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A (Hi)story of Vulnerability, Resistance, and Resilience

Over the past few decades, a climate–conflict nexus has emerged drawing on narratives of collapse, and it has more recently been applied to the Syrian case. According to this logic, climate change caused the 2006–2010 drought in Syria, the drought caused agricultural failure, agricultural failure caused poverty and discontent culminating in the uprising. This book questions this line of reasoning given Syria's history of climate, water, and food insecurity, arguing that government policies were at the heart of Syria's vulnerabilities in the buildup to the uprising.

Water and broader environmental conditions define Syria's historical, sociopolitical and economic development as well as its interactions with neighboring countries. I fully support the scientific consensus that climate change is happening and that global action is urgently needed. But whether climate change caused the Syrian uprising is a separate question, and, as this book demonstrates, little evidence suggests climate change in Syria sparked popular revolt in 2011, and a lot of evidence suggests it did not. While I agree climate change worsened the drought, government policies were largely responsible for turning the drought into a national crisis. In fact, even if we were to accept that climate change provoked the drought, unemployed farmers, who were the biggest casualties of the drought, did not incite the protests. Indeed, the original issues protested were wholly unrelated to the drought. Rather, the first impulse for the uprisings was a show of solidarity with the Tunisian and Egyptian revolutions. Even in the second wave of protests held in Deraa, they had no environmental basis but erupted over the torture of schoolchildren.

To evaluate the central claim that climate change caused the Syrian conflict, this book starts by introducing a new theoretical approach: Human–Environmental–Climate Security (HECS). Building on a critical environmental-security perspective, the HECS framework challenges core assumptions behind the climate-conflict hypothesis in

Syria by bringing in economic and sociopolitical factors that interact with resource variation. In doing so, I identify the ideological and policy drivers of human insecurity that impacted Syria's water and food security. Using official primary sources, debates from Syrian experts as well as interviews with Syrian experts, activists, and refugees, I explore how the policy decisions of the Syrian government under Hafez al-Assad and Bashar al-Assad significantly contributed to the vulnerability of the rural population in the decades that preceded the uprisings of 2011. The book concludes that, ultimately, political factors were more important than a climate-induced drought in the buildup to the uprising. This perspective is applicable beyond the case of climate change and human insecurity in Syria.

The book starts by exploring the securitization of climate change and engages with the scholarly debate around environmental security, human security, water and food security, and climate-induced migration. The first sections outline the broadening of traditional security studies to include non-Western perspectives and a more diverse array of potential threats, including environmental degradation, poverty, water scarcity, and climate change. Critical-security stances are essential in these debates as they examine structural inequalities of power and distribution of resources, while also considering the role of states as providers of insecurity and centering the narrative on individuals and groups that address power gaps. The discussion shows how debates on modernization and development still grapple with the concept of food security, which has evolved from a narrow focus on food availability to a more multidimensional approach that includes food availability, affordability, basic needs, entitlement programs, and sustainability. It concludes that the literature has not conclusively shown linkages between climate change, food insecurity, migration, and conflict - both globally and in Syria.

By contextualizing the evolution of Syria's water policy in the regional setting, my inquiry also further broadens the scope to understand how the management of Syria's main sources of water has been impacted by its relations with Turkey and the upstream neighbor's water projects. This chapter also carries great value for global action in showing how international understandings of human security can be harmonized with local norms. The historical assessment of water policy in Syria and the Middle East gives us insight into the ways in which the cultural and institutional norms surrounding water were put

in place over the millennia. The sharing of water resources has determined the rise and fall of the great civilizations in the region as well as the development of rules and norms that have framed local practices around water-sharing. Due to Syria's arid environment and dependence on agriculture, water has been an imperative resource, subject to legislation, for as long as the country has had agriculture. Local norms were often based on Islamic legal principles and were codified until the introduction, in the late nineteenth and early twentieth centuries, of modern legislations, though these legislations themselves were often inspired by local norms. In the 1940s, the newly independent Syria drew on water legislation from Shari'a law, the Ottoman Majalla Code, and the French Water Code, and featured water-security promotion (quantity, drinkable water, water for irrigation) and environmental security (pollution, quality of groundwater resources), values that date back to the beginnings of Islam. This historical overview also explains how the norms surrounding water set up during early Islam would be treated as best practices now: Social justice, or ensuring that water was accessible to all, and sustainability, or water usage without environmental degradation, were key norms. Although these norms were picked up by later laws when Syria became independent, a shift started in the 1960s when they were no longer adhered to.

By centering the narrative on vulnerable populations in Syria, and, more broadly, in the Global South, the HECS framework provides an in-depth analysis of the human-security impact of the environment, including poverty, unemployment, marginalization, and the failure of sustainable development. In so doing, it calls for greater precision in establishing the conditions under which environmental degradation creates risks to human security more globally. Such an approach is intended to place individual human lives at the center of the narrative, making food and water insecurity a critical component of understanding how macro political, economic, and environmental trends drive individuals access to their daily sustenance.

