Arab Reform Initiative

ENVIRONMENTAL POLITICS SERIES

ENVIRONMENTAL POLITICS IN THE MIDDLE EAST AND NORTH AFRICA

PROCEEDINGS FROM FIRST INAUGURAL CONFERENCE

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About the Environmental Politics Program

The program aims to create a community of practice for activists, practitioners, and knowledge producers to share new ways of thinking and forms of action on the environment across the MENA region.

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Introduction:
Politicizing the Environment in the Middle East and North Africa

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We have come a long way since Edward Said described environmentalism as "the indulgence of spoiled tree-huggers who lack a proper cause." Every day we see more activists and knowledge producers approach the environment not as a luxury concern for the Middle East and North Africa, but as inseparable from critical struggles – for livelihoods and well-being, for the right to health, for social justice. Crucially, we also witness more thoughtful reflection on how the term "the environment" is deployed, coupled with greater awareness of and resistance to the use of a certain type of environmentalist discourse to greenwash policies that perpetuate injustice.

Yet we have also not come far enough. For too many activists, environmentalism remains an afterthought. For too many practitioners, "the environment" is siloed in technical fixes and technocratic expertise, divorced from its connections to inequitable political economies, extractive models of development, armed conflict, and occupation.

To elevate the environment to its deserved centrality in the region, the Program on Environmental Politics in MENA at the Arab Reform Initiative (ARI) is creating a community of practice for activists, practitioners, and knowledge producers to foster new ways of seeing and understanding the politics of the environment, and to advance actions and solidarities towards environmental justice.

The essays in this collection are the fruit of the program's inaugural annual conference, held online in June 2021, and featuring 17 speakers who share deep experience in environmental harms and challenges as well as a commitment to creating liveable and sustainable ecologies in our region. Their contributions were structured around the program's four main activity areas: analyzing the institutional and political landscapes that govern national-level governance of the environment; highlighting local-level responses and initiatives (both by municipalities and grassroots actions); supporting environmental activism; and understanding the ecology of war-making and occupation.

Environmentalism from above: Discourse and policy at the national level

How are MENA governments dealing with the pressing ecological challenges of the day? How are policies and "solutions" being enacted, what is included and excluded, and where do the blind spots lie? To answer these questions, we must begin with how governments understand, frame, and represent environmental problems in the first place.

How discourse guides policy is perhaps best reflected in how "the problem of scarcity" is conceived and dealt with. Taking the case of Jordan, one of the world's most water-scarce countries, Hussam Hussein shows us how competing discourses on the causes of water scarcity lead to divergent proposals for solutions. From the Jordanian government's perspective, the blame for scarcity can be found in the other: neighbouring countries (who allegedly limit the supply of water) or immigrants and refugees (who allegedly account for the growing water demand). Consequently, from this perspective, the proposed solution lies in increasing supply to match demand – and the obstacles are primarily financial. Such an assessment clashes with that of non-governmental sources, who resist the government's externalization of responsibility for scarcity and instead attribute it primarily to bad governance and mismanagement: inadequate maintenance of water infrastructures to prevent leakages and losses, ignoring the presence of illegal wells and illegal uses of water, and engaging in unsustainable agricultural policies. Seen this way, the solution rests not in increasing supply but in fixing water management issues – and the challenges are not merely financial but political.

Turning to Egypt, Noura Wahby argues that water scarcity, which may or may not materially exist in the physical sense, is socially constructed at the hand of international donors such as USAID and the World Bank who promote programs for the commodification and corporatization of water as a utility. Such a discourse also becomes a "powerful tool in the arsenal of the state to dispossess and disempower certain communities and make the moral and political decisions as to who deserves water and who does not."

The fact that powerful actors in MENA – be they governments or the international donors who fund them – disseminate a discourse of scarcity in a manner that distracts from the political dynamics of resource management is not a new development. Through a history of the region's food and water systems, Roland Riachi takes us on a tour of how depictions of infertile lands and water scarcity have imbued mainstream narratives, from the Enlightenment era to the colonial period to current

neoliberal developmentalist agendas. These narratives mask the reality of land- and waterscapes across the region: they are diverse, they have transformed significantly over time, and their transformations have been driven by political and power relations. Only if we understand the political underpinnings of the changes in food and water systems over time, argues Riachi, can we honour current socio-ecological aspirations for change.

Beyond conceptions of scarcity, another discursive factor that guides policy and planning is the narrowness with which most Arab governments have conceptualized the environment. As Jessica Barnes puts it, environmental issues are conceptualized as "nice extras to be considered when other development priorities are dealt with rather than a central component of human livelihoods and well-being."

This way of thinking has bureaucratic and organizational implications that hinders an integrated approach. One such effect is the creation of siloed ministries of environment over the past three decades. "How do you plan for adaptation to climate change in Egypt, which may exacerbate water scarcity, when responsibility for climate change falls to one ministry, water to another, and agriculture to a third?" asks Barnes. The narrowness of this approach can also serve cosmetic, depoliticizing purposes, within the context of authoritarian rule. The Ben Ali regime in Tunisia, for example, restricted discourse on the environment to the depoliticized issues of "cleanliness" and "public hygiene" as an attempt to project a semblance of reformism to an international audience, as Intissar Kherigi explains. And even after political transition, "institutional and discursive path dependencies are hard to break," as Chiara Loschi's article demonstrates.

Although contributors were asked to focus on how discourse affects national-level decisions about the environment, they also highlighted research agendas to fill the biggest gaps in our knowledge of environmental governance in the region. Two areas, in particular, stand out. First, Barnes invites us to trace governmental policies from their conceptualization to their implementation; to move beyond how decisions are made to the political negotiations and cultural mediations through which those decisions translate – or fail to translate – into concrete actions on the ground. Second, given the influence of international donors on national-level environmental programs through project-based funding, we cannot understand national-level decisions on the environment in the region without investigating the role and interests of international donors.

Environmentalism from below: Local and municipal politics

Notions such as environmental sustainability and climate change are structural problems of behemoth proportions that necessitate national, if not global, interventions. Yet many environmental effects are experienced intimately at the local level, and very often the local is also the stage for citizen demands and government responses.

Such is the case of the issue of solid waste management, the subject of several contributions in this collection. "When piles of garbage rot on street corners, citizens blame their municipalities for under-performing," as Lana Salman puts it. For their part, municipal administrators see waste management as a way to gain "legitimacy as capable administrators and representatives of the population in the face of their marginalization by now contested and deficient central authorities," according to Jihad Farah. Beyond waste management, as Noura Wahby points out, grounded research has greatly broken down the illusion that the State has a monopoly over the distribution of natural resources like water. Instead, we see governance at the local level, whether privatized governance in elite areas or community governance in informal areas.

We asked contributors in this series to think about the margins of manoeuvre for desirable change from the local level, defined broadly as the municipality, the neighbourhood, or the community.

One positive trend emerges from Tunisia, where recent decentralization reforms give municipalities ample room to intervene in environmental protection and where environmental campaigns are largely localized, "with the local level becoming an important arena for exercising political agency, forging new mobilizational strategies and challenging the current developmental model and patterns of state-society relations," in the words of Intissar Kherigi. She illustrates how local groups and collectives that formed after 2011 have been able to frame the environmental claims at the heart of various campaigns not only in relation to the environmental harm, but as part and parcel of broad and diverse local struggles for socio-economic rights, territorial justice, and a change in the development model. Closing landfills or stopping pollution in specific coastal and agricultural areas are seen as struggles against violations of human, socio-economic, and workers' rights. In the most promising cases, activists have been able to work with municipalities to challenge polluting private companies on multiple fronts, combining legal actions spearheaded by the municipalities with strikes, protests, and other forms of direct action.

Yet more often, local activists' visions are at odds with those of municipalities. According to Salman's work on solid waste management in Tunisia: "While municipalities see environmental problems as either technical and purely related to cleanliness or a matter of jurisdictional responsibilities, for activists, environmental harm is embodied – it affects their health and bodily integrity." These different visions stand in the way of more effective action at the local level.

Lebanon showcases another dynamic, one in which solid waste management is an alluring domain for municipal authorities aiming to assert their legitimacy and power base, but where the limitations of micro-approaches are quickly revealed. As Farah shows, beyond micro-systems at the level of villages, SWM

technologies require building geographical and institutional assemblages and the ability to regularize their relations through funding mechanisms, reliable contracts, operational flexibility, smart land-use policies, and strong managerial oversight.

Moving beyond municipalities and solid waste management, two contributors beckon us to engage with local communities in any approach to 'environmentalism from below.' Commenting on his work as a journalist in the Iraqi context, Khaled Sulaiman asks us to engage with local communities both to hear about their experiences and instincts when dealing with natural resources such as water, but also to raise awareness among them of the implications of climate change, biodiversity, etc. Based on her ethnography of waterscapes in Cairo, Noura Wahby calls on us to "include urban residents' everyday experiences and struggles with their own definition of the environment" and to "expand our notion of environmental movements to include the actions of the urban poor." Such an approach includes looking at community-led initiatives and everyday negotiations that both residents in informal areas and elites use to gain access to water, for "communities are already developing, implementing, and maintaining everyday solutions to environmental negligence and damage themselves."

Mobilizing for the environment: Activism and resistance

From resistance to megaprojects, land dispossession and waste dumping, to mobilization against air pollution, fracking, mining, and water mismanagement, there is a growing and increasingly vibrant activism in MENA around environmental issues – whether in the form of ad-hoc campaigns or more organized social movements born out of environmental harms. We asked protagonists and first-hand observers of mobilization for environmental justice in North Africa to reflect on the following questions: What role does environmental activism play in the context of a broader process of social contestation seeking to change the region's political and economic order? Who are the main actors involved? What are their principal modes of action and strategies? What are their current needs? Where is change most necessary; most possible?

The salient and recurrent theme across the contributions was that activism around environmental or ecological issues in North Africa can only be understood within a broader struggle for socio-economic rights. Algerian activist and researcher Hamza Hamouchene affirms that "socio-environmental struggle", or "socio-ecological conflicts", is a better way to understand the response to the ecological crisis in the region than the term "environmental activism," because it captures the nature of "the fight against the social exclusion, violence, and authoritarianism of neoliberalism and its elites." He traces the crisis to the activities that over-exploit natural resources destined particularly for export to world markets – expressed as oil and gas extraction in Algeria and as phosphate mining and water-intensive agribusiness and mass tourism in Morocco and Tunisia. Such activities have created what Naomi Klein calls "sacrifice zones", "areas disproportionately ravaged by extraction and processing, inhabited by people whose bodies, health, land, and water are sacrificed to maintain the accumulation of capital."

Aziza Moneer's discussion of campaigns in Algeria, Egypt, Morocco, and Tunisia also highlights that these movements are not calling merely for a "clean environment," but rather that they express "people's frustration and discontent with bad governance, low quality of life, corruption, and marginalization" and that they are "a response to, and a rejection of, the extreme forms of inequality and dispossession that have flowed from the shift to neoliberalism." Across countries and issues, movements challenged state discourses that prioritize economic growth built on extractive and polluting activities.

In short, to understand activism around ecological crises in North Africa, we must look broadly at social movements that are not primarily "environmental movements" but are instead populated by members of affected constituencies -- the rural working poor and the unemployed -- who are engaged in the latest development of the struggle against exploitation.

In terms of the actions and strategies, such movements are fraught with challenges and tensions. The main tension, as Hamouchene argues, is one between employment generation and ecological protection; such movements, because they are fighting for livelihoods, are demanding jobs in industries with high environmental and social costs. They are also "ephemeral, localized, and lacking solid organizational struggles," their struggles are "defensive and not offensive," and they disintegrate when minor concessions are made. In addition, "their leadership lacks a radical vision of the movement's struggles and thus fails to link up with other movements nationally or regionally, which traps their demands in a narrow local context."

Environment in conflict: Ecologies of war and occupation

Thinking about war and the environment in the Middle East is not new, but most attention has focused on whether and how environmental conditions (drought, water access) are a cause or a trigger of armed conflict — with findings and methods hotly debated. Much less studied are the ways in which warfare, war-making, and violent occupation in MENA, in turn, affect ecosystems and ecologies. What are the immediate environmental harms and toxic aftermaths of the post-2011 wars in Libya, Syria, or Yemen? What types of resistant or resilient ecologies do we see arising in war? How has the environment intersected with belligerent occupation in Palestine and Iraq? How do we think about and work towards environmental justice in the context of war and occupation?

