

Climate Policy and Conflict

Maria Gharesifard discusses how inadequate climate policy in the rapidly expanding MENA region could further lead to widespread water and food shortages in addition to civil unrest.

In 2010, the self-immolation of Tunisian street vendor Mohamed Bouazizi incited a wave of political protests and uprisings that became known as the Arab Spring, causing a monumental shift in the state of politics and society in the Middle East and North Africa (MENA) by illuminating widespread dissatisfaction with regional governance (Shaikh 2011). The majority of scholarly interest following this political turmoil focuses on absence of democratic governance and demands by citizens for political inclusion and human rights (Ogbonnaya 2013, 15). Comparatively little attention, however, has been focused on climate policy as a potential driver of conflict. What must be examined is how climate policy failures exacerbate broader, pre-existing regional issues. In order to ensure the possibility of future political stability, radical changes in environmental policy and its practical enforcement are needed.

The MENA region is exceptionally vulnerable to the effects of climate change due to water scarcity and population growth. Water scarcity greatly hinders agriculture, leaving much of the region reliant on food imports (Woertz 2017, 147). The MENA region is the world's 'most water scarce region', and citizens are exposed to higher water stress there than in any other region in the world (World Bank 2018, xxv). The situation is likely to get worse; a 1°C temperature increase would increase water stress for 20 million more people in North Africa alone (IPCC 2007, 445). The MENA region relies on 'virtual water', or importing products which require water for production in lieu of producing such products in their water-starved domestic environment (Hakimian 2010, 71-85). Governments have viewed importation as the solution to water scarcity, but it may not be sustainable. MENA countries are becoming increasingly involved with global trade as their need for food imports rises, but they are now more vulnerable to shifts in food prices and global food shortages.

This vulnerability to climate shifts and the resultant increase in food prices became evident during the global food crisis of 2007-2008 (Clapp 2009, 1183-1196), during which over sixty food riots occurred in thirty countries. They hit the import-dependent MENA region with particular severity, with deaths recorded in Egypt and Tunisia (Berazneva and Lee 2013, 28-39). The food crisis occurred in the aftermath of the global financial crisis, but was also a result of 'the impact of climate change on agricultural productivity' (Conceição and Mendoza 2009, 1170). Several states experienced dry weather and droughts, causing a drop in the global supply of key crops like wheat and rice (Conceição and Mendoza 2009, 1172). One study has found that such resource constraints result in 'breakdown of social order' due to loss of food security, and that food prices are 'a precipitating condition for social unrest'; this pattern is evident in the fact that food prices in MENA rose gradually but significantly between 2004 and the 2010 ignition of the Arab Spring (Lagi, Bertrand and Bar-Yan 2011, 5). So, while importing 'virtual water' may reduce the region's direct vulnerability to local climate risks, it increases dependency on other states and global food prices (Price 2017, 3), trading an immediate threat for a perpetual risk. Thus, it can be said that MENA food markets are exceptionally vulnerable to fluctuations in global trade and that increased food prices increase human suffering (Lagi, Bertrand and Bar-Yan 2011, 5).

Loss of food security in such a short span of time is abruptly detrimental to the social equanimity and political stability of affected nations. Scholars have named climate change a 'threat multiplier'; it exacerbates existing issues and increases the likelihood of conflict, especially civil conflict (Johnstone and Mazo 2011, 11). Climate change, and governmental ineptitude in mitigating it, can erode 'the social contract between citizen and government' (Werrell and Femia 2013, 3). Without food security, citizens are less likely to trust their governments, and as the effects of climate change worsen, the frequency and

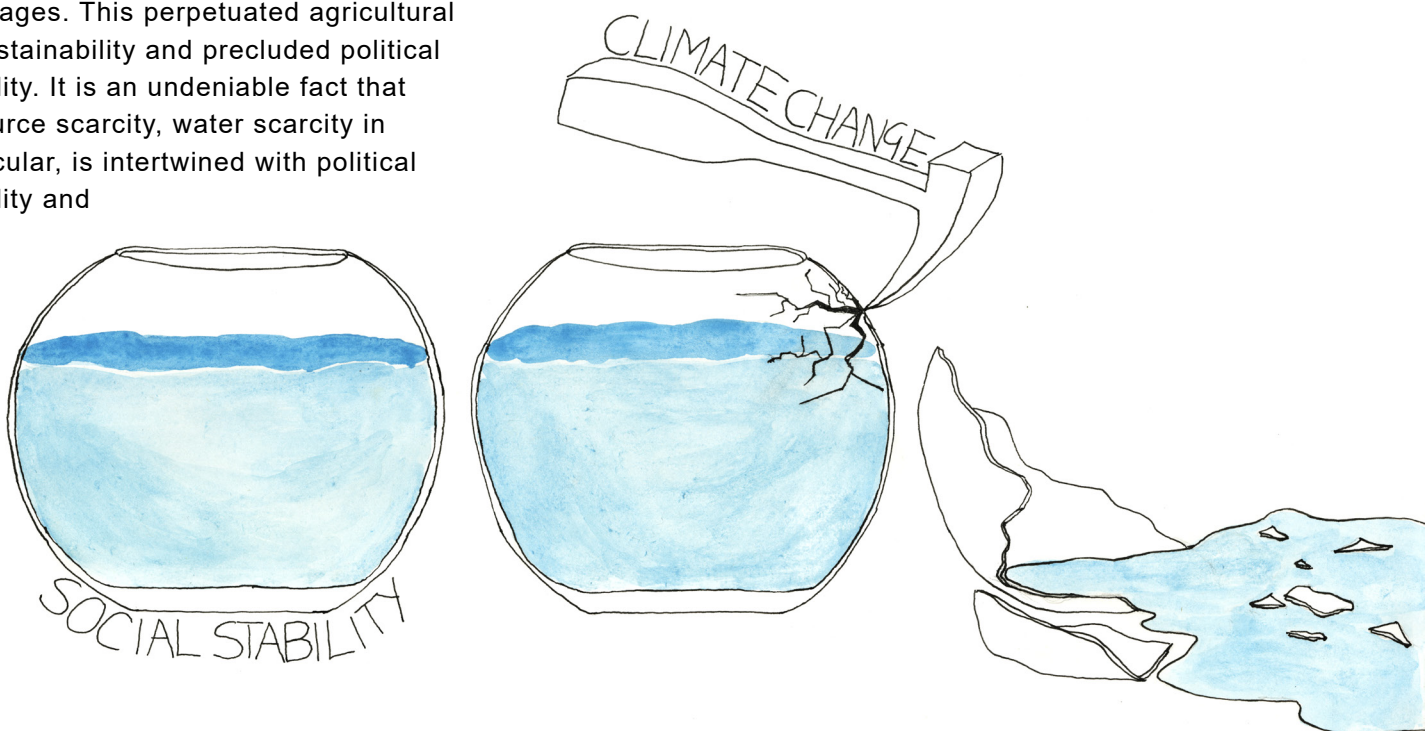
severity of civil conflicts may be predicted to increase.