This framework provides, therefore, a new perspective that positions vulnerability and sustainability at the center of environmental and climate risk. It sets the theoretical background for this analysis by defining climate security in human-security terms as a series of threats and vulnerabilities posed by variation in climate conditions as well as in elite decisions to human and ecological life. A crucial element is its applicability and utility in analyzing and untangling the structural,

political, and economic factors of human insecurity and conflict – critical elements for understanding both the Syrian case and situations of human insecurity more broadly. It also seeks to move beyond deterministic narratives and Orientalist biases about the risks of population growth and mobility, demand-induced scarcity, resource depletion, and insecurity, which fall into patterns of core–periphery and North–South divides. Additionally, the framework draws attention to three main types of factors: structural, vulnerability, and resilience. Each of these three factors are closely examined. The first type are structural factors, including context-specific preconditions for political, social, economic, and climate vulnerability and human insecurity. The second type are vulnerability factors, which involve development conditions (water, agricultural, employment, poverty), policies (corruption, subsidies), and environmental variables (precipitation, temperature).

This approach crucially acknowledges that interacting environmental, political, and economic pressures occur in tandem with threats to water and food security and their ensuing migration and poverty, which in turn reinforce the original pressures in a recurring positive feedback loop. In this framework, vulnerability and resilience are parallel concepts that reveal how a lack of sustainability in combination with specific structural factors and inequalities threatens human life through the inability of systems to cope with unexpected change. A water-related vulnerability analysis demonstrates how specific ideological and policy choices were the guiding principles behind these disruptions. By defining the negative outcomes of such policy choices in terms of their vulnerability effects, this analysis shows how the different dimensions of threats measured in the HECS framework can be understood as interlocking and interrelated. Working in connection with the concept of vulnerability, resilience is a critical component of a community's susceptibility to climate insecurity, but in Syria this was relatively low due to poor governance and institutional weaknesses. Rural communities in the northeast have been unable to respond to and cope with risks and changes. This understanding of climate vulnerability and resilience is a critical contribution to international policy debates on the need to optimize regional and local responses in the face of global warming.

The research identifies key policy decisions taken at critical times of Syria's history. Promising food security was one way that new

Ba'athist elites of the 1960s established legitimacy in their rural constituencies, and fulfilling their promises required new agricultural and economic policies. The "Rural Contract" led to the intensification of land reclamations started in 1958, as well as the establishment of state farms and peasant cooperatives to enhance equity in land management distribution. Under Hafez al-Assad's Ba'athist (1970-2000), the government tried to appease its rural base by prioritizing food security above all else, implementing agrarian reforms to collectivize agriculture. Increasing domestic food production therefore became a strategic goal for the Syrian state, in part because it allowed it greater political independence from Western countries but also in part because of fears of being able to feed a projected population of 30 million by 2025. The "peasant" became a symbol of the new ideology and a path to prosperity and legitimacy.

Agrarian reforms enhanced living conditions in the countryside. However, the improved opportunities came at the expense of sustainable water use since large-scale irrigation in rural areas depleted groundwater resources and degraded soil quality, and, ultimately, resulted in human insecurity in the form of land-tenure disputes and population displacement. Beyond the economic costs to the government's water-management approach were social costs; in particular, intensive dam construction forced local populations to relocate. Furthermore, land-reform policies that furthered Arabization, such as the "Arab Belt" policy, excluded Syrian Kurds from agricultural gains in the second half of the twentieth century. Ba'athist preferences also led to the implementation of water, food, and fuel subsidies that distorted market prices.

Decollectivization started early on under Hafez al-Assad but intensified when his son Bashar accessed power in 2000. The liberalization policies in the 1970s–1990s that aimed to increase the role of the private sector, including in the provision of welfare services, involved introducing market mechanisms; limiting the role of state intervention; offering a place in decision-making to business elites rather than trade unions and other corporations; and increasing privatization while keeping public ownership. In 2005, a major ideological shift occurred with the introduction of the social market economy, which aimed to model Syria's new economic transition on Germany's economic model after World War II. Under Bashar al-Assad's liberalizing influence, the regime tried to cater to urban businessmen and neoliberal international

organizations such as the World Bank and the IMF by cutting key food and fuel subsidies and removing safety nets for farmers. While the state did follow its recommendations of subsidy reform, it did not adopt their prescriptions to undertake a gradual approach. These new policies coincided with a historically severe drought when farmers needed the support more than ever, leaving many without access to sufficient water or the ability to sell their produce. the two competing ideologies departed in the same fashion from the traditional values of social justice and water sustainability to create a unique set of vulnerabilities for rural Syria. The analytical comparison of 1998–2001 ("Drought 1") and 2006–2010 ("Drought 2") based on information from government official reports, international academics and organizations, and interviews with Syrian experts and policy-makers supports the claim that climate change alone was not the cause of food and water insecurity during the decades prior to the uprisings.