We asked a diverse set of contributors to contemplate these questions based on their own research and fieldwork, from

ethnography and archival research in South Lebanon and southern Iraq, to legal research and activism in Palestine, to comparative multi-country data projects that seek to categorize and measure some effects of ongoing wars in Libya, Syria, and Yemen.

Political scientist Jeannie Sowers opens the series by asking us to think about the region's recent wars as "environcide" — the intentional or unintentional destruction of environmental infrastructures, i.e., the systems of providing and managing water, energy, waste, and food that make places and landscapes habitable. By tracking and analyzing the targeting of civilian and environmental infrastructure by parties to selected conflicts in Lebanon, Libya, Iraq, Palestine, Syria, and Yemen, Sowers shows that this type of war produces chronic forms of slow and structural violence but also highly visible atrocities, and that the destruction has been done with impunity, with severe outcomes on public health that are foreseen and predictable.

Based on ethnographic fieldwork in South Lebanon in the wake of the devastating 2006 war, anthropologist Munira Khayyat invites us to see war "not only as a deadly and destructive event but also as a structuring condition that shapes how humans and other beings go about making their lives." Using the cases of tobacco farming and goat herding in the South Lebanon war zone, she reveals how the temporal and spatial conditions imposed by war — militarized infrastructures and deadly remains such as mines and cluster bombs — push inhabitants into agricultural practices and livelihoods that are compatible with wartime environments. Such practices are resistant and vitalizing — they refuse the limits and control on life and movement — yet they can also perpetrate destructive and extractive economies and ecologies.

Muna Dajani and Rabea Eghbariah explore three ways in which Israeli settler colonialism, through legal processes and material dispossession, "has been waging war not only against Palestinians but also against their natural environment and their relations with its non-human elements." First, they show how the criminalization of Palestinian herb-picking culture, under the guise of scientific expertise and nature protection, has subjected Palestinians to sanctions and the threat of being caught, interrogated, charged, convicted, and fined. Second, they argue that Israeli policies pertaining to certain animals (goats and camels in particular) show how colonial narratives about the natural environment result in legal policies that target both the animals and their Palestinian owners. Finally, they discuss how water has been weaponized, among other things through Israeli destruction of water pipelines, rainwater harvesting tanks, and even whole communities in the West Bank, and by coercing Palestinians in Gaza into relying on an over depleted and extremely polluted water source (the coastal aquifer).

Bridget Guarasci takes us to the specific case of one type of environmental intervention in war: the reflooding and conservation of Iraq's southern marshes, which the US government and mainstream media routinely argue are the success story of the war, but which in reality allowed foreign donors to "generate goodwill in Iraq by supporting the marshes project to win subsequent lucrative contracts in oil and water for their private sector businesses." Like Khayyat's contribution on Lebanon, Guarasci's intervention asks us to see war not simply as rupture, but as "a slow unfolding of violence over a period of time that far outlasts activity on battlefields" — to recognize that "war is itself an ecology" and that "toxic ecological change, including within human bodies, … unfolds slowly, over the longue durée." And like Dajani and Eghbariah's approach, Guarasci shows that "the environment" is a discourse; a mode of representing the physical world whose effects extend far beyond the body of the natural world, but rather in the bodies of residents of the land and in the political comportment of the state or occupier.

Though in productive conversation, the diverse contributions also reflect differences that leave us wondering to what extent we should make conceptual distinctions between occupation and war when thinking about the environment. While for Sowers "the targeting of environmental infrastructures under protracted occupations shares family resemblances to the fate of environmental infrastructures and civilian populations in protracted conflicts", for Dajani and Eghbariah, settler-colonial projects should not be framed as "an ongoing, prolonged, and protracted war" because such a framing "does not come close to describing the detrimental impacts this settler colonial project has been inflicting on Palestinian relations with land, natural resources, native plants, and animals." The contributions also point to an area that merits future research: how periods of war planning (which outlast periods of acute fighting) reorganize political economies and ecologies in ways that harm human health and local/regional environments in understudied ways.

Conclusion

Taken together, the essays in this collection offer an empirically rich, and theoretically sophisticated snapshot of embattled ecologies in MENA. The challenges are overwhelming. Yet one can be hard-pressed to find a more expansive and integrating cause. As Jessica Barnes put it, "the word environment is an expansive one… the space in which we build our lives and livelihoods – an interconnected web of land, air, water, plants, and animals – that both shapes and is shaped by social relations." As an integrating concept, the environment also allows us to find threads and connections in previously disconnected or compartmentalized issues, to find the overlaps and intersections in challenges that we cannot afford to fix one at a time. We hope ARI's Program on Environmental Politics will contribute to this struggle, to advance the right to a healthy environment as a transversal right that is essential to other critical causes.

ENVIRONMENTALISM FROM ABOVE: Discourse and Policy at the National Level

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On the Environment and Governance:

Examining the Terms of the Debate

Jessica Barnes

What do we mean by the environment? One of the things I have noticed over my years working in the Middle East is that the Arabic word for the "environment" (al-bi'a) does not hold wide resonance. When I first started to do research in the region as a master's student, the name of my degree program – environmental management – invariably met with baffled looks. I would try to re-frame the degree in terms that might be more readily understood. Since I was interested in agriculture, I would compare my field to agricultural engineering. But I am not an engineer, and I also wonder what is lost when we perceive the environmental domain only through the lens of a technical discipline like engineering.

To me, the word environment is an expansive one. I think of the environment as the space in which we build our lives and livelihoods – an interconnected web of land, air, water, plants, and animals – that both shapes and is shaped by social relations. So, in my opinion, tapping soil nutrients and diverting water to grow a crop is an environmental issue. Channelling water through a city, for people to drink and to remove their waste, is an environmental issue. Moving large quantities of grain around a country and across the oceans to produce a staple food is an environmental issue.

Yet this is not how most governments in the Arab world think about the environment. More commonly, the environment is conceptualized in narrow terms, encompassing things like waste management, nature conservation, and pollution control, nice extras to be considered when other development priorities are dealt with rather than a central component of human livelihoods and well-being. Ruling regimes may understand that water pollution is an issue but are much more concerned about water scarcity. They may acknowledge the significance of biodiversity but consider other funding needs much more pressing.

Back in the 1990s, a number of countries in the region created ministries of the environment to take on responsibility for this realm of governance. While, on the one hand, this was a recognition of the environment as being important, this bureaucratic organization has had two problematic outcomes. First, assigning responsibility to a specific ministry hampers an integrated approach to thinking about environmental issues. How do you plan for adaptation to climate change in Egypt, which may exacerbate water scarcity, when responsibility for climate change falls to one ministry, water to another, and agriculture to a third? Second, it means that progress on environmental goals rests with a governmental agency that is often, from what I have observed, marginalized. If the ministry lacks power, its ability to make change, to govern, is constrained.

This brings me to my second question of what we exactly mean by governing. Who gets to govern? And who is governed? One of the things I like to do in my own research is think across scales. My research examines policy frameworks and national programs, but I am also interested in the degree to which those national decisions result in actions and changes at the local level. Ultimately, what I care about is people's everyday lived experience and how their quality of life is shaped by their access to and interaction with various facets of the environment.

Therefore, I think it is important to note the potential for a mismatch between the policy-making taking place in head offices of national ministries, located in capital cities, and what is going on in the regional and local bureaucratic offices that are tasked with implementing those policies. While the theme of my panel was "discourse and policy from above," I do not think that we can consider policy or governance as only being "from above." By this I do not just mean pointing to local forms of activism or mobilization around environmental issues, which other panels of the conference focused on. Rather, I mean that we have to trace governmental policies from their conceptualization to their implementation and consider how they morph in the process.

When I was doing my research on irrigation in Egypt, this was a consistent theme in my observations. High-level officials in Cairo would say one thing, but what I saw in the irrigation directorate in Fayoum city, where I did my fieldwork, was very different, and what I saw in the offices of local district engineers in rural parts of Fayoum province was something else yet again. We have to disaggregate the state, as many anthropologists have argued, moving beyond a monolithic portrayal to think about how state power is enacted in multiple ways across different sites with

varied environmental consequences.

One of the questions the panel organizers posed was about where we see gaps in our knowledge of the institutional and political landscape that governs national-level decisions on the environment. I would say that one of the biggest gaps in our knowledge is not about the national-level decisions so much as the political negotiations and cultural mediations through which those decisions translate – or fail to translate – into concrete actions on the ground. To close this gap, we need more than engineers.

Furthermore, I think we also need to expand our scalar thinking in the other direction. One of the things that was really striking to me when I was working on water issues in Egypt was the role of international and bilateral donors – especially the World Bank, USAID, the Dutch, and the Germans. These donors fund various environmental programs and, as a result, help shape the government's agenda and approach to environmental governance. One development practitioner who was leading a project in the Ministry of Water once joked to me that she thought the ministry was suffering from "projectitus." By this, she meant that the ministry had become so focused on capitalizing on funding opportunities that its entire mode of operation was now project-based. There was very little sense of an ongoing set of activities structured around the government's national water management plan (which itself was written by international consultants working for a donor project). As such, we cannot understand national-level decisions on the environment in the region without appreciating the role and interests of international donors.

These two points – on the need to reflect carefully on how we, and other actors, are deploying the term environment, and to pause to define the varied sites in which governance takes place – are important for understanding more about how countries of the region are dealing with some of the pressing challenges of the day.

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A Political Ecology of Food Regimes and Waterscapes in the Arab World

Roland Riachi

Food and water problems in the Arab world are often presented by mainstream commentators as a combination of natural resources scarcity, namely fertile lands and water, galloping demography, insecurity and wars, technological archaicity, and "bad governance". This narrative is not new and can be traced from the Enlightenment era to the colonial period. It is carried today by neoliberal hegemony over the dominant discourse on development.

Epistemologically in coherence with this constructed scarcity, the region has long been represented as doomed by Hobbesian wars over resources, with a perpetual Malthusian crisis fate, with no Ricardian comparative advantages, and on the threshold of a Smithian water-diamond paradox (here oil), perfectly fit for Hardin's tragedy of the commons. In addition, the ontological social Darwinist roots of Orientalism inspire the best explanations of despotic governance and lack of modernity.

To challenge these dominant paradigms, a historical regional perspective of agrarian and ecological transformations, namely land- and waterscapes, is needed at different levels: theoretically, to avoid falling into previous reductionism; empirically, to elucidate political economy drivers; and for engaging with socio-ecological change aspirations. Historically, the Arab region has subscribed to different food and agricultural paradigms. From imperial and colonial interests in industrial mono-cropping to self-sufficiency goals under Arab nationalism, up to contemporary neoliberal food-import security (Riachi and Martiniello 2021).

From a political-ecological perspective, dispossession and ecological transformation are a product of specific historical moments diluted in a myriad of power relations (Harvey 2005; Swyngedouw 2009). The common hegemonic imperial and colonial history along with post-colonial "modernization" processes offer a fertile ground for the analysis of multi-scalar power relations around food and water in the Arab world. The paper discusses three major instruments of power re-creation and relations to food and water which are private property, technological modernism, and market dependence.

The periodization developed by Friedmann and McMichael (1989) identifies three historical global food regimes episodes referring to specific modes of food production, circulation, and consumption: i) an imperial-colonial episode, or the first food regime (1870-1930s) called the "imperial food regime" and ruled by British and European hegemony; ii) state-capitalism era during the Cold war, referring to the second food regime (1950s-1970s), also called the "industrial-development food regime" or "Green Revolution food regime" under US hegemony; and iii) the emergence of a market-driven neoliberal third "corporate food regime" in the 1970-80s.

In the 19th century, colonial crops proliferated in the Arab world: wine and cereals to feed European troops in the region, cotton from Egypt, and silk from the Levant to supply the Industrial Revolution European factories. This expansion of commercial farming led to a progressive concentration of lands under the control of a few notables and led to a shift in the agricultural landscape from self-subsistence farming to market cash-crop dependencies. The introduction of private property in the region, which started with the French conquest of Algeria in 1830 and which was followed by Napoleonic Code-inspired Ottoman reforms - tanzimat, has caused a wide process of delegitimizing customary and communal rights of people over land.

