



# Weathering Conflict

## Climate-Induced Drivers of Terrorism in the Middle East

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Kristian Alexander

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## Climate-induced Security Challenges

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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: Syria's Tabqa dam, which in 2017 was partially recaptured from ISIS by US-backed Syrian Democratic Forces. Delil Souleiman / AFP.



# Weathering Conflict

## Climate-Induced Drivers of Terrorism in the Middle East

Kristian Alexander\*

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Climate change amplifies security challenges in the Middle East, exacerbating socio-economic and political tensions. As a "threat multiplier", it worsens existing vulnerabilities, leading to resource scarcity, migration and conditions exploited by extremist groups like ISIS. Case studies, such as the Syrian civil war, highlight how environmental stressors intensify unrest, with extremist groups leveraging resource control to gain influence. Differentiating eco-terrorism from environmental terrorism, the latter poses a greater threat in the region, where extremists weaponise resources. Addressing these issues requires regional cooperation, climate-resilient governance and global support to mitigate climate-induced instability.

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Climate change has increasingly emerged as a global security challenge, with its impacts reaching far beyond rising temperatures and rising sea levels. While the environmental consequences are well documented, a growing body of research highlights how climate change acts as a threat multiplier, exacerbating existing socio-economic and political tensions. Nowhere is this more apparent than in the Middle East, a region already burdened by conflict, resource scarcity and political instability.

Fragile state institutions and weak economies are common in much of the Middle East, and climate-induced stressors heighten vulnerabilities by undermining livelihoods, prompting migration and straining critical resources such as water and arable land. These pressures create fertile ground for extremist groups to exploit, as they prey on communities destabilised by environmental hardship and lack of economic opportunity. Groups such as the Islamic State of Iraq and Syria (ISIS), for example, have taken advantage of the chaos brought on by droughts and resource scarcity, particularly in countries such as Syria and Iraq, where the environmental degradation has exacerbated civil unrest and conflict.

## The Concept of Climate as a Threat Multiplier

In the context of global security, the term “threat multiplier”<sup>1</sup> refers to factors that intensify existing vulnerabilities and exacerbate instability, making conflict more likely. Climate change is increasingly recognised as one such threat multiplier, particularly in regions already prone to economic fragility, as it heightens the socio-economic disparities and governance failures that are often at the root of terrorism, including in the Middle East. Understanding climate change as a threat multiplier helps frame the issue not simply as an environmental challenge, but as a critical factor in the broader landscape of security and terrorism in the region.

While climate change does not directly cause terrorism,<sup>2</sup> severe droughts in agricultural regions threaten people’s livelihoods and heighten competition over remaining resources. Climate change also exacerbates conflict and economic instability, creating “climate refugees”

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<sup>1</sup> Samuel Henkin, et al., “A Climate of Terror? Part I: Approaches to the Study of Climate Change and Terrorism”, START (University of Maryland), IFTRIP, and Pool Re, 2022, [https://iftrip.org/wp-content/uploads/2022/07/START\\_A\\_Climate\\_of\\_Terror\\_Report\\_Summary.pdf](https://iftrip.org/wp-content/uploads/2022/07/START_A_Climate_of_Terror_Report_Summary.pdf).

<sup>2</sup> UNDP, “The Climate Security Nexus and the Prevention of Violent Extremism: Working at the Intersection of Major Development Challenges”, UNDP Policy Brief, 2017, <https://www.undp.org/sites/g/files/zskgke326/files/publications/UNDP-Climate-Security-Nexus-and-Prevention-of-violent-extremism.pdf>.

who flee from increasingly uninhabitable areas.<sup>3</sup> This type of migration is becoming more pronounced in the Middle East as droughts, desertification and extreme weather events push rural populations towards urban centres, straining infrastructure and services and potentially contributing to political instability.<sup>4</sup> Extremist groups capitalise on these tensions by offering security, resources or ideological narratives to displaced populations. By preying on the grievances of those who feel economically or politically excluded, these groups can gain support and further destabilise fragile regions.

