnia/>.

³¹ United Nations Security Council, “Situation in Yemen: Report of the Secretary-General”, (S/2023/833), 17 October 2023,

The country's water crisis disproportionately affects women and young girls as a result of Yemen's traditional patriarchal family structure. Many young girls are forced to skip school to search for water for their families and have often had to travel to neighbouring towns when local water resources run dry.³²

The Intersection of Climate Change and Conflict

As a result of Yemen's naturally arid climate and its depleting groundwater resources, the country has been ranked the 12th most water-scarce nation globally. This natural water scarcity increases Yemen's vulnerability to the impacts of climate change.³³ Despite ongoing conflict, Yemen has experienced rapid population growth, placing additional stress on its limited water reserves. Climate change exacerbates these challenges, with increasing incidence of floods, droughts and rising sea levels posing threats to coastal communities reliant on fishing. These changes threaten Yemen's food security and economic stability, pushing farmers into the conflict as resource scarcity and land disputes deepen. Soil degradation, erosion and inconsistent water supplies fuel tensions, forcing farmers to align with competing factions in the conflict over access to dwindling arable land and water resources.³⁴

Despite the relative calm in Yemen following the 2023 Saudi-Iranian rapprochement, there is currently no diplomatic pathway towards reunifying the country. The Houthis' continued maritime attacks in the

https://www.securitycouncilreport.org/atf/cf/%7B65BFCE9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/S_2023_833.pdf

³² L. Herzer Risi and E. Greenbaum, "The Global Challenge of Water's Weaponization in War: Lessons from Yemen, Ukraine, and Libya", Wilson Center, 22 March 2022, <https://www.newsecuritybeat.org/2024/03/the-global-challenge-of-waters-weaponization-in-war-lessons-from-yemen-ukraine-and-libya/>.

³³ International Organization for Migration (IOM), "IOM Tackles Water Crisis to Help Create Pathways to Peace in Yemen", United Nations Yemen, 19 September 2024, <https://yemen.un.org/en/279217-iom-tackles-water-crisis-help-create-pathways-peace-yemen>.

³⁴ IOM, "Yemen: Desk Review of Internal Displacement, Climate Change & Environmental Degradation", March 2024, <https://environmentalmigration.iom.int/sites/g/files/tmzbdll1411/files/documents/2024-03/yemen-desk-review.pdf>.

Red Sea further jeopardise Yemen's fragile ceasefire and could hinder future internal peace negotiations. Reunification and peace would be essential for establishing stronger governance mechanisms to improve land and water management.

The anticipated impacts of climate change are expected to further destabilise Yemen's agricultural sector, threatening the livelihoods of the country's most vulnerable populations and weakening the economy while also jeopardising food security. Yemen's limited capacity to address the adverse effects of climate change is likely to intensify conflicts over dwindling natural resources, posing additional challenges to the country's stability.

Conclusion

In conflict-prone regions, such as Syria and Yemen, climate-induced pressures have intersected with sociopolitical and resource-based challenges to amplify vulnerabilities and conflict dynamics. Meanwhile, these challenges limit the capacity of national governments and civil society to build climate resilience. In Syria, with millions displaced and critical agricultural areas devastated, resource scarcity – primarily water – has worsened living conditions and heightened tensions, particularly among rural communities dependent on farming. The severe drought forced many rural people to migrate to urban areas, fuelling discontent among the dwellers there. Continued competition for water and land has fragmented social cohesion and provided fertile ground for recruitment by armed groups, illustrating how climate stressors can both aggravate and emerge from conflict in complex ways. Climate change mitigation measures implemented by international organisations or national governments are key to avoiding consequential societal tensions and vulnerabilities. For instance, international organisations such as the International Programme for Technology and Research in Irrigation and Drainage (IPTRID) and the International Commission on Irrigation and Drainage (ICID) can play a role in strengthening water management and agricultural resilience. By providing guidance to Syrian farmers in implementing sustainable irrigation techniques and infrastructure repairs, they can mitigate rural–urban migration, reducing pressures on urban

resources and labour markets. Additionally, coordination between the Syrian government and international organisations such as the United Nations can bring stability to basic infrastructure. Investments in solar and wind projects directed towards decentralised systems can stabilise electricity supply, ensure that underserved areas are reached and reduce reliance on fossil fuels.

“In Syria and Yemen, the intersection of climate-induced pressures and sociopolitical and resource-based challenges amplify vulnerabilities and conflict dynamics, limiting the capacity of national governments and civil society to build climate resilience.”

In Yemen, the ongoing instability threatens the capacity of local governorates and civil society to build climate resilience and improve water management infrastructure. The continued weaponisation of water threatens to destabilise any fragile peace, while also degrading Yemen’s agricultural sector, impacting public health and undermining food security. Even if high-level peace agreements are reached in Yemen, sectarian and tribal tensions – particularly over land and water resources – are likely to persist. To address these issues, international organisations should prioritise empowering local mediators, who would be better positioned than external actors to resolve local grievances and competition over resources. Past successes with bottom-up approaches show that relying on local negotiators can effectively address community-level conflicts, reducing tensions and promoting sustainable peace.

To address Yemen’s immediate water scarcity, increased international investments must be directed towards the Yemen Emergency Crisis Response Project (YECRP), an initiative led by the World Bank and the UNDP to address Yemen’s humanitarian and economic crises. A key priority should be the expedited delivery of household rainwater harvesting tanks, offering families access to cleaner water and reducing reliance on contaminated public sources, which are far removed from people’s homes. This initiative should continue to

prioritise the most vulnerable communities, with NGOs offering training on tank maintenance and raising awareness about health benefits. By establishing a sustainable, household-level water solution, this approach would relieve pressure on Yemen's strained public water infrastructure, improve health outcomes and empower communities to manage their water resources more effectively. ◆

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