These dynamics of early capitalist encroachment were only made possible through land entitlements of European colonizers and large landholding feudal and monarchial families in the Maghreb and Levant territories. This led to tremendous social stratification between this high-caste and smallholders, share-croppers, and landless population (Beinin 2001). With irrigated lands more coveted, the introduction of private property is also crucial in understanding the transition from communal water arrangements to registered water rights and water laws, consecrating usufruct privileges to property owners.

Consequently, the privatization of communal mushaa lands is core in understanding the Zionist occupation of Palestine (Issawi 1988). Mechanization and groundwater pumping was first introduced by Kibbutz colonisers, namely in coastal citrus orchards. This intensive agriculture model was presented by French and British mandate authorities as a successful example to be also followed by native populations in order to make the "desert bloom" by using modern technology (Riachi 2021). For urban water as well, technology was central in imposing imperial and colonial engineering expertise through private concessions of water provisioning in many bourgeoising cities in the region.

The concession model lasted from the late-19th century Ottoman Empire, was pursued under interwar mandates, and progressively ended during the nationalization wave that followed the independence of Arab countries.

The second food regime that lasted from WWII to the collapse of the Bretton Woods agreement was characterized by the US Green Revolution hegemony, perceived as an exportable technological paradigm (Otero 2008). Conceived to prevent the Soviet expansion, US containment policies shaped the flows of development aid in large-scale water infrastructure and extension programs in the region. Colonial inherited plans were central in this state-led model construction period. Here, of course, dams were cornerstones. Harnessing a river with a dam has been a techno-political credo of regimes across the world as proof of power, modernism, and independence (Mitchell 2002). Early during national construction until today, dams were presented as pillars of modernization, self-sufficiency, independence fulfilment, and national sovereignty, and of course carried rulers' names.

Beneficiaries of rural development programs and large infrastructures tended to be large farms at the expense of family farmers (Batatu 1999; El-Ghonemy 1999). Self-sufficiency was not reached but land was degraded, soil fertility altered due to large hydrological constructions, natural vegetation destroyed, rural populations displaced (such as the case of Nubians and Aswan dam), and land rights ignored. The "Green Revolution" bears all the qualifications of state-led capitalism, with agriculture intensification accompanying a trend of militarization of many economies in the Arab world during this era. The exhaustion of the Fordist mode of accumulation, the suspension of Bretton Woods, and the lessons from the 1973 oil crisis all led to the emergence of the third neoliberal food regime.

Previous unconditional foreign aid flows from the second food regime became conditioned loans, following infamous Washington Consensus prescriptions, during the third food regime. Neoliberal adjustment policies, implemented by authoritarian regimes in the region, marginalized rural areas by cutting subsidies and reinforcing a regime of private property. This is best represented by the pace of increasing market dependencies and land grabbing in the region. Austerity halted previous attempts of land reforms and discontinued rural development policies initiated in the previous era.

Today, most agricultural countries in the region produce two- to three-folds their needs in most fruit and vegetable water-intensive crops. This new agricultural export trend, benefiting large landowners and traders, is detrimental to small farmers. As it pivots on an extractivist logic, the increased water use required by export-destined crops contributed to environmental degradation and loss of productivity.

Three strategies of capital accumulation are still looming around water resources nowadays with i) the continuous attempts to privatize water services, which is imminent in many cities in the Arab world, backed by international financial institutions, ii) the pursuant dispossession through a legalized appropriation of water in the name of development and private property and at the expense of local populations, and iii) the commodification of the resource, which the increase in the reliance on plastic bottled water in the region over the past three decades represents a striking example.

Neoliberal policies paved the way for water corporates and agribusiness-dominated markets, locally represented through compradors with politically-linked institutions and businesses, while supermarketization undermined local economies and the neoliberal diet led to high rates of metabolic syndromes, in parallel to disastrous socio-ecological metabolic rifts.

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10

Competing Discourses of Water Scarcity in Jordan

Hussam Hussein

Why discourse matters

Discourse and knowledge construction about environmental resources can be a useful way to understand the political economy of countries. In fact, discourses and narratives portray and define what the environmental issue is, driving towards appropriate solutions and policies in line with how the environmental problem is framed, understood, and represented. This is the reason I decided to look at the issue of water scarcity in the case of Jordan, which is known to be one of the most water-scarce countries in the world.

My PhD research investigated the construction of water scarcity in Jordan, looking both at the governmental and state-led representation of the issue, as well as at how NGOs, donors, and academics – among others – saw and understood the problem. What I found was that different actors place different emphasis on the causes and drivers for water scarcity – in line also with their own interests – leading them to support different types of solutions.

What is the water scarcity discourse in Jordan?

Governmental reports and declarations highlight the following four issues as the main reasons for water scarcity in the country: population growth/immigration/refugees; unfair sharing with neighbouring countries; climate change as an additional pressure; and aridity and low precipitation. As we can see, these causes blame the environment/nature for the problem of water scarcity, or neighbouring countries/people from outside of Jordan, and therefore externalise the responsibility. Moreover, the issue of water scarcity, in line with this perspective, is due to both limited water resources available in the country and a growing demand. In other words, due to external factors, the country does not have enough water resources to meet the growing demand for water. As we will see later, the solution put forward in line with this understanding of the problem would be to increase supply to match demand.

The non-governmental and non-mainstream discourse instead emphasizes the following three reasons for water scarcity: non-revenue water due to leakages and physical losses; non-revenue water due to illegal wells and illegal uses; and the unsustainable agricultural water use (type of crops). It therefore appears that these three reasons blame internal issues linked to the government and policies (agricultural policies, maintenance of the infrastructures, and implementation of laws) as the main reasons for water scarcity in the country. In other words, there is water scarcity due to mismanagement and misgovernance. There are enough water resources, but they are mismanaged. However, we must also mention that those viewing the issue as mainly being due to mismanagement do acknowledge the four issues mentioned earlier, but they argue that these three causes are central and key to water scarcity. Consequently, the solution put forward would emphasise a better management of the water resources – focusing on demand-side solutions –before considering increasing the water supply in the country.

What are the solutions for water scarcity in Jordan?

Now, if we turn to the National Water Strategy and on the key strategic projects for the water sector envisioned by the government in the past decade or so, we can see that the two main solutions put forward have been the Red Sea-Dead Sea Conveyance and the Disi Canal Projects. The Red Sea-Dead Sea Conveyance Project, which has been on the table for several decades (in different forms), was supposed to have a regional dimension, desalinate water, pump the brines to the Dead Sea, generate hydropower, and provide freshwater to the main urban areas. However, tensions between Jordan and Israel on different issues resulted in the suspension of this project and in Jordan considering proceeding with it without the regional dimension. The other project, which has been operational since 2014, is the Disi project, which pumps non-renewable groundwater resources from the transboundary Disi aquifer, shared with Saudi Arabia, to Amman and northern Jordan – a distance of 300 km. The rationale behind these two projects is to increase the supply of water in the system by using desalinated water and non-renewable groundwater resources; hoping in some way to reduce pressure on groundwater resources in northern Jordan, which are currently highly over-abstracted. The challenge of these two projects is energy costs, as they both require extensive amounts of energy for pumping the water from Southern Jordan to Northern Jordan and the country currently imports most of its energy resources.

Solutions pushed and supported by NGOs and donors, instead, focus on-demand water management, such as better use of water in agriculture in terms of irrigation technology, tariffing systems, type of crops, and what goods are exported. Moreover, they also suggest a reduction of non-revenue water by rehabilitating the infrastructure to reduce leakages and closure of illegal wells and connections.

What state-led "environmental projects" reveal about the political economy of Arab regimes

The different discourses frame the problem in a way that opens the path towards certain "appropriate" solutions. The sanctioned and dominant discourses – which portray the issue of water scarcity as due to limited water resources, growing demand, and environmental challenges – call for supply-side solutions. In this way, the current uses and allocation of water resources can be maintained and unchallenged – or at least there is less pressure to reallocate and/or change them. This set of solutions is politically easier, because it would only need higher investments and financial commitments, but politically it does not undermine and challenge the constituencies and groups benefiting from the current allocations, especially the agricultural sector.

Instead, the solutions on water demand management, especially the tariffing system, type of crops, and closure of illegal wells and connections, would certainly have higher political costs because they aim to challenge the current and existing water allocations and uses. Going a step further, it is also interesting to explore the political economy of agriculture and of this sector in the country: who are the farmers, how influential they are, and how challenging it is to pass policies or implement laws in this sector. This was a challenge about 20 years ago when the Ministry of Water and Irrigation tried to update the water tariffing for irrigation; the by-law received strong backlash from farmers and MPs, and the government had to revert to more favourable water tariffing a year later.

In the case of Jordan, the challenge has been that, while they had a good long-term plan to shift towards more sustainable water uses and policies, sudden events in the region resulted in the need to adopt new measures to ensure the ability to cope with short term challenges. Another big gap is the need to have coherent policies and strategies across sectors and the need to bring together coherent and sustainable visions in the water sector as well as in the energy and food ones. We cannot think of water without considering rural development, energy, food, and so on.

ENVIRONMENTALISM FROM BELOW: Local and Municipal Politics

13

Changing Conceptions of Environmental Politics in Tunisia

Intissar Kherigi

It is important to situate the environmental question in Tunisia within the history of the country's political institutions. These were characterized, since independence in 1956, by one-party rule and a regime based on the fusion between party and State from the national level down to the local level. The ruling party operated as "the center of gravity of the state" (Debbasch and Camau, 1973, p. 62), with State institutions accountable to the party and fulfilling their functions "within the framework of the policy lines defined by the party" (Camau, 1975, p. 8). For example, the 'omda and mo'tmad, local public officials named by the Ministry of Interior responsible for security and development functions, were chosen from the local ruling party cell. This allowed for an integrated system of downward supervision and surveillance of the local population, and upward transmission of information.

The theme of "the environment" was instrumentalized by the former regime to improve its image abroad. At the same time, the environment was consistently defined in regime discourse very narrowly, restricting it strictly to depoliticized issues of "cleanliness," "public hygiene," and improving the appearance of urban areas. Such environmental issues were frequently packaged as part of a discourse on "local democracy" and "participation" aimed at an international audience, to demonstrate the regime's openness and simulate the semblance of reform. For instance, neighbourhood committees introduced in 1991 to bolster the regime's presence at the local level were tasked with assisting municipalities with maintaining "cleanliness and public hygiene." In a speech at the first national conference of neighbourhood committees in 1992, former President Ben Ali emphasized the committees' work as being "protection of the environment, guaranteeing the cleanliness, hygiene and the aesthetic of our towns and neighborhoods… and raising citizens' awareness of the civic role that falls on them and that constitutes the foundations of the project of civilization that we are working to realize since the Change" (March 1992, quoted in Berry-Chikhaoui, 2011, p. 33). However, as Kahloun (2013) notes, environmental programs supported by international donors such as Agenda 21 soon collided with the contradiction between the rhetoric of local democracy and participation on environmental issues, and the reality of authoritarian rule, producing a form of cosmetic participation initiated top-down by the State and international donors.

Since the 2011 revolution, environmental issues have become highly visible as the "environment" has come to be more broadly defined and mobilized in a wide range of issues and sectors. From being narrowly defined as encompassing only "cleanliness and public hygiene" under the former regime, the notion of environment has become a central one in a vast plethora of environmental claims in which the environment is defined as being connected to a wide range of issues affecting human communities, livelihoods and well-being, and framed within a rights-based framework in which environmental rights are intimately connected to other human rights such as the right to life, health and decent working conditions. A range of environmental campaigns have emerged that have largely been led by local groups and new collectives established since 2011. Examples include local campaigns to shut down landfill sites that do not respect national and international environmental norms in Djerba, Agareb and Borj Chekir (TAP, 2020). Other claims relate to long-running environmental grievances, such as the pollution of the Gulf of Gabes, home to the only coastal oasis in the world recognized as a UNESCO natural heritage site. Here, the Groupe Chimique Tunisien (GCT), a public company, has been pouring waste from phosphates processing into the sea since the 1980s, causing serious damage to health, marine life, air pollution, and local agriculture (Lac, 2019).