## Case Study: The Syrian Civil War and the Rise of ISIS

The Syrian civil war provides a striking example of how environmental stressors can exacerbate sociopolitical tensions and contribute to the rise of extremist groups. Beginning in 2006, Syria experienced one of the worst droughts in its recorded history, lasting until 2011. Millions of rural farmers and their families were forced to abandon their lands and migrate to urban centres in search of economic opportunities. This internal displacement created severe pressure on already strained urban infrastructure, leading to widespread dissatisfaction with the government.<sup>5</sup>

The Syrian regime's failure to adequately respond to the economic and environmental crises further eroded public trust, sowing the seeds for broader social unrest. By 2011, Syria was experiencing the first waves of anti-government protests, driven in part by economic grievances exacerbated by the drought. The government's brutal crackdown on protesters transformed these grievances into full-scale civil

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<sup>3</sup> Guy J. Abel, et al., "Climate, Conflict and Forced Migration", *Global Environmental Change* 54 (2019): 239–249, [doi:10.1016/j.gloenvcha.2018.12.003](https://doi.org/10.1016/j.gloenvcha.2018.12.003).

<sup>4</sup> Peter Schwartzstein, "Introduction: The Fundamentals of Climate Violence: Who, Where, What, Why, How?" In Peter Schwartzstein, *The Heat and the Fury: On the Frontlines of Climate Violence* (Island Press, 2024).

<sup>5</sup> Jan Selby, et al., "Climate Change and the Syrian Civil War Revisited", *Political Geography* 60 (2017): 232–244, [doi:10.1016/j.polgeo.2017.05.007](https://doi.org/10.1016/j.polgeo.2017.05.007).

war. The resulting instability created a vacuum that extremist groups, including ISIS, exploited to gain a foothold in the region.<sup>6</sup>

Extremist organisations such as ISIS thrive in environments where state structures are weak, populations are desperate and social contracts have broken down. In the case of Syria, the group capitalised on the grievances of displaced and impoverished populations, offering a sense of purpose and belonging to those who felt abandoned by both the state and the international community.

“Extremist organisations such as ISIS thrive in environments where state structures are weak, populations are desperate and social contracts have broken down.”

In particular, ISIS’s promises of stability and economic opportunity through resource control resonated with communities that had suffered the most from the environmental and political crises. Resource scarcity, particularly control over water, became a strategic asset for ISIS. The group targeted critical water infrastructure as a means of both controlling populations and leveraging power against adversaries. By controlling dams, water supplies and agricultural resources, ISIS was able to strengthen its influence over local populations who depended on these resources for survival. This tactic not only bolstered the group’s legitimacy among certain segments of the population but also allowed ISIS to destabilise other factions vying for control during the civil war.<sup>7</sup>

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<sup>6</sup> Peter H. Gleick, “Water, Drought, Climate Change, and Conflict in Syria”, *Weather, Climate, and Society* 6, no. 3 (2014): 331–340, [doi:10.1175/WCAS-D-13-00059.1](https://doi.org/10.1175/WCAS-D-13-00059.1).

<sup>7</sup> Sofia Badari, “Climate Variability as a Fuel to Conflicts: The Case of Syria”, Agency for Peacebuilding, 14 June 2021, <https://www.peaceagency.org/climate-variability-as-a-fuel-to-conflicts-the-case-of-syria/#:~:text=The%20analysis%20of%20how%20the%20population%20oppression%20and%20poor%20governance.>

Climate change did not directly cause the Syrian civil war, but it acted as a threat multiplier by worsening pre-existing economic and social vulnerabilities. Extremist groups such as ISIS were quick to exploit these vulnerabilities, using the destabilising effects of resource scarcity to further their own agendas, gain followers and solidify control.

## **Distinguishing Between Eco-Terrorism and Environmental Terrorism**

Terrorists who exploit environmental factors belong to two different categories: eco-terrorism and environmental terrorism. Both involve environmental issues, but they are distinct in their goals, methods and ideological underpinnings.