According to scholars such as Johnstone and Mazo, climate change had a causal role in the Arab Spring, as political discord in the region was worsened by droughts and the 2008 food crisis (Johnstone and Mazo 2011, 11). In fact, the Syrian conflict can be linked to the 'most severe drought in the instrumental record' between 2007 and 2010, directly before the 2011 revolts (Kelley et al. 2015, 1). Egypt was similarly affected by climate shifts and a decline in agricultural production; a popular slogan of the 2011 Egyptian revolution was 'Bread, Dignity and Freedom' (Long 2016). Egypt is the world's largest importer of wheat, and as such was particularly affected by China's 2011 drought as well as harvest shortages in Russia, Ukraine, Canada, and Australia (Sternberg 2012, 520).

Scarcity of renewable resources is and will remain a principal driver of conflict and social disruption around the world (Homer-Dixon et al. 1993, 38). There are three primary contributors to this scarcity: (1) degradation of quality and quantity of renewable resources faster than they can naturally renew, (2) population growth, and (3) unequal distribution of resources (Homer-Dixon et al. 1993, 40). All of these are starkly present in the MENA region, which has one of the fastest regional population growth rates in the world, following only that of Sub-Saharan Africa (World Bank 2017). While the average global population growth rate in 2011 was around 1.2 percent, MENA's growth rate was 2.1 percent (World Bank 2019). Increases in population create corresponding increases in food and water consumption (Santos and Ceccacci 2015, 5). The resultant shortages have been seen to reignite previously latent social and political tensions, a reignition personified by Mohamed Bouazizi (Homer-Dixon et al. 1993, 45).

The fire has only been fed by systemically ineffective governance and short-sighted resource management, a persistent issue which must be addressed. Government policy in Syria following the droughts was conducted 'without regard for sustainability' (Kelley et al. 2015, 1); the government understandably prioritised rapid agricultural production, but in doing so it exploited and wasted already scarce land and water resources (Kelley et al. 2015, 1). Its agricultural policies 'encouraged inefficient irrigation', and up to 60 percent of water used was wasted (Werrell, Femia and Sternberg 2015, 33). The fallout of this mismanagement inflamed socio-political grievances, likely contributing to civil unrest (Werrell, Femia and Sternberg 2015, 33).

The uprisings of 2011 can be partially linked to the failure of states to address the food crisis with sustainable agricultural policies and effective water management. Governments of MENA states, particularly those which experienced Arab Spring uprisings, were unduly focused on short-term gain and immediate recuperation from food and water shortages. This perpetuated agricultural unsustainability and precluded political stability. It is an undeniable fact that resource scarcity, water scarcity in particular, is intertwined with political stability and civil



conflict (Cahan 2017, 4). Poor governance exacerbates environmental issues and – in this case, by extension – inflames social conflicts.

It is clear that climate change is a threat not just to the environment but also to political and social stability.

Though climate change escalates unrest in already vulnerable societies, the link between climate volatility and security is ‘often overlooked’ (Perez 2013). MENA states are highly vulnerable to shifts in the climate and global food prices, and governments are inadequately prepared to meet the challenges this situation presents. To avoid further civil conflict, MENA governments must recognise that climate change threatens regime stability, and that changes in climate policy and its enforcement are needed to stabilise the teetering social contracts between citizens and their respective states.

This article has been edited by Violet Tinnion (MENA Editor) & Abigail Adams (Chief Regional Editor), peer reviewed by Christina Adamson and Samantha Kichmann (Chief Peer Reviewer), copy edited by Veronica Greer, Melody Zhang, Alex Galpin and Ben Malcomson (Chief Copy Editor), checked and approved by the following executives: Robert Wlodarski (Editor-in-Chief) and Emily Hall (Deputy Editor-in-Chief), and produced by Clarissa Gurd (Digital Production Specialist).

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