A similar campaign has taken place in Gafsa against the GCT's industrial complex in the region. This has mainly consisted of strikes, protests and shutting down of production. However, in 2020, an innovative method was used, involved legal action against polluting companies. The Municipality of Mdhila in the Gafsa Governorate launched a legal case against the GCT for illegal operations on the grounds that they lacked the necessary legal authorisations, and for failing to respect national and international environmental norms (FTDES, 2020). Such action represents a new strategy being mobilized by local activists, using provisions within existing law and in the new Tunisian constitution. Indeed, environmental claims are increasingly framed in the language of citizens' right to a sound and healthy environment, making reference to article 45 of the 2014 constitution, which requires the Tunisian State to guarantee the right to live in a healthy environment.

Indeed, these latest environmental claims demonstrate the broadening of the notion of the "environment" and the right to a

healthy environment to a transversal right that is essential to the enjoyment of other basic rights. The environmental claims at the heart of the various campaigns since 2011 mentioned above are framed not only in relation to the impact on the environment but also as violations of human rights based on the serious impact on health, marine life, air pollution and socio-economic rights due to the resulting decline in livelihoods caused by the impact of polluting industries and landfill sites on local farming, fishing, and tourism. These campaigns also raise issues relating to socio-economic rights linked to the lack of protection for workers in highly polluting industries and the use of subcontracting to avoid legal obligations to provide social insurance, bonuses, and protections linked to high-risk activities. They also frequently address issues of territorial inequalities, making demands for special compensation and development funds for affected regions. Thus, environmental claims are not framed as being solely about environmental harm but are being mobilized in a range of different local struggles and framed as encompassing a broad range of rights that bring together a diverse spectrum of groups and organizations.

In fact, local activists often connect their environmental claims to the operation of the broader economic and developmental model, which places their territories in a subordinate position in a predatory economic system that extends from the global down to the local level. In this discourse, environmental injustices are closely linked to a developmental model that produces territorial injustice. For instance, in 2016, the local section of the Tunisian League for Human Rights (LTDH) in Gabes made an application to the Truth and Dignity Commission to have the region awarded recognition as a "victim of pollution" as part of the transitional justice process introduced after 2011. Local activists demanded reparations from the State for the harm suffered by the region due to the GCT's operations and criticized the State's choice to situation the complex in Gabes for destroying its touristic potential while the State developed tourism in other coastal regions. This illustrates how environmental and territorial injustices intertwine in local narratives and give voice to historical grievances regarding the developmental choices made by the central State and demands for a review of the entire developmental model.

However, the local campaigns that have emerged since 2011 regarding environmental issues have revealed the existence of significant challenges and obstacles to social mobilization around such causes, despite the expansion of freedoms in the country. In the case of the campaigns against the closure of landfill sites, for instance, systemic corruption and interest networks involving local actors, national authorities and foreign companies have proven a hindrance to local environmental activism (Salman, 2021). Local activists and residents have been hesitant to take on these networks, aware of the significant power imbalance they face when taking on influential domestic and foreign economic interests. Local environmental activism also faces the challenges of post-authoritarian legacies of lack of trust, weak civil society in some areas, and the relative novelty of environmental campaigns and movements.

This being said, Tunisia is witnessing the establishment of "environmental" issues at the heart of local and national politics, involving broader claims regarding socio-economic rights, territorial justice, and a change in the development model. Environmental campaigns are largely localized, with the local level becoming an important arena for exercising political agency, forging new mobilizational strategies and challenging the current developmental model and patterns of State-society relations. These campaigns focus not only on specific local issues but highlight the defects in the national developmental model and the State's lack of coherent policies to protect the right to a healthy environment and associated rights as well as the failure of State institutions to pursue the national and public interest, crafting policies and programs instead in line with private interests and international donor programs that are often inadapted to local needs.

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Bringing the Local Back In:

Solid Waste Management in Tunisia*

Chiara Loschi

This paper includes research outputs presented at the 2nd annual conference of the Yale Program on Governance and Local Development "Service Provision in a Changing Arab World", Yale University, April 9-10, 2015, and at AIMS 2017 Annual conference in Djerba, Tunisia, July 7-8, 2017. This research was supported by Program on Governance and Local Development, Yale University (dir. Prof. Ellen Lust), and the Institut de recherche sur le Maghreb Contemporain.

The 2011 Arab uprisings brought to the fore the mounting inequalities and political processes at local level. Decentralization is not merely an administrative management of states' responsibilities and the application of the "good governance" model. Before 2011, Local authorities and solid waste management (SWM) in Tunisia had an important role in deepening authoritarian rule for quite a while; however, as 2011 upheavals demonstrate, the dust could not be swept under the carpet for a long time.

As in most Middle East and North Africa (MENA) countries, subnational governments in Tunisia are organized following two rationales: decentralization and deconcentration. The latter is typical of French administrative codes and solidifies the supremacy of governors/prefects over municipal councils. The deconcentration rationale is represented in the governorates, delegations, and sectors, all of which have been the articulation of the ruling party at the local level since Tunisian independence. Local governance with reference to SMW reforms emerged in two phases before 2011. The first occurred during Bourguiba's regime around 1975, with the establishment of the organic law for municipalities (Municipal Organic Law no. 1975-33) and the second started after the implementation of new public management (NPM)-like reforms in the 1990s, during Ben Ali's regime. In 1975, the reforms focused on municipal services delivery and the reorganization of state subsidizations and local electoral law. At this stage, decentralization (in Arabic *Al-Lamarkaziyah*), seemed to overlap with anything that did not relate to the centre.[1] In the context of economic crisis in the 1980s, international financial institutions designed the introduction of structural adjustment loans (SALs) in developing countries based on the three pillars of economic reform: 1) stabilization, 2) structural adjustments and, 3) privatization, including institutional reforms or institution building reforms to achieve the 'good governance' model.

After the removal of Bourguiba, the relations between Tunisian government and international donors grew closer. The World Bank negotiated with Tunisian government an institutional strengthening process in the frame of Municipal Development Projects (MDP), a standard model to support reform of local institutions, and supported three Municipal Development Programs from 1992 to 2014. In parallel to this, USAID, with its Regional Housing and Urban Development Office (RHUDO), and the Tunisian government approved in 1993 a loan for a Municipal Development and Finance Program and the Local Government Support Program as a part of Housing Guaranty Program (HG) loans. As a result, the judicial framework was partially reformed: municipalities were charged with rubbish collection service in 1995; at the same time, donors supported the introduction of a waste treatment law in 1996 (law n° 96 -41, 10 June 1996), which established ways to collect and stock solid waste. Related to that are the creation of the Borj Chekir landfill in the low-income neighbourhood of Sidi Hassine in the early 2000s and the establishment of the national waste management agency, the "Agence Nationale de Gestion des Déchets" (ANGED) in 2005. ANGED was tasked with providing both technical support and equipment to municipalities in setting their waste management plans and tender documents, as well as releasing authorization to private firms for solid waste treatment (decree n° 2317, 22 August 2005). As a result, ANGED controlled the whole chain of SWM.

Despite these reforms, decentralization continued to be strictly controlled by the regime. Municipalities, targets of the MDPs, did not have administrative competence over all the territory in the governorate (some parts were directly administered by regional councils) and were still under the supervision of the Interior Ministry through its Direction Générale des Collectivités Locales (DCGL), governors, and regional councils. The Interior Ministry could directly appoint governors both formally and informally to oversee municipal governance or to control citizen grievances on local pollution and inefficiencies. Municipalities and local councillors were just the last branch of the bureaucratic apparatus under the prevailing deconcentrated administrations and the regime's instrument to control resource allocation and development strategy.

After Ben Ali's dismissal, the environment became one of the main topics in the Tunisian political agenda. In 2016, the

Directorate General for Local Affairs (DGLC), which oversees the municipalities and previously housed under the Ministry of the Interior, was moved to the newly created Ministry of Local Affairs and the Environment. In parallel, many civil society organizations came up and organized as non-governmental organizations (NGOs) to consistently put pressures on the government and advocate for stronger environmental justice, better waste management, and to improve citizens' quality of life.[2] However, political parties and governments are still far from developing strong well-informed environmental agenda and substantial change in the sector governance, and they pursue temporary and fragmented resolutions (such as the creation of new ministries) to display problem-solving capacity and a sort of green-washing. Before 2011, environmental protection was controlled by the Ben Ali regime; in addition, as Salman points out, environmental discourse was framed more as a "personal moral responsibility rather than a societal political-economy question related to patterns of consumption, […] and ways of disposing of the produced waste".[3]

While the dust has finally come out from under the carpet, institutional and discursive path dependency are hard to break. While citizens' activism is a persistent new pattern, it is hard to see a change in the political discourse, with elaboration of strong accountability mechanisms in environmental justice. Scandals around solid waste management in Tunisia emerge since 2015. The last occurred in November 2020 and involves, among others, Mustapha Laroui, former Minister of Environment and Local Affairs, who resigned from his post on suspicion of corruption, as well as the director of ANGED, also resigned, concerning the transfer of 282 containers equivalent to 480 tons of Italian waste from the Italian port of Salerno to Tunisia via the port of Sousse through a private entrepreneur with a formal authorization by ANGED and who is now missing. The Tunisian system is hard to reform and Tunisian SWM management is daunted by venues for corruption both at national and international level.

Endnotes

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Local Understandings of "the Environment" in Three Tunisian Municipalities

Lana Salman

This note has been adapted from the report "Environmentalism After Decentralization: The Local Politics of Solid Waste Management in Tunisia" available on ARI's website.

How do financially and administratively constrained municipalities address the issue of solid waste management (SWM) as an environmental concern in their day-to-day operations? Through a focus on the three coastal municipalities of Nabeul, Maamoura and Agareb, this note investigates municipal administrators' own apprehension of "the environment" as an entry point to understanding challenges municipalities face in SWM practices. Given recent decentralization reforms which give municipalities ample room to intervene in environmental protection, and the role of civil society organizations (CSOs) in environmental activism post-revolution, the examples suggest that although SWM is a multi-scalar problem, municipal staff's own understandings of "the environment" is key to redressing the environmental harm emanating from failed SWM policies.

The rest of the note proceeds as follows. The first section provides a short context about Tunisian citizens' environmental concerns as well as decentralization reforms touching upon environmental protection. The following section explicates the municipal politics lens adopted in this inquiry. Following are three different understandings of "the environment" from Nabeul, Maamoura, and Agareb which contribute to explaining differences in SWM management strategies in the three localities.

Context

Trash represents an environmental concern for Tunisians across the board. Asked how they view problems of trash, water pollution, air quality, and climate change in Wave 5 of the Arab Barometer, 70% of Arab citizens considered water pollution to be the most serious issue, followed by trash identified as such by 66% of the respondents. These numbers are higher in Tunisia, where 77% of the respondents view trash as a very serious problem.

Citizens perceive SWM as a local issue. When piles of garbage rot on street corners, citizens blame their municipalities for under-performing. Local governments are essential to a smooth functioning SWM chain. Littered streets uncover dysfunctional governance, literally translating problems of SWM into repugnant visual scenes. Local Governments' Organic Law (Code des Collectivités Locales, JORT law No. 29 of 9 May 2018, henceforth CCL) determines municipalities' roles and responsibilities in SWM under the broader umbrella of preserving the environment, cleanliness, and sustainable development.

On paper, the CCL's legal provisions related to the environment give municipalities ample room to manoeuvre, but the articles remain unclear in terms of definitions and mechanisms. First, municipalities have wide-reaching responsibilities in terms of sustainable development and environmental protection. For example, articles stipulate that local development should respect principles of sustainability with mechanisms such as the ability to tax polluting activities, and to enforce these provisions using the environmental police. However, in practice, it is unclear whether municipalities use their powers to punish polluters, since enforcement of such provisions is often challenging. Second, none of the articles define what "the environment" consists of; as a result, the articles lump together environment, cleanliness, and public health. This is not only a matter of definitions, since the same committee who manages "the environment" is also assigned the responsibilities for SWM and public health. Finally, the only article which specifies municipal SWM responsibilities refers to a separate law, Law No. 2016-30 of 5 April 2016.

