**Climate Change and Conflict in the Middle East**

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In 2008–9 I served as a climate change consultant for the United Nations Development Programme (UNDP), drafting for the Palestinian Authority a climate change adaptation strategy and program of action. At the time the UNDP was supporting over seventy “least developed countries” in the preparation of national adaptation programs of action under the United Nations Framework Convention for Climate Change (UNFCCC), and the consultancy project followed UNDP guidance on adaptation policy planning, including templates for vulnerability analysis, stakeholder engagement, and identifying climate adaptation measures. Growing international attention to global warming created an opportunity for the Palestinian Authority to include climate change planning in its state-building efforts, demonstrating to the international community the type of evidence of “good governance” that would, for the Middle East Quartet, assure Israel that an independent Palestinian state would not be a threat. Instead Israel actually opposed Palestinian efforts to become a full member of the UNFCCC; but, after several years of diplomatic lobbying, the “State of Palestine” finally became a party to the convention in March 2016.

On occasion, climate change consultancy work for the Palestinian Authority struck me as surreal, even absurd. My consultant colleagues and I struggled to reconcile the UNDP adaptation policy guidance on mapping climate vulnerabilities with the immediate conflict-laden harm suffered by the inhabitants of Gaza and the West Bank. I recall one visit to Gaza in a convoy of white UN vehicles, three months after the end of the 2008–9 war in Gaza, where we were driven into Gaza City, past shattered buildings and burnt-out cars, to convene meetings about climate vulnerability: climate change was irrelevant in this flattened landscape. Focusing on risks to water and food security, we attempted to integrate—from field visits, stakeholder meetings, and interviews—the scenarios of climate science with the lived experience of Palestinian farmers and fishers. We tried to reconcile, in other words, projected bio-physical stresses with the social-political materiality of a protracted occupation and military blockade. The UNDP concept of human security, then growing in popularity with international humanitarian and development actors, informed our efforts to find a common matrix for ordering threats to lives and livelihoods issuing from radically different sources. It was not difficult to criticize the conduct of a climate vulnerability assessment within the context of unceasing Palestinian suffering; indeed my consultant colleagues and I later published an autocritique,[[1]](#endnote-1) while others raised objections that such an analysis could displace or even naturalize the injustices of the Israeli occupation.[[2]](#endnote-2)

Knowledge of the complex interaction between environmental and socio-political stresses in the Palestinian context made me wary of claims that the effects of climate change in the Middle East will exacerbate or trigger conflict. According to climate scientists, over the course of this century the region faces higher average temperatures, a significant reduction in annual rainfall, and sea level rise. These broad projections, which point to increasing aridity and declining water availability, mask major spatial and seasonal variations.[[3]](#endnote-3) While it is widely acknowledged that there are major uncertainties over local effects in the Middle East, this has not prevented commentators directly attributing conflict tendencies to climate change.[[4]](#endnote-4) Scholars have tended to avoid such “climate determinism,” though some academics have claimed that climate variability and change has, with socio-political stresses, coproduced conflict effects in the region. For example, Eyal Weizmann maps a dynamic “conflict shoreline” onto a moving aridity line—the shift northwards through the Levant of the 200mm annual isohyet, the precipitation threshold for the viability of rainfed agriculture.[[5]](#endnote-5) More controversially, internal migration induced by a 2007–10 drought (attributed at least in part to climate change) becomes a significant contributor to the onset of violent conflict in Syria.[[6]](#endnote-6)

Recent scholarship on the impacts of climate change in the Middle East tends to reject claims giving significant causal weight to these impacts as catalysts or intensifiers of conflict. The drought-migration-Syrian war thesis is largely discredited, both from evidence on migration and from comparative research observing no parallel effects from the same drought on adjoining water-stressed basins.[[7]](#endnote-7) It is acknowledged more generally that water deficits can exacerbate social and political tensions, and that actors securitize water scarcity in the face of increasing competition, yet climate change is less a source of pressure on water and food availability than demographic change (population growth and large-scale migration) and governance systems incompatible with social and ecological sustainability.[[8]](#endnote-8) Institutional failings accentuating water scarcity are apparent at multiple scales—from the domestic (e.g., social conflicts intensified by the skewed development of water resources in Yemen) to the transboundary (e.g., tensions between Iraq and Syria triggered by Turkey’s growing upstream control of the Tigris and Euphrates rivers). Across the region there is also widespread overextraction of groundwater unchecked by governments.[[9]](#endnote-9) Although climate change and variability are not drivers of conflict, these various governance failings leave poorer Middle East countries vulnerable to climate-related impacts on water and land resources.