Eco-terrorism refers to acts of violence or sabotage carried out by individuals or groups with the aim of protecting the environment. These actors typically target industries or activities they view as harmful to the natural world, such as logging, mining or animal exploitation. Eco-terrorism is driven by a radical environmentalist agenda, and while it has manifested in some parts of the world, such as North America and Europe, it has not been a prominent force in the Middle East. The region's sociopolitical landscape, marked by resource scarcity and economic hardship, is less conducive to the rise of radical environmentalist movements than regions where environmental activism has deeper roots. As such, eco-terrorism has limited potential for widespread manifestation in the Middle East, where security threats are driven more by socio-economic and political factors than environmental activism.<sup>8</sup>

Environmental terrorism, on the other hand, refers to the deliberate destruction of environmental resources to weaken enemies or control populations. This form of terrorism has become increasingly relevant in the Middle East, where groups such as ISIS have strategically

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<sup>8</sup> Giorgos Kallis, et al., "Environmental Extremism: Deconstructing Eco-Terrorism and Environmental Terrorism", *Geoforum* 64 (2015): 253–259, [doi:10.1016/j.geoforum.2015.06.014](https://doi.org/10.1016/j.geoforum.2015.06.014).



targeted environmental resources to further their control over territories and populations. During the height of its territorial control, ISIS seized several key water resources, including dams in Iraq and Syria, using them to cut off access to water for certain areas or to flood territories as a weapon of war. The group also targeted the oil industry, damaging infrastructure and setting fire to oil wells as a way to disrupt economies and create environmental destruction.<sup>9</sup> These actions were not driven by environmental concerns but by the desire to terrorise populations and weaken opponents through environmental degradation, making them classic examples of environmental terrorism. By weaponising the environment, these groups not only undermine the livelihoods of local populations but also gain leverage over governments and other rival factions.

**“In the Middle East, environmental terrorism has greater potential for manifestation than eco-terrorism.”**

In the context of the Middle East, environmental terrorism has greater potential for manifestation than eco-terrorism. The region’s resource scarcity, especially water shortages, create opportunities for terrorist organisations to exploit for strategic gains. Extremist groups may continue to target water supplies, agricultural infrastructure or energy resources as a means to weaken state authority and coerce local populations, making environmental terrorism a significant concern for regional security. This form of terrorism serves a dual purpose. On the one hand, it debilitates governments by disrupting essential services and creating economic hardship. On the other hand, it allows terrorist groups

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<sup>9</sup> Paola Andrea Spadaro, “Climate Change, Environmental Terrorism, Eco Terrorism and Emerging Threats”, *Journal of Strategic Security* 13, no. 4 (2020): 58–80, <https://doi.org/10.5038/1944-0472.13.4.1863>.

to present themselves as alternative sources of governance, particularly in areas where states have failed to provide for basic needs.<sup>10</sup>

## Methodological Challenges in Linking Climate Change and Terrorism

While the concept of climate change as a threat multiplier has gained traction in security studies, establishing a direct, causal link between climate change and terrorism presents significant methodological challenges. Political instability, weak governance, economic inequality and sectarian tensions have long plagued the Middle East, creating fertile ground for terrorism. Climate change operates alongside these deeply rooted factors. For example, drought may exacerbate socio-economic grievances, but it is often difficult to prove that environmental conditions are the direct drivers of terrorist recruitment.<sup>11</sup>

Scholars and analysts have pointed out that attributing terrorism solely to environmental factors risks oversimplifying the problem and overlooking the other drivers of extremism. As the US National Intelligence Estimate on climate change noted in 2021, there is “low to moderate confidence” in predicting how physical climate impacts will influence national security and geopolitical conflict, given the intricate dynamics of human and state decision-making.<sup>12</sup> Some scholars argue that environmental stressors merely create opportunities for terrorism, rather than directly causing it. Others contend that climate change exacerbates poverty and displacement, which then create fertile ground

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<sup>10</sup> Aung Win, “Understanding the Link: Ecological Threats and the Rise of Terrorism”, *Vision of Humanity*, n.d., <https://www.visionofhumanity.org/understanding-the-link-ecological-threats-and-the-rise-of-terrorism/>.