A municipal politics lens

Methodologically, this note adopts a municipal politics lens. It consists of three case studies: Nabeul and Maamoura (governorate of Nabeul), and Agareb (governorate of Sfax), documenting practices of SWM, municipal staff's attunement to questions of environmental sustainability, and the role of environmental civil society organizations in these localities. The three cases, summarized respectively as the good governance case, the feel-good case, and the toxic case, illustrate the constraints under which municipalities manage environmental concerns in the SWM sector. These examples show how differing understandings of what constitutes "the environment" influence municipal decision-making and sets activists apart from municipalities. While municipalities see environmental problems as either technical and purely related to cleanliness or a matter of jurisdictional responsibilities, for activists, environmental harm is embodied – it affects their health and bodily integrity.

Good governance in Nabeul

In Nabeul good governance in SWM is contingent upon the presence of skilled technical staff whose definition of "the environment" is a scientific one. They have expertise in the sector, but also a broad understanding of what constitutes a healthy and sustainable environment. In light of municipal administrators' tense relations with elected municipal leadership, technical personnel in woefully understaffed municipalities perform their duties under budgetary and organizational constraints. The staff member responsible for SWM at the municipality of Nabeul was a highly skilled technocrat. He distrusted the elected local council and criticized what he perceived as politicized local governance. Without acknowledging it, his position as an expert made him skeptical of politics and of more open governance systems, including participatory mechanisms which are part of the decentralization reforms reconfiguring local governance post-revolution. Wary of citizens' participation at the local level, it is unsurprising that he did not mention civil society organizations or activists, except when speaking of donors and bilateral agencies. One interpretation for the reason activists were absent from his comments is his definition of the environment. Activists on the ground were not on his radar precisely because his definition of the environment was technical, and its management the purview of expertise which should not be subject to popular consultation.

Feel good in Maamoura

In Maamoura, the prevailing definition of the environment is a hygienist one focused on cleanliness. Despite it being known for pioneering environmental awareness-raising campaigns in collaboration with civil society organizations, the municipality's capacity to approach SWM holistically is hampered by weak central level policies for recycling and landfill management. The "feel-good" classification is a qualification of three elements: (i) the triumphant efforts of the municipality to clean and permanently close an unregulated dumpsite that had become too close to the town's built-up perimeter; (ii) the collaborative (rather than confrontational) relationship with civil society organizations; and (iii) the limited structural effects of such efforts where, after sorting at source, some of the waste is again mixed up and transported to the landfill in Menzel Bouzelfa for burial. It shows the limits of municipal efforts at environmentally sustainable SWM practices when there is no institutionalized national strategy framing and organizing these practices up the chain.

As municipal staff indicated, CSOs in Maamoura are active, especially in environmental sustainability. After the 2011 revolution, in collaboration with these CSOs, the municipality installed containers for the collection of plastic bottles. More recently, a CSO worked directly with households to distribute black and green trash bags for organic and non-organic waste. The CSO piloted this project with one neighbourhood in 2018. When we asked how the project evolved, our interlocutors could not provide an answer, stating that the municipality did not provide any budgetary support. Instead, it provided in-kind labour, transporting the separated waste to the landfill. This example demonstrated that an active civil society alone cannot produce any meaningful changes in SWM practices when working with municipalities that not only lack the financial and human resources to capitalize on these projects but that have also been burdened with additional responsibilities because of decentralization reforms. Given scarce resources, collaborative efforts between CSOs and the municipality are bound to remain limited to "feel-good" effects.

Toxicity in Agareb

At the municipality of Agareb, "the environment" was a disembodied problem that existed out there and over which the municipality had little control. The municipality of Agareb is home to El Gonna, the second largest landfill in Tunisia after Jebel Chekir in metropolitan Tunis. El Gonna is a source of toxicity. Although it collects the waste of the governorate of Sfax, the effects of this toxicity are born primarily by the inhabitants of Agareb. The latter, who die because of mosquito stings, such as the example of Amal Ben Ibrahim in 2019, suffer from disproportionally high cancer rates and many women report problems of infertility and where babies are born with birth defects. This toxicity galvanized the civil society campaign Manish Msab or "I am not a landfill".

Sami Bahri, one of the main actors in Manish Msab explained

"We opted for different forms of contestation. We did not burn tires or block roads. We made art instead. We are artists. And we used our networks to speak to journalists, to go on TV in an episode of Al haqa'eq al Arba'a (the four truths), for example, and worked with NGOs that championed our cause."

In the course of our conversation, Sami insisted that he is no environmental expert: he didn't understand toxicity levels, soil composition, the depth of the water-table, or the standards of industrial filters which should be installed for all the factories spread across Agareb. For him, toxicity was a crime, its consequences experienced every day: foul smells, disfigured newborns, young women struggling with infertility, neighbours and kin dying of cancer. The environment was under his skin and the skin of those he loved. The environment was the intoxicated hometown where he lived, the air he breathed, the water he drank, and the food he consumed.

The municipality of Agareb and its civil society disagreed about their approach to the problem of the El Gonna dumpsite. The municipality's solution followed standard technocratic procedures. Municipal staff raised the question of conflicting institutional mandates and lack of support from centralized entities, including the governorate and concerned line ministries. To Sami's question "why us," why a landfill for the entirety of Sfax governorate in Agareb, Hani provided a technical answer unrelated to the disposability of certain bodies at the expense of others. His technical answer pertained to the non-permeability

of Agareb's clay soil. As he conveyed to us "the landfill here is not purposeful," but rather an appropriate choice given the nature of the town's soil. Despite Hani's politically accurate assessment of the landfill problem as one of powerful polluting industrialists for whom El Gonna is vital, his approach was, to this researcher, shockingly depoliticized. It displaced agency onto an amorphous, gargantuan bureaucracy that a small municipality can do very little to oppose. One possible explanation for this gap, between the assessment of the problem and the response to it, is the difference in defining what constitutes "the environment". For municipal officials like Hani, the problem of the landfill remained a disembodied one because the environment exists "out there". Whereas for Sami and other environmental campaigners, the environment is something they ingest. It makes them sick; it threatens the integrity of their bodies and the bodies of those they hold dear. Fighting for a healthy environment then becomes urgent, even if, as Sami mentioned, the fight against the state is insurmountable.

Conclusion

The three cases explored in this note as the good governance, feel-good, and toxic cases illustrate the practical challenges that municipalities face in addressing environmental problems resulting specifically from SWM. At its extreme, in the case of Agareb, the landfill caused toxicity, which threatened the bodily integrity of Agareb's residents. Manish Msab was the environmental justice campaign levelled against such toxicity. Agareb's municipality was supportive of the campaign, but in practical terms did very little to fight on behalf of citizens for radical solutions to environmental problems.

20 Local Authorities and Solid Waste Management in Lebanon

Between Promises of Empowerment and the Challenging Politics of Stabilizing Complex Socio-technical Systems

Jihad Farah

Local authorities in Lebanon first started to be consistently confronted with environmental issues during the period of the civil war. One of these issues is that of solid waste management (SWM). Up to this point, low demography, frugal modes of consumption, and largely organic waste kept SWM as a "non-issue" that did not greatly concern local authorities. Even larger cities, like Zahle for example, were content to dump their limited waste quantities in an empty lot in the periphery of the city. This changed in the civil war period with urbanization spreading in many regions and destruction waste becoming a major problem to be dealt with. This is how the huge "waste mountains" of Bourj Hammoud and Normandy in Beirut area or that of Saida started to develop. After the civil war, even greater urbanization and changes in modes of consumption set the issue of solid waste at the top priority of local authorities' concerns.

One must understand, however, that while SWM is given much attention by local authorities, it is rarely seen by them as an object of environmental policies – i.e. to be approached in systemic relation with issues of water, biodiversity, forest conservation, climate change, etc. SWM is primarily associated in the mind of local authorities' decisionmakers and administrators with issues of cleanliness and health. It is part of the hygienist mission given to local authorities and instituted in the Lebanese system during the French Mandate. In fact, local authorities' representations of environmental issues are still largely dominated by the idea of "greening" in urban areas and the protection of exceptional natural resources (forest reserves, etc.) in more rural areas (Farah, 2013)

In the postwar period, SWM became for the first time an object of central institutions' policies, especially for the areas of Beirut and Mount-Lebanon (BML). The Council of Development and Reconstruction, with the support of the World Bank, pushed for the establishment of large SWM facilities as the recycling and composting center in Qarantina and the incinerator of Amroussyeh. The latter in particular was the object of controversy and mobilization by local communities fearing its fumes and was eventually burned by an angry mob. It is in this context that local authorities in Beirut and Mount-Lebanon were dispossessed of their SWM responsibility and a contract was awarded to a private company close to the Prime Minister, Sukleen, to collect, treat and dispose of municipal solid waste. The contract was paid by local authorities through the Independent Municipal Fund (IMF) . Hence, after being a major blight in Beirut in the civil war period, SWM became "blackboxed" by Sukleen, who rendered it "invisible" by arranging for a huge sanitary landfill in Naameh in the far periphery of the Beirut agglomeration to receive practically half of Lebanon's waste for 20 years. This very lucrative contract was, however, also a major source of complaint by local authorities as it swallowed considerable portions of their budgets. The Waste Crisis that followed the closing of the Naameh landfill after it was oversaturated in 2015 has led to a spectacular opening of the SWM black box. Images of piles and rivers of waste from Beirut circulated the globe. It also led to some of the largest mobilizations in Lebanon's recent history. Deficiency in SWM was associated with corruption and spoliation through postwar neoliberal policies to the benefit Lebanese sectarian system's "overlords". However, citizen mobilization faltered due to internal schisms and the capacity of sectarian political actors to regain the upper hand by dismissing Sukleen and calling for new tender bids on one hand, and by recognizing a larger role for local authorities that wish to engage in SWM, on the other.

Many local authorities in BML areas hence joined those outside this area that had been tinkering with solutions to deal with SWM for some time; you could observe the rapid growth in the number of local authorities that came to engage in one way or another in SWM. While much of this engagement took the form of local authorities organizing the collection of recyclables and selling them to specialized recycling networks, more than fifty engaged in setting SWM treatment and disposal facilities including secondary sorting, recycling and composting units, waste-to-energy, and landfilling. This was greatly helped by international development and humanitarian funding – SWM was regarded by humanitarian agencies as key issue for social stability in Lebanon. However, beyond funding opportunities, one must recognize that what pushed many local authorities to engage in SWM is a belief that their success would enhance their legitimacy as capable administrators and representatives of the population in the face of their marginalization by now contested and deficient central authorities.

In a research I have been conducting with Eric Verdeil since 2017, we were particularly interested in the dynamics linking local authorities' governance and SWM in Lebanon. For this, we adopted a Sociology of Public Instruments analysis approach.

Hence, we looked into instruments central to SWM by local authorities in Lebanon such as solid waste collection and treatment contracts and relations to the private sector, financial mechanisms, modes of public engagement, land-use policies, and the definition of waste collection perimeters for nearly fifty local authorities that were involved in setting SWM treatment and/or disposal facilities. We then analyzed how different assemblages of these instruments had impacts in different local authority settings on the build-up of the legitimacy of these local authorities' governances, on the emergence of new spaces of complementarity and cooperation at the local and regional levels, and on the relation with central authorities. The examples of Zahle, Saida, and Bikfaya in the way they addressed SWM are particularly interesting in this regard. In fact, they represent different types of governance and technological choices.

The municipality of Zahle, a large city in the rural Bekaa area, has been dominated by the personality of its mayor, who presents himself as a technocrat and distances himself of partisan politics. Being outside BML, Zahle had to face the issue of SWM early on. When elected in 1998, the mayor and his council pushed for solving this challenge by buying a large plot of land in the far periphery and setting up a recycling and composting facility, as well as a sanitary landfill and closing the old dumpster. This was largely possible due to financial support of international organizations and close oversight of the private contractor operating the facilities. The main feat, however, is that the municipality was able to cut down on costs allowing for many poorer municipalities in an area socially and politically fragmented along sectarian and partisan lines to use the landfill while, in other areas, NIMBY attitudes towards SWM were a source of communitarian and political tensions. However, with the saturation of the landfill expected in 2024, there is major concern related to the sustainability of this solution.