 Furthermore, climate change in the Middle East is part of a wider transformation of socio-ecological assemblages that is negatively affecting the capacity of countries to adapt to environmental shocks and stresses. A necessary displacement here of the geographical imaginary of the “Middle East” is offered by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) which, in its relevant regional assessment, records for “western Asia” high biodiversity losses and a major deterioration in ecosystem services since 1970. This ecological decline is attributed principally to land use change (notably urbanization), direct exploitation of natural resources, and pollution.[[10]](#endnote-10) Although not theorized in the IPBES assessment, the slow violence of ecological degradation in western Asia is institutionalized by stark asymmetries of political and economic power. The Gulf monarchies—at the forefront of global carbon dumping through their extraction of fossil fuels—nevertheless draw on resource rents to buy adaptive capacity against water and food scarcity through seawater desalination, the importing of food products, and foreign direct investment in agricultural land.[[11]](#endnote-11) Of course, the capacity of these rentier states to absorb environmental and other shocks also rests on the continuation of transfer payments to client populations: this political resilience is being tested by fiscal challenges arising from the global transition to clean energy, as promoted by international action on climate mitigation. Resource-poor Arab states, often dependent on foreign aid and other forms of external support, are more exposed to climate-related stresses from disruptions to rural livelihoods and urban food systems. Yet environmental pressures are never unmediated by political-economic contexts: insofar as vulnerable groups associate degraded socio-ecological conditions of living with their political disenfranchisement, the legitimacy of these states is open to challenge.

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2. Clemens Messerschmid, “Nothing New in the Middle East: Reality and Discourses of Climate Change in the Israeli-Palestinian Conflict,” in *Climate Change, Human Security and Violent Conflict*, ed. Jürgen Scheffran, Michael Brzoska, Hans Günter Brauch, Peter Michael Link, and Janpeter Schilling (Berlin: Springer-Verlag, 2012), 423–59; Sophia Stamatopoulou-Robbins, “An Uncertain Climate in Risky Times: How Occupation became like the Rain in Post-Oslo Palestine,” *International Journal of Middle East Studies* 50 (2018): 383–404. [↑](#endnote-ref-2)
3. Edoardo Bucchignani, Paola Mercogliano, Hans-Jürgen Panitz, et al., “Climate Change Projections for the Middle East–North Africa Domain with COSMO-CLM at Different Spatial Resolutions,” *Advances in Climate Change Research* 9 (2018): 66–80; Hossein Tabari and Patrick Willems, “Seasonally Varying Footprint of Climate Change on Precipitation in the Middle East,” *Scientific Reports* 8 (2018): 4435. [↑](#endnote-ref-3)
4. See, e.g., Oli Brown and Alec Crawford, *Rising Temperatures, Rising Tensions: Climate Change and the Risk of Violent Conflict in the Middle East* (Winnipeg: International Institute for Sustainable Development, 2009); and Sagotam Saha, “How Climate Change Could Exacerbate Conflict in the Middle East,” MENASource (blog), 14 May 2019, accessed 16 June 2019, https://www.atlanticcouncil.org/blogs/menasource/how-climate-change-could-exacerbate-conflict-in-the-middle-east. [↑](#endnote-ref-4)
5. Eyal Weizman and Fazal Sheikh, *The Conflict Shoreline: Colonization Climate Change in the Negev Desert* (Göttingen: Steidl, 2015). [↑](#endnote-ref-5)
6. Peter H. Gleick, “Water, Drought, Climate Change and Conflict in Syria,” *Weather, Climate and Society* 6 (2014): 331–40; Colin P. Kelly, Shahrzad Mohtadi, Mark A. Cane, Richard Seager, and Yochanan Kushnir, “Climate Change in the Fertile Response and Implications of the Recent Syrian Drought,” *Proceedings of the National Academy of Sciences* 112 (2015): 3241–46. [↑](#endnote-ref-6)
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8. Ashok Swain and Anders Jägerskog, *Emerging Security Threats in the Middle East: The Impact of Climate Change and Globalization* (Lanham, Md.: Rowman & Littlefield, 2016); Christopher Ward and Sandra Ruckstuhl, ed., *Water Scarcity, Climate Change and Conflict in the Middle East* (London: I.B. Tauris, 2017). [↑](#endnote-ref-8)
9. Khalil Lezzaik, Adam Milewski, and Jeffrey Mullen, “The Groundwater Risk Index: Development and Application in the Middle East and North Africa Region”, *Science of the Total Environment* 628–29 (2018): 1149–64. [↑](#endnote-ref-9)
10. IPBES, *The IPBES Regional Assessment Report on Biodiversity and Ecosystem Services for Asia and the Pacific*, ed. Madhav Karki, Sondi Senaratna Sellamuttu, Sana Okayasu, and Watara Suzuki, Secretariat of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (Bonn: IPBES, 2018). [↑](#endnote-ref-10)
11. Göçke Günel, “The Infinity of Water: Climate Change Adaptation in the Arabian Peninsula,” *Public Culture* 28 (2016): 291–315. [↑](#endnote-ref-11)