<sup>11</sup> A. Telford, “A Climate Terrorism Assemblage? Exploring the Politics of Climate Change-Terrorism-Radicalisation Relations”, *Political Geography* 79 (2020): 102–150, <https://doi.org/10.1016/j.polgeo.2020.102150>.

<sup>12</sup> US National Intelligence Council, “Climate Change and International Responses Increasing Challenges to US National Security Through 2040”, Office of the Director of National Intelligence, 21 October 2021, [https://www.dni.gov/files/ODNI/documents/assessments/NIE\\_Climate\\_Change\\_and\\_National\\_Security.pdf](https://www.dni.gov/files/ODNI/documents/assessments/NIE_Climate_Change_and_National_Security.pdf).

for extremist ideologies. Given the wide range of perspectives, producing a unified theoretical framework that definitively links climate change to terrorism remains elusive.<sup>13</sup>

There is also a lack of robust, long-term data that specifically links climate-related events to the rise of terrorist groups. While there are anecdotal and case-specific examples, these examples often rely on correlational, rather than causal, evidence. The broader difficulty lies in separating the effects of climate change from other, often more immediate, causes of conflict, such as economic collapse, political repression, or external intervention. Variations in the way terrorism is defined and measured across different studies further complicate efforts to establish a clear connection between climate change and terrorism.<sup>14</sup>

Despite these challenges, it is essential to acknowledge that climate change does play a role in shaping the broader security landscape in the Middle East. However, its impact is best understood as part of a complex web of factors that interact to create the conditions for terrorism. Future research in this emerging field will need to adopt more nuanced methodologies that account for the multifaceted nature of both climate change and terrorism.

## **Both Global and Local: How the Middle East Has Responded to Climate Security**

In recent years, countries in the Middle East have taken several important steps to address climate security, diversify their energy sources and engage in regional cooperation to mitigate the impact of

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<sup>13</sup> J. O. Asaka, “Climate Change–Terrorism Nexus? A Preliminary Review/Analysis of the Literature”, *Perspectives on Terrorism* 15, no. 1 (2021): 81–92, [https://www.jstor.org/stable/pdf/26984799.pdf?refreqid=fastly-default%3A9b5de8edef7e1761166fd7e605b649c9&ab\\_segments=&initiator=&acceptTC=1](https://www.jstor.org/stable/pdf/26984799.pdf?refreqid=fastly-default%3A9b5de8edef7e1761166fd7e605b649c9&ab_segments=&initiator=&acceptTC=1).

<sup>14</sup> A. Telford, “Where to Draw the Line? Climate Change-Conflict-Migration-Terrorism Causal Relations and a Contested Politics of Implication”, *Environmental Science & Policy* 141 (2023): 138–145, <https://doi.org/10.1016/j.envsci.2023.01.001>.

environmental stressors. With the region facing extreme weather, water scarcity and the strategic importance of shared resources, these initiatives are vital for maintaining stability. Although Gulf Cooperation Council (GCC) nations such as Saudi Arabia and the UAE have been more visible in their efforts, other Middle Eastern countries have also started to integrate climate security into their policies, though substantial challenges remain.