The case of Saida, a coastal city in South Lebanon and also outside BML, represents a quite different situation. Here, we have a municipality leadership strongly affiliated to the Hariri family's political and business networks. The SWM solution was hence central to their municipal campaign and included the dismantlement of Saida's Waste Mountain and its transformation into a park, as well as the establishment of a 40M USD recycling, composting, and waste-to-energy plant in a PPP associating the municipality to a local business tycoon affiliated to the Hariri clan. With the support of Saudi funding, the municipality managed to do what it promised. However, serious challenges faced the plant's operation. First, with the incapacity to generate grade A compost, the financial model of the plant was challenged. Hence, the initial promise of the investor to take all Saida's and its surroundings' waste and treat it for free was dropped and a 90$/ton fee was requested for entering waste. It also meant that it had to bring more waste from other areas. Second, with the absence of a landfill and with the closing of an industrial plant in the Bekaa that used to take the refuse waste, waste accumulated again near the plant. This provoked nuisances and odors, controversy and finally protests to close the plant.

Bikfaya engaged in SWM in the context of the Waste Crisis. In this mid-mountain Matn town, stronghold of the Kataeb sectarian party, waste was accumulating in the street. Local militants, mostly associated with the party, began to develop a recycling solution to minimize waste. This is based on the creation of an improvised recycling plant (the plant shell is an old UN Corps huge tent, some machines were paid for by sympathizing local industrials, etc.) and a sorting from source campaign. In 2016, the leader of this movement became mayor and aimed to include other municipalities in the area in this operation. In fact, the Kataeb party wanted to use this SWM as a showcase for their advocacy for more decentralization on one hand and to expand their powerbase in the larger Matn area on the other hand. As it lacked a landfill, the municipality wanted to move towards a new generation incinerator for the refuse material and expand its operation to include 15 municipalities. However, its shaky IMF-dependent finances and its irregular transfers meant that the project did not develop further. Nevertheless, recently, more municipalities in the area are sending their recyclables to Bikfaya plant.

We can see in all three cases the complex interlinkages between municipal SWM and municipal governance in Lebanon today. Moreover, while the path of local engagement in SWM might be alluring for local authorities and governances aiming to assert their legitimacy and powerbase, it is clear that it is a risky complex path. SWM technologies are complex and difficult to stabilize. Hence, beyond micro-systems at the level of villages, they require building geographical and institutional assemblages and the ability to regularize their relations through funding mechanisms, reliable contracts, operational flexibility, smart land-use policies, and strong managerial oversight. Nevertheless, and despite the fact that no truly sustainable solution has been successfully developed at the local level in Lebanon, more and more local authorities are choosing to move in this direction. It seems that, for many municipal entrepreneurs, the promise of empowerment through SWM still overcomes the cost of inertia on their image when waste accumulates in the streets, is burned on the hills, or is dropped in valleys and rivers.

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Urban Waterscapes in Egypt

Noura Wahby

The perspective I take specifically looks at questions of the local environment through the lens of urban political ecology, and in particular urban waterscapes. Inspired by the questions of the panel, I will focus on two conceptual claims: first on the production of scarcity and how we can see this at the local level; and second how we can expand our definition of grassroots environmental movements.

To provide some general context, the MENA region is one of the fastest urbanising regions globally. Egypt in particular has had a long history of migrant movement to the cities, which has recently abated. But today the building of the deserts has expanded metropolises like Cairo beyond the traditional confinements of the city limits to encroach and capture nearby deserts and agricultural lands. This has meant that the urban has become one form of the production of environment and the production of nature, grounded in some of the theoretical work developed by Neil Smith. Following this understanding, urbanisation can be seen as a socio-spatial process of the morphing of nature, which is continuously being produced by the shifting alliances of social relations within society. As these processes are dependant on the social and, for many countries of the region, the State specifically, 'unevenness' is a sure outcome in this type of development due to the frequent choices of the State to side with powerful actors, such as global capital and certain class alliances. And this 'unevenness' appears in both the process of urban development and the production of nature itself.

As processes of production become more sophisticated, like the financialisation of goods and services, these processes require the creation of new markets of common goods like land and utilities. These markets in turn require scarcity to function, and if scarcity does not exist then it must be "socially created", as scholars David Harvey and Erik Swengedouw have argued. The construction of scarcity in the utilities sector has been largely prompted by international donors, who promote programmes for the commodification of these resources. For instance, in Egypt under Mubarak in the early 2000s, there was a corporatisation of the water companies by province pushed by USAID and the World Bank. This was not a full privatisation programme, but it was a key move towards the standardisation of pricing water and formalising distribution in all off-grid areas. Thus, as markets are created to deal with a constructed resource scarcity, States and modern institutions are implicated in strategies of 'accumulation by dispossession.' Recent forms of economic growth are predicated on this type of accumulation that centres on privatisation, financialisation, and, in Cairo's case, fierce corporatisation.

Local scarcity

In the distribution of water in a vast metropolis like Cairo, there has been a conscious attempt by the local government to prioritise the water demands of the elite satellite cities on the periphery of the city rather than supply the over 1000 informal settlements that house most of the lower-income sectors of society. So, for instance, the establishment of infrastructure in these new elite areas accounts for 22.2% of the total Ministry of Housing's (MoH) budget for the whole country between 1997 and 2002. In my research, I examined two such settlements on the North-Eastern periphery of Cairo, one informal area Ezbet Elhaggana and another elite settlement ElTagammo' Elkhames, which consists of villas and gated communities. I traced the experiences of residents particularly in dealing with water shortages, which were especially prominent in both the decades prior to and following the 2011 uprisings. It was obvious that there was a clear rationing of water to these informal areas in order to direct more supply to the elite 'green hills,' as the residents called them. If residents of informal areas protested, made demands on the state, chased water bureaucrats out of the area, and caused any kind of noise, these shortages were sometimes cut short and water re-established. Ultimately, however, these areas remained off from the government's priority list of water connections.

The purposeful neglect and political choices by the state in this case shows the social construction of the notion of scarcity, which may or may not materially exist in the physical sense. The discourse of scarcity remains a powerful tool in the arsenal of the state to disposes and disempower certain communities and make the moral and political decisions as to who deserves water and who does not.

Environmental justice, spatial justice: Nature and the city

I posit that our definition of 'environmentalism from below' should include urban residents' everyday experiences and struggles with their own definition of the environment. I argue that there has been a much more bourgeois understanding of

'environmentalism' in the mainstream literature on movements in the Egyptian context. To do so, I will look to the notion of 'bourgeois environmentalism' from Indian scholar Amita Baviskar, a notion that focuses on how elites have co-opted green movements for certain classes and imposed their own understandings of what the environment is. There has been a recent increase in this type of environmentalism in Egypt, promoted by the state and co-opted by elites, such as upcycling and cleaning up the Nile.

While it is important to understand the environmentalism of elites, which in itself is derived from the state and global networks of expertise and cultural capital, we must also expand our notion of environmental movements to include the actions of the urban poor. This is in relation not only to 'elite' environmental issues but also in terms of everyday basic needs and struggles that are coproduced in relation to the urban environment. I think it is important to realise how these localized grassroots forms of contention against state damage and negligence in Egypt are being undermined by a particular definition of nature put forth by middle classes and co-opted civil society movements.[1]

Urban Political Ecology scholarship has been deeply engaged with these notions, and one way I have found useful to dismantle the myth of scarcity and expand our conceptualisation of what are and what are not movements, and what constitutes the grassroots or the 'below', is to look at community-led initiatives and everyday negotiations that both residents in informal areas and elites use to gain access to water. This line of scholarship is probably all too familiar for practitioners on the ground that witness first-hand these pluralised, fragmented, and – for lack of a better word – 'informal' systems of gaining access to resources like water. These are clear from my research in Cairo's two settlements, the extra-legal pipes that communities install, bribes from businessmen to officials in order to secure special water quotas, or community managed water lines, among others. Grounded research in Egypt and beyond has greatly broken down the illusion that the State has a monopoly over distribution, whether it is due to privatised governance in elite areas or community governance in informal areas.

While water sources are mostly controlled by the State, I argue that this is where the authority of the State ends and the local takes over. It is essential to highlight that communities are already developing, implementing, and maintaining everyday solutions to environmental negligence and damage themselves. It is these hidden organisational strategies, social networks, and social relations of the everyday that are reshaping power dynamics in accessing resources like water. Ultimately, these local interjections are one form of contention as communities reassert their relationship to nature, which has historically been severed by the State and technical expertise and reclaim citizenship rights in the city. This leads towards an environment from 'below', as per my panel's title.

It is necessary to bring a more intersectional approach to looking at the local environment in our cities by highlighting the different dimensions at hand such as the social, urban, environmental, and political economy factors at play in relation to land and water. These resources are inherently both produced by and coproducing the social and structural relations that determine just and equal access for all urban citizens.

Endnotes

1 I refer to this in greater detail in my chapter "Egyptian Environmentalism and Urban Grassroots Mobilisation", in Elia Apostolopoulou and Jose A. Cortes-Vazquez (ed.) The Right to Nature: Social Movements, Environmental Justice and Neoliberal Natures. Routledge, 2019.

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Local Communities and Climate Challenges

Khaled Sulaiman

Climate change, albeit global, has direct implications on the populations and livelihoods of the most vulnerable countries in terms of geographical location, nature, natural resources, sustainability of available resources, and means to address the risks resulting from ecological degradation. Even if atmospheric carbon dioxide levels are reduced to zero by 2050, the global temperature will reach 1.5 C, thus putting the MENA region further at risk of environmental degradation, especially considering that it contains large arid and desert areas. Furthermore, several regions have been facing serious challenges in terms of water scarcity, rising temperatures, and desertification expansion. In Iraq for instance, government data indicates that approximately 39% of the country's surface has been affected by desertification, while other vast areas may cease to be agriculturally viable due to salinization. This situation is not the result of high temperatures or desertification. It is rather due to the giant dams built by Turkey and Iran on the headwaters of the Tigris and Euphrates, two historical rivers considered to be the lifeline of Iraq. These dams have caused a significant decrease in water flow in both rivers, leading to the rise of the salt tongue in the Gulf and its expansion towards the upper Shatt al-Arab in the southern regions. Another reason is the rapid population growth, with Iraq being one of the Arab countries with the highest demographic growth rates. The country's population (38 million people) is expected to reach 80 million people by the middle of the century, an increase which will be accompanied by greater demand for water, energy, food, and work.

These factors combined will affect economies and may lead to internal or cross-border migration in some regions either in search of livelihoods or as a result of heat and rising sea levels. In fact, rising sea levels provide a good example for the close link between the global nature of climate change and its direct impact on the economy and public health in regions that may only contribute minimally to greenhouse gas emissions. Should the glaciers continue to melt, and the sea levels continue to rise simultaneously, vast areas in Iraq will sink, as will areas on the Lebanese coast and the city of Alexandria in Egypt. States and policy makers must therefore provide space for scientists and experts to be involved in decision-making processes that will shape the future. In fact, the future of the MENA region will remain uncertain if scientists and local scientific expertise are not involved in environmental policymaking based on IPCC recommendations on climate change, emissions reduction, and ecosystems recovery aimed at protecting biodiversity in light of the decisions and recommendations of the 2010 Aichi Convention.

The key issue for most Arab countries in terms of the role of local communities in the climate-related decision-making process lies in these absent communities, which end up just waiting instead of actively engaging. This is despite the fac that they have historically displayed an innate ability to address problems by dealing with their nature and environments.

In most Iraqi areas during my fieldwork, I kept noticing the lack of knowledge among local communities regarding climate change, as they did not have sufficient knowledge about the changes they are experiencing. The majority of community members only use short statements to describe their reality: the weather has changed, the temperature has increased, there is less water. They often do not distinguish between weather and climate. They forget the drought during rainy seasons. If this is an indication of anything, it is of a lack of awareness of the changes in the climate. This issue requires educating local populations about what is happening around them, especially by emphasizing that they are among the main groups affected by climate change and environmental degradation. Moreover, introducing climate change and subsequent ecological changes in primary education is essential to raise awareness among future generations of the dangers of climate change on livelihoods, the economy, and public health. It would also contribute to figuring out ways to address these changes, develop coping mechanisms, and mitigate the expected damages.

Environmental damage is visible in all aspects of daily life, such as the economy, public health, stability, education, equality, and so on. In fact, in 2018, water pollution led to a major health crisis in Al-Basrah, where more than 120 people, most of whom were children, suffered from diarrhea. In parallel, water scarcity and access in other regions have fueled armed conflicts between clans and tribes, while scores of people have left their home regions in search of livelihoods due to drought and soil salinization. The effects of environmental degradation are not without discrimination and injustice. They could be the result of the adoption of inadequate solutions for environmental issues or the monopolization of natural resources at the source, such as Turkey's hold on water resources thus depriving Iraq and Syria

of their water rights. Based on my monitoring of environmental issues in the majority of Arab countries, such as Egypt, Morocco, Tunisia, Algeria, Jordan, Lebanon, and Iraq, I think it is reasonable to say that injustice constitutes a major part of environmental challenges. People living in estuarine areas or on the outskirts of large cities are bearing the brunt of the "unfair" solutions of environmental issues. For example, in Baghdad, sewage water is discharged into a natural river on the outskirts of the capital. Thus, residents of the riverbanks have been suffering from unprecedented water and air pollution due to rudimental treatment of the Iraqi capital's sewage water. Furthermore, a section of the capital's residents is being spared from heavy water at the expense of the suburb population. This is a crystal-clear example of environmental injustice and discrimination between one region and another, applicable not only in Iraq but in most Arab countries, where natural rivers – a major resource for local economies – are transformed into dumps.

MOBILIZING FOR THE ENVIRONMENT: Activism and Resistance

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Fighting for Environmental Justice in North Africa

Hamza Hamouchene

The ecological crisis in North Africa finds its clear expression in acute environmental degradation, land exhaustion and loss of soil fertility, water poverty, over-exploitation of natural resources, pollution, and disease, as well as effects of global warming such as desertification, recurrent heat waves, droughts, and rising sea levels. This crisis naturally intersects with others, such as the food and socio-economic crises.

The words "environmental activism" do not capture the discontent and resistance taking place in North Africa. I prefer to use "socio-environmental" or "socio-ecological struggles and conflicts". In a sense, we need to reframe the environmental question in order to touch on issues of class, popular sovereignty, re-distributive justice, and what we mean by development.

There is always an ecological element in the struggles I've come across, but that dimension comes secondary to more pressing issues of socio-economic rights. People's environmentalism is not so much about the conservation of exotic species or pristine nature as much as it is a quest for environmental and social justice and a fight against the social exclusion, violence, and authoritarianism of neoliberalism and its elites.

So how do we understand this environmental crisis? It seems to me that we cannot talk about it without grappling with the extractivist model of development imposed on these countries by imperialism since colonial times.

Extractivist development and resistance in the Maghreb

Large-scale oil and gas extraction in Algeria, phosphate mining and water-intensive agribusiness and mass tourism in Morocco and Tunisia are all aspects of an extractivist model of development that is accompanied by disastrous social and environmental consequences, affecting the most marginalised sections in society. Extractivism refers to activities that overexploit natural resources destined particularly for export to world markets. As such, it is not limited to minerals and oil; it extends to productive activities which overexploit land, water, and biodiversity, such as agribusiness, intensive forestry, industrial fish farming, and mass tourism. It is largely incompatible with social justice and plays an important role in the ecological crisis in North Africa. It creates what Naomi Klein calls 'sacrifice zones', areas disproportionately ravaged by extraction and processing, inhabited by people whose bodies, health, land, and water are sacrificed in order to maintain the accumulation of capital.

The various cases against the extractive sector in Algeria (Ain Salah and Ouargla), Morocco (Khouribga, Safi and Imider), and Tunisia (Kerkennah, Gafsa and Gabes), exemplify broader patterns of primitive accumulation in the global South, taking the brutal form of the extraction and pillage of natural resources, as well as the degradation of environments and ecosystems through the privatisation and commodification of land and water. This has intensified in recent decades following the neoliberal restructuring of the economy and the infiltration of transnational capital, including the extractive type.

For instance, the uprisings and the social movements that the Algerian Sahara has witnessed over the past 7-8 years are, in a way, an insurrection by the victims of fossil capitalism, of extractivism and its logic of developing underdevelopment and accumulating capital by dispossessing communities.

This predatory model of development finds itself mired in serious tensions, generating protests and resistance. The rural working poor and the unemployed in North Africa are the most impacted. Comprising small-scale farmers, near-landless rural workers, fisherfolks, and the unemployed, the movements emerging in the various struggles are resisting the looting of their subsoil resources, the despoliation of their lands, pervasive environmental destruction, and the loss of livelihoods. People all over the Maghreb share this dispossession and are voicing their deep concerns over the ongoing status quo.

The people's environmentalism

These anti-extractivist (to a certain extent) social movements in North Africa are not only, and not predominantly, environmental movements, but are better understood as the latest development in the historical trajectory of class struggle against capitalist exploitation and imperialist domination. Such movements, while fighting for their rights and livelihoods, are fraught with tensions and face contradictions such as demanding jobs in industries with high environmental and social costs. This is a very thorny issue, as employment generation and environmental issues are

both pressing.

Should we call them social movements or social mobilisations? These tend to be ephemeral, localised, and lacking solid organisational structures: El Kamour in Tunisia and the unemployed movement in Algeria. “The struggle is defensive and not offensive,” as it can block corruption, thereby rendering difficult the process of capital accumulation, while many are left begging for some crumbs from the pie; when those crumbs are provided, the movements often disintegrate and disappear. Typically, their leadership lacks a radical vision of the movement’s struggles and thus fails to link up with other movements nationally or regionally, which traps their demands in a narrow local context.

Ultimately, this type of resistance is fundamentally anti-systemic and counter-hegemonic and can be explicitly anti-imperialist in certain cases and at specific junctures. These mobilisations bring the internal contradictions of extractivism and capitalism into the open, thus helping to forge the class consciousness necessary to overthrow capitalism and build a sustainable alternative in its place. However, the battles of social movements and rural communities can only be won if they are transformed into a fight against capitalism and imperialism and if they can go beyond the local and reach the national, regional, and international levels.

The struggle for environmental/climate justice and for just transitions towards post-extractivist development models needs to be fundamentally democratic.

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Environmental Movements after the Arab Spring

Aziza Moneer

Environmental stresses in the MENA region

The Middle East and North Africa (MENA) region faces major environmental threats. Geography and arid and semi-arid climatic conditions have led to a concentration of people in coastal zones and little valleys, with ensuing environmental pollution, declining per capita water resources, increasing soil erosion, climate change, and intensifying desertification, all of which create environmental challenges (Tal & Linkov, 2004). In addition, the region lacks rigorous environmental institutions and legal frameworks that are essential to reverse the current state of environmental degradation. Climate change, for example, reveals the institutional inadequacies as mirrored in policy debates on adaptive capacities and climate change resilience (Hoffmann, 2018).

These environmental challenges have been further aggravated by other socioeconomic processes, which include huge population growth, rapid urbanisation processes, and high rates of poverty. In this context, it seems that every time MENA governments are faced with the choice between economic development and jobs on the one hand and the protection of the environment on the other, priority is always given to the former (Hilmi, Safa & Ketata, 2015).

The green spring

Given the ecological and economic challenges, environmental activism – typically around issues affecting public health and livelihoods – has been on the rise in the region over the past few decades (Sowers, 2017). More recently and following the Arab Spring, environmental activism has been intensifying in the region. The Arab Spring could be described as a "green spring" as it brought not only political issues to the forefront of the public sphere but environmental issues as well (Loschi, 2019). According to a Euromed Survey, the causes that should be advocated by civil society in the MENA region include human rights, fighting corruption, social justice, education, and climate change. It could be said that people are taking advantage of the political opening that resulted from the Arab Spring to organise at grassroots levels and to enforce their political, social, economic, and environmental rights.

For example, in Ain Salah, in the heart of the Algerian Sahara, a collective movement erupted to protest against shale gas exploration by the French oil company Total since 2013 (Petitjean & Chapelle, 2016). The campaign claimed that Algerian citizens were confronting not only the environmental and health hazards of fracking but also a form of neocolonialism. In this regard, the movement declared that while France has banned Total and other companies from using fracking in its territory, it is still pushing for it in its former colony Algeria and for these multinational companies to monopolise exploring and exploiting shale gas in Algeria in the future (Hamouchene, 2015). Two years later, the campaign had fostered a formal coalition representing local councils, the energy minister was forced to resign, and fracking operations remain stalled (Kinninburgh, 2015).

In Tunis in 2015, an environmental campaign was launched to shut down the country's largest controlled landfill, the landfill of Borj Chakir in the municipality of Sidi Hassine, a southern suburb of the city with working-class neighbourhoods (Salman, 2021). The campaign focused not only on the compromised health of people living near the landfill and the hazardous environmental impacts of disposing of waste there, but also emphasized the rampant corruption in the country's solid waste management sector. The campaign exposed the rigged public tendering process which enabled French company Pizzorno Environment headed by François Léotard to win the contract for the management of the Borj Chakir landfill because of Léotard's friendship with ousted president Zine El Abidine Ben Ali (Salman, 2021).

In Morocco, an environmental campaign called "We are not Trash" was formed in the wake of the government decision to import trash from Italy as a cheap alternative to fossil fuel (Miller, 2016). Controversy broke out when local media reported that cement firm Lafarge Maroc had imported 2,500 tonnes of Italian rubbish to burn for energy (Yaakoubi, 2016). The campaign managed to make the political corruption hyper-visible not only by investing in the symbolic capital of importing garbage from Italy as a cheap alternative to fuel but also by insisting on a notion of citizen efficacy grounded in a collective demand for an inclusive political system and subject to the rule of law.

In Egypt, the "Egyptians against Coal" campaign was formed in the wake of the Egyptian government's decision to lift a long ban on using coal in Egypt. The movement managed to publicize

the negative impacts of coal and attract sympathisers (Sowers & Zayed, 2014). For environmental activists, coal trauma is not only connected with adverse environmental and health impacts or entrenched socioeconomic injustices but is viewed as a battle to be waged against unsustainable energy sources. Moreover, climate change was found to be perceived as one of the most detrimental environmental impacts of coal (Moneer, 2020). This finding is very interesting, as political discussions on the scientific legitimacy of climate change tend to ignore the enormous short-term consequences of relying on fossil fuels (including coal) for most energy consumption (Geels, 2014). While Egypt is committed to the ambitious long-term goal of the 2016 Paris Agreement on climate change to hold the increase in the global average temperature to below 2 °C above pre-industrial levels, the government has allowed for the import of coal into Egypt to generate electricity for both industry and households. This means that Egypt would be left saddled with a coal-reliant infrastructure for its energy needs without fulfilling its commitment to reduce CO2 emissions (Bottom, 2016).

Environmental movements in the MENA region: The quest for more than shades of green

Despite the different goals and mobilization practices of the aforementioned environmental movements, they share a number of features. First, social media has played a key role in providing a platform to environmental activists and concerned citizens to voice their views and express their shared grievances. It could be said that social media has spurred a type of alternative communication that does not occur through mainstream media. This alternative communication allows those who are affected by a cement factory, for example, to share their experience and create their media content away from the censorship of mainstream media (Blakeman, 2011).

Second, these movements are far more significant in their political, social, and cultural implications than it might otherwise appear. These movements are not calling for a mere clean environment. Rather, they express the people's frustration and discontent with bad governance, low quality of life, corruption, and marginalization. Such movements have in large part been a response to, and a rejection of, the extreme forms of inequality and dispossession that have flowed from the shift to neoliberalism, particularly in the global south (Kapoor, 2007). Therefore, these struggles and their practices can be significant in shaping our understanding of nature-culture relations in the MENA region.

Third, the significant role of youths in these environmental mobilisations reflects their increasing awareness of environmental problems. It also denotes youths' agency and willingness to enforce urgent and ambitious actions as a way to address not only the different environmental controversies in their respective countries but to contribute to a global dynamic environmental justice movement (Moneer, 2020). This conclusion contrasts with the stereotypical image of youth activists in the MENA region as being empathetic to environmental concerns, and adopting reasonable positions and predictable behaviours in relation to activism's expected outcomes (Rice, 2006).

Fourth, the consistent pressure of these movements challenged the discourse of the state and its apparatuses whereby the economic growth was conceptualised as a priority. In this regard, by advocating for environmental causes, the environmental activists managed to challenge established power relations and question many current structures, such as the economic system of corporate capitalism, which is driven by patterns and practices of largescale capital accumulation and fossil fuel extraction, and its inability to achieve the levels of decarbonization necessary to avoid dangerous irreversible environmental impacts (i.e., climate change) (Bebbington, 2007).