A longitudinal analysis of key indicators clearly points to a vulnerability nexus in the three governorates (Hassake, Deir ez-Zor, and Raqqa), where unusually high levels of poverty and unemployment and high dependence on the agricultural sector already existed. By the time the major drought of 2006–2010 had hit, the population exhibited high environmental, economic, and social vulnerability and low resilience, setting the stage for a crisis. Trends of below-average rainfall and above-average temperature resulted in lower production output, livestock yields, and higher food prices, exacerbated by poor timing and inadequate government policies. These dynamics increased economic and social vulnerability in the form of unemployment (particularly in agriculture) and poverty, created an urban–rural divide in water access, and triggered migration, corruption, and rising inequality. Corruption and migration were especially large sources of human insecurity up to 2011 and key to social vulnerability.

By 2010, it was clear that the neoliberal reforms had not been successful, according to renowned Syrian economists, water engineers, agricultural experts, and others involved in the SAES. In a series of exchanges and papers presented from 2005 to 2010, they evaluated the (in)effectiveness of the social market economy in terms of agricultural production, social welfare, employment, competition, crisis management, corruption, migration, and poverty, particularly during droughts. Domestic sources felt that the government had put in place effective policies to properly address the effects of the drought.

According to many Syrian experts, however, these policies came too late and were not implemented in a good way, limiting their ability to mitigate the drought's effects in the eastern provinces. Corruption was a major obstacle to equitable and inclusive economic development in Syria. In the early 2000s, it was estimated that 200 billion lira were lost to corruption every year, amounting to 20–40 percent of GDP.

While these factors might not have been sufficient to produce the Syrian uprising in 2011, the long-term structural seeds of conflict had been planted long before as a result of the government's unsustainable practices. The severe stress on water and land resources magnified inequities and produced a ticking bomb waiting to detonate. Once agricultural and fuel subsidies were removed and privatization of the economy was well under way, conflict became an increasingly likely scenario. The stress on water and agricultural resources aggravated human insecurity and became difficult to reverse. A certain path dependency had set in. In 2009, the government attempted to reinstate some of the subsidies to severely affected agricultural communities but failed because the community had already dispersed. In 2011 and 2012, faced with popular mobilization and then war, the government reversed its policy and started reinvesting in the agricultural sector (Syria Report, 2011a, 2012). The conflict, however, has increasingly decimated the sector; the situation became dramatic in 2018 with a severe shortage of farm laborers (Syria Report, 2015, 2016, 2017, 2018b). Losses in Syria's agricultural sector amounted to 16 billion USD since 2011 (Daher, 2018: 11). Syria's GDP decreased from 60.2 billion USD to 12.4 billion (Syria Report, 2018a).

Throughout the book, we have seen the potential role of policy solutions in limiting the consequences of the droughts on vulnerable populations (at least not worsening their impact on them). In other words, policy choices matter for dealing with climate change and reducing vulnerability and building resilience. In the case of Syria, particularly effective policies could consist of targeted agricultural subsidies, the elimination of corruption, job creation, and civil-society development initiatives in rural communities, especially in the northeast.

Since 2011, the Syrian Revolution has been crushed. Today, Syrians continue to mourn over one of the most tragic episodes in the country's rich history. The war intensified the patterns of human insecurity outlined for the previous decade: drastic regional disparities in the

northeastern provinces, increased corruption with new networks of profit derived from war economies, entrenched political and economic domination by the military and security services, as well as businessmen inside and outside the country (Daher, 2018: 19). Rather than building intrinsic resilience, the current postwar reconstruction phase is paving the way for regime resilience on the bases of structural inequalities while increasing the broader population's vulnerability, particularly the refugees who are forced to return home under unsafe conditions. This notion of resilience is critical: It shows how societies and community units respond to and cope with risks and changes.

The HECS framework could, therefore, be helpful for others moving forward. The human-security framework for the environment allows for an understanding of security that considers the deterioration of natural resources as a clear and present threat to human security; it also encourages countries to find regional and national policy solutions to environmental threats that could draw on local norms such as Islamic law and its principles of social justice and environmental sustainability. This framework seeks not only to protect but also to outline unequal power structures that cause or encourage human suffering. This perspective has significant implications for climate insecurity – as the latter is also linked to unequal power relations between the Global North and South or a central government and its marginalized populations - and for how societies can improve the safety, wellbeing, and livelihood of their citizens, all of which are made more difficult in an insecure climate. Where environmentally deterministic narratives remove people's agency by placing it in the hands of external developments, this book gives them a voice.