Recognising water scarcity as a security threat has led countries across the region to view collaborative water management as essential to regional stability. For instance, Jordan has collaborated with Israel and Palestine on water-sharing agreements, including the Red Sea–Dead Sea Water Conveyance Project. This initiative, aimed at combatting water shortages, exemplifies how regional cooperation can offer solutions that transcend political borders in the interest of climate security. In Iraq, which experiences severe water scarcity partly due to upstream dam projects in Turkey, the government has promoted water conservation efforts to mitigate some of these effects, although solutions remain difficult to implement without regional cooperation on a larger scale.<sup>15</sup>

**“Recognising water scarcity as a security threat has led countries across the region to view collaborative water management as essential to regional stability.”**

The transition to renewable energy has also gained traction across the Middle East, with countries recognising that energy diversification is key to resilience against climate change. The UAE has invested heavily in solar power, with projects like Masdar City, a model for low-carbon urban planning. Similarly, Saudi Arabia’s Vision 2030 emphasises renewable energy projects such as the Neom megacity, which aims to operate entirely on renewable energy. Other Middle Eastern

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<sup>15</sup> Natasha Hall and Caleb Harper, “Local to Global: Tensions Course through Iraq’s Waterways”, CSIS, 12 May 2023, <https://www.csis.org/analysis/local-global-tensions-course-through-iraqs-waterways>.

countries, like Egypt, have also pursued large-scale solar projects, such as the Benban Solar Park, to diversify energy sources and reduce carbon emissions.<sup>16</sup> This shift towards renewables shows an emerging recognition of the need to limit fossil fuel dependency, which not only mitigates climate impacts but also stabilises economies heavily reliant on oil exports.

“Despite [some] advances, the effectiveness of climate security measures in the Middle East remains uneven.”

COP 28, hosted by the UAE in Dubai, for the first time in the history of the Conference of the Parties to the UN Framework Convention on Climate Change (UNFCCC) elevated climate security as a regional priority. The conference provided a platform for countries to discuss how climate change threatens security and offered an opportunity to promote initiatives that address these risks. COP 28 underscored the importance of adaptation and resilience-building in climate policies, emphasising a need for robust solutions to secure resources, protect infrastructure and foster regional collaboration.<sup>17</sup>

Despite these advances, the effectiveness of climate security measures in the Middle East remains uneven. Countries like Saudi Arabia and the UAE have made substantial progress in renewable energy diversification, water conservation and infrastructure security. Despite growing awareness of climate change as a potential security threat, it remains a low priority for many policymakers in the Middle East, where immediate economic and political concerns often take precedence. Climate security efforts in Syria, Yemen and Iraq, for example, are constrained by ongoing conflicts and lack of governance capacity. Additionally, while regional cooperation has been pursued in water and

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<sup>16</sup> Aidan Lewis, “Egypt’s Renewable Energy Ambitions Face Grid Hurdle”, *Arab Weekly*, 2 July 2024, <https://thearabweekly.com/egypts-renewable-energy-ambitions-face-grid-hurdle>.

<sup>17</sup> Climate Tech (MEA), “COP 28: UAE Pledges \$150M Funding for Water Security Solutions”, 9 December 2023, <https://climatchmea.com/article/cop28-water-funding>.

energy projects, political tensions and resource competition often hinder these collaborations, limiting their long-term viability.<sup>18</sup> The funding gap is another significant hurdle, as the promised US\$100 billion in annual climate finance from developed nations has not been fully realised, leaving many vulnerable regions without adequate support.<sup>19</sup> According to Sinead Barry, analyst in the Climate Diplomacy and Security Programme at Adelphi Consult, Germany, “Emission reduction across the Global North and other high emitting regions is key, but efforts in areas most vulnerable to climate-security challenges must be supported, too. This requires financing and cooperation across all levels. At the moment, conflict-affected regions face extremely high barriers to receiving climate finance, stopping funds from reaching the people who need it the most.”<sup>20</sup>

## Conclusion

Climate security in the Middle East is a critical frontier that demands a comprehensive, region-specific approach to tackle the interconnected challenges of climate change and terrorism. As environmental pressures such as water scarcity, extreme weather events and resource shortages continue to intensify, they exacerbate social and economic vulnerabilities across the region. The stability of the Middle East, and indeed the broader global security landscape, will hinge on how governments, local communities and international partners adapt to these evolving threats.