ENVIRONMENT IN CONFLICT: Ecologies of War and Occupation

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Environmental Infrastructures and War in the Middle East and North Africa

Jeannie Sowers

One way to explore the direct and indirect effects of conflict on communities and ecosystems is by looking at what happens to people and places when environmental infrastructures are rendered inoperable. For our purposes, environmental infrastructures refer to systems of providing and managing water, energy, waste, and food to make places and landscapes habitable, dependent on natural and physical processes as well as sustained human investment. The scale and type of investments required shift with technological change, but all require human skill in operation and maintenance; thus, personnel and inputs are as important as material infrastructure.[1]

A key feature of recent Middle Eastern wars has been the direct and indirect targeting of environmental infrastructures that populations depend upon for livelihoods and services. We argue that the intensity and frequency of targeting environmental infrastructures — whether directly or indirectly, or by seeking control of these systems through the use of violence — impose severe consequences on public health and ecosystems, effects often overshadowed by an immediate focus on enumerating direct deaths and casualties from armed conflict.[2]

In *Scorched Earth: Environmental Warfare as a Crime Against Humanity and Nature*, the environmental historian Emmanuel Kreike argues that premodern warfare in Europe and the Americas were in fact total wars that explicitly relied on the destruction of "environmental infrastructures." These infrastructures included dams, weirs, terraces, farmland, granaries, and other human-environment systems that sustained communities. Destroying environmental infrastructures—whether in 16th century Holland or in 19th century Angola, was the key feature in what he terms "environcide", that is, "intentionally or unintentionally damaging, destroying, or rendering inaccessible environmental infrastructure through violence that may be episodic and spectacular… or continuous and cumulative."[3]

Several features of the recent conflicts in the Middle East stand out in the context of thinking about war as "environcide":

First, despite provisions in international humanitarian law and environmental law to protect civilian objects in the former and "the environment" as an object in the latter, "environcide" in recent MENA wars has been done with impunity, with outcomes that are foreseen and predictable. Targeting (directly and indirectly) environmental infrastructures essential to the provision of urban services and the sustenance of rural livelihoods is a common tactic, allowing militias and militaries to displace urban and rural populations, punish 'enemy' communities or civilians perceived as sympathetic to the enemy, and profit from the sale of natural resources.[4]

Second, most MENA conflicts have not really ended in any real sense of the word. The persistent, protracted, and unsettled nature of these conflicts means that the reconstruction of environmental infrastructures is also uncertain and politicized. At best, state and international largesse is distributed in unequal ways, and 'development' (as Hiba Bou Akar argues for urban planning in Beirut) is often subject to regimes and non-state actors jockeying 'for the war yet to come.'[5]

Third, the targeting of environmental infrastructures under protracted *occupations* shares family resemblances to the fate of environmental infrastructures and civilian populations in protracted conflicts. These include the manipulation of environmental infrastructures for political/sectarian ends and the imposition of bureaucratic rules and procedures that restrict access to environmental infrastructure and/or limit the capacities for reconstruction (e.g., blockades of various forms in Gaza and Yemen, particularly through their effects on prices of essential goods.)

Fourth, protracted conflicts in the MENA sustain high levels of militarization, as planning 'for the war yet to come' outlasts periods of acute fighting. Pollution hotspots at military sites; the expanded designation of no-go, exclusion and firing zones; the reorientation of economic activity towards militias, state militaries, and their patrons — all these features create exclusionary, violent political economies that harm human health and local/regional environments in understudied ways.

We thus need to consider the various forms of "slow violence"[6] endemic to environcide. The "Toxic Remnants of War" Project sought to document how forms of environmental pollution and infrastructure destruction impacted public health in the protracted conflicts. In our work on the West Bank and Gaza, we showed the different ways in which environmental infrastructures were targeted in each locality, as the nature and practices of Israeli control and domination varied as part

of the broader policy of creating separated enclaves.[7] Lastly, "environcide" in the MENA has not only produced chronic forms of slow and structural violence but also highly visible atrocities that accompany new types of weapons and warfare; some of which has produced international engagement in hopes of future prevention. The devastating impacts of explosive weapons in populated areas, all too evident in Syria, Yemen, Gaza, and Libya, have prompted efforts by international advocacy networks to negotiate an international agreement to limit the uses of these weapons. The use of AI (artificial intelligence) and drones to target not only people but also environmental infrastructures is emerging as another gravely troubling frontier in environmental war-making in the Middle East and North Africa.

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34 Resistant Ecologies in a Landscape of War:

The Case of South Lebanon

Munira Khayyat

I am an anthropologist and I work in South Lebanon, a borderland and agricultural region that has been a warzone since the Nakba and the creation of Israel in the land of Palestine. Since 1948, the residents of the region, who are largely farmers, have lived through wars – guerrilla wars, aerial assaults, ground invasions, and a 22-year occupation (1978-2000). And they continue to inhabit a state of war. War must thus be thought of not only as a deadly and destructive event but also as a structuring condition that shapes the ways in which humans and other beings go about making their lives here.

This is key to the way in which I think about life in war, which can be seen in my recently-completed book on this topic entitled A Landscape of War: Resistant Ecologies in South Lebanon (University of California Press, Forthcoming).

Life is lived in war. In South Lebanon there are many ways in which this happens, but here I will focus on two aspects of what I call 'resistant ecologies', namely tobacco farming and goat herding in the South Lebanon warzone.

Let us zoom out a moment: war creates temporal and spatial conditions that pushes people to double down on reliable and resistant crops that require little investment, fast turnover, and no expensive infrastructure. A bonus for those struggling to farm in such harsh environments is the ability for their crops and livestock to coexist with militarized infrastructure and deadly remains of war such as mines and cluster-bombs. In South Lebanon, farming tobacco and goat herding are the agricultural mainstays for many villagers in the highlands, the former occupation zone, a margin, and a depressed rural area that sustained terrible damage in the 2006 war. These agricultural practices are augmented with remittances from relatives working abroad and subsistence farming, but in large part they provide for people in the villages – in particular women, children, elders, and those unable to find employment elsewhere. This vulnerable demographic can remain somewhat self-reliant by residing in their villages and working the land.

Tobacco is referred to by its cultivators as the bitter crop and the crop of resistance – it has a long, hard history in South Lebanon. It is sold to the Lebanese state monopoly, the Regie Libanaise de Tabacs et Tombacs, at subsidized prices once a year. Tobacco needs no irrigation, no infrastructure, and no additional workforce apart from that already provided by the village home. Tobacco is planted in the spring, harvested in the summer, and strung and dried and sold to the Regie in the winter. It is a tricky "resistance ecology" - a counterintuitive life-giving crop that shows how places of war push people to make hard choices and to depend more and more – body and soul – on destructive and extractive economies and ecologies. As things stand, nothing will wean the southerners off tobacco because it is their lifeline.

For example, tobacco farming increased 24% after the liberation of the South in 2000. It currently contributes to the livelihoods of 24,000 farmers. Indeed, most borderland households farm it. Most tobacco farmers farm fulltime and depend on tobacco for their livelihood. Lebanon is one of five countries worldwide that farm more than 1% of their agricultural land with tobacco (Hamade 2014).

The other resistance ecology thriving in South Lebanon is goat-herding. Southerners rely on goats for similar reasons: their considerable compatibility with wartime environments and the deadly remains of wars such as mines and cluster bombs that pollute the pasturelands of South Lebanon.

More than a million cluster bombs and 357,000 landmines are planted in the earth of South Lebanon, and they are not going away any time soon (thanks in part to the short attention span of humanitarianism). These bombs are a part of the environment that the inhabitants of the borderland must live with. Relatively speaking, and despite its "postage stamp" size, Lebanon is the country worst affected by cluster bombs worldwide in terms of contamination density. Cluster bombs and mines are physical remnants of war that entangle with the lives and livelihoods of the borderland's inhabitants and extend into periods where wartime violence is not acute. Dwellers of the southern borderland must contend with the deadly nature of the land to continue living there. This is where problems arise, as bombs do not deter farmers from using the land.

Goats are flexible, movable, and can survive periods of scarcity during active war, occupations, or invasions by foraging for food and eating almost anything. Most crucially, goats are small, light, and can graze in the borderland's many minefields without setting off the hidden explosives that are designed to kill humans, who are not as light-footed. As such, the mine-tricking

qualities of goats are well known among locals, who send their nimble beasts to nutritious mined pastures. In this way, the « slow violence » of war is somewhat resisted by a home-grown, anti-mine survival collective.

As TeKimiti Gilbert, the head of the UNMACC de-mining initiative operating in post 2006 South Lebanon said to me:

Goats are relatively light compared to a person; these things can often take five to seven kilograms of weight but that depends on the depth of the mine and how deep it has been laid. So generally, goats are not heavy enough to set off one of these mines and the farmers know this. And they also know that the good grazing land is inside the minefield fencing. The grass there is a lot better and so they let they goats go inside and then, taking the risk that, you know, these goats aren't heavy enough. However, every now and then, cows get inside and cows set things off. So, we had a number of accidents with cows losing their legs and then they're sitting in the minefield and the farmer goes into the minefield to get the cow and gets killed.

The interactive agency of explosives and humans – and beasts in the South Lebanon setting – is productive of resistant, more-than-human ecologies and landscapes that refuse the military impositions of military technology aiming to enforce limits and control on life and movement. These explosives do not germinate and grow, but these bombs do grow worlds (times, spaces, horizons, possibilities) that are actively inhabited by those who must.

What I observed among the (human and non-human) inhabitants of the bomb-infested borderlands of South Lebanon was an insistence on turning tragedy into opportunity, an irreverence and gumption born of necessity that saps the hold of fear and helplessness, creating instead attitudes and actions of vitalizing resistance in the face of such embedded dangers. Such resistant attitudes to adversity enable denizens of war, those with little wiggle-room, to re-occupy and somewhat revitalize the unavoidably deadly terrain of their lives. The challenge for us now is: how to make a better world that enables life to thrive less precariously? What are the political constraints keeping us in this deadly place? We can celebrate the resilience of these war-zone denizens and theorize in new ways about life in war, but what we must do is find ways to make the lives and livelihoods of those inhabiting such deadly worlds less diminished, toxic, and deadly.

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36 Political Ecologies and Settler Colonialism in Palestine

Muna Dajani

Rabea Eghbariah

Introduction

Israeli settler colonialism has been waging war not only against Palestinians but also against their natural environment and their relations with its non-human elements. Framing it as an ongoing, prolonged, and protracted war does not come close to describing the detrimental impacts this settler colonial project has been inflicting on Palestinian relations with land, natural resources, native plants, and animals. Going beyond materialistic assessment and categorisation of environmental harms and violations as measurable and fixed, our piece briefly explores a few examples of how systematic setter colonial violence seeps into the everyday interactions and relations between Palestinians and their more-than-human world(s) through legal processes and material dispossession.

Prohibited plants

The criminalization of Palestinian herb-picking culture provides an example of how repressive policies against Palestinians are enforced under the guise of scientific expertise and nature protection. Israeli nature protection laws authorize the Minister of Environmental Protection to declare plants as protected "natural values" (hereinafter "protected plants"). Following such a declaration, it becomes a criminal offense to pick, possess, or trade any amount of a protected plant from the wild. Based on this authority, in 1977, Israeli minister Ariel Sharon declared two herb-plants popular in Palestinian culture as "protected plants": za'atar (Majorana syriaca) and maramiya (sage). The criminalization of another herb-plant, akkoub (Gundelia toumerfortii), followed in 2005 when Sharon was serving as both the Prime Minister of the Israeli government and the Minister of environmental protection. Since these declarations came into force, Palestinians who have foraged these plants have been subject to sanctions and face threats of being caught, interrogated, charged, convicted, and fined. In fact, more than 750 Palestinians were fined for picking za'atar in Israel between 2010-2016 alone. The overwhelming majority of cases pertain to herb quantities that the Nature and Parks Authority (the body in charge of enforcing the ban) classifies as small quantities, foraged for household consumption.

While there is no solid scientific evidence that supports imposing such an absolute ban on picking these herb-plants, the harsh enforcement of the law, levied solely against Palestinians, makes it clear that the ban has served as a tool to criminalize Palestinian herb-picking culture and Palestinian relationship to land and nature. In this context, courts regularly penalize Palestinian defendants who pick these