Water scarcity remains one of the most prominent stressors in the Middle East, driving competition that often spirals into local conflict. Strengthening water and resource management is essential to reduce these tensions. Governments should prioritise investments in sustainable

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<sup>18</sup> Kyungmee Kim and Tània Ferré Garcia, “Climate Change and Violent Conflict in the Middle East and North Africa”, *International Studies Review* 25, no. 4, (December 2023), <https://academic.oup.com/isr/article/25/4/viad053/7420704>.

<sup>19</sup> Julie Bos, Lorena Gonzalez, and Joe Thwaites, “Are Countries Providing Enough to the \$100 Billion Climate Finance Goal?”, World Resources Institute, 7 October 2021, <https://www.wri.org/insights/developed-countries-contributions-climate-finance-goal>.

<sup>20</sup> Interview with Sinead Barry, 3 July 2024.

water infrastructure – such as desalination plants, advanced irrigation systems and wastewater recycling – to mitigate scarcity. Moreover, fostering cooperative frameworks around shared water resources, like the Nile, Tigris and Euphrates, can prevent regional disputes from escalating.<sup>21</sup> Initiatives that help rural communities adopt climate-resilient agricultural practices, such as growing drought-resistant crops and utilising water-efficient technologies, can bolster livelihoods, reducing vulnerabilities that extremist groups may otherwise exploit.

In tandem, climate-resilient governance is paramount for safeguarding public infrastructure and services in the face of environmental stressors. By enhancing their ability to manage extreme weather events and resource shortages effectively, governments can limit opportunities for extremist groups to exploit gaps. This also applies to managing refugee camps and sites for internally displaced persons. If inadequately managed, these camps can strain public services and ignite social tensions between displaced populations and host communities. By ensuring that such facilities are climate-resilient, governments can lessen the pressures that extremist organisations often capitalise on for recruitment and mobilisation.

**“Climate-resilient governance is paramount for safeguarding public infrastructure and services in the face of environmental stressors.”**

Addressing the socio-economic inequalities that climate change often exacerbates is equally crucial. Vulnerable communities disproportionately bear the brunt of climate-induced hardship and thus face higher risks of radicalisation. By enhancing access to education, economic opportunities and social services, and promoting sustainable

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<sup>21</sup> Mohammed Mahmoud, “Climate and Water Security: Opportunities for Diplomacy and Cooperation in the Middle East”, Institute for Peace and Diplomacy, 16 October 2022, <https://peacediplomacy.org/2022/10/16/climate-and-water-security-opportunities-for-diplomacy-cooperation-in-the-middle-east/>.

livelihoods, governments can foster resilience within these communities.<sup>22</sup> Development programmes aimed at improving food security and access to clean water can mitigate the economic shocks that fuel grievances, thus reducing susceptibility to extremist influence.

Regional and international cooperation is pivotal for addressing climate and security challenges given their transnational implications. Expanded efforts through initiatives like the Arab Coordination Group could help integrate climate security more prominently into regional agendas. Additionally, partnerships with international bodies, including the United Nations, can bring vital resources and expertise to implement adaptive strategies on a larger scale. Support from international actors, especially Europe and the United States, is essential to bolster technical capacity, funding and governance frameworks. Such collaboration is not only beneficial for the Middle East but also aligns with broader geopolitical interests in preventing climate-induced instability.<sup>23</sup> ◆

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<sup>22</sup> Ruma Bhargava and Megha Bhargava, “The Climate Crisis Disproportionately Hits the Poor; How Can We Protect Them?” 13 January 2023, World Economic Forum, <https://www.weforum.org/stories/2023/01/climate-crisis-poor-davos2023/>.

<sup>23</sup> Brookings Institution, “Climate Change May Devastate the Middle East. Here’s How Governments Should Tackle It”, *Brookings Initiative on Climate Research and Action*, August 2022, <https://www.brookings.edu/research/climate-change-may-devastate-the-middle-east-heres-how-governments-should-tackle-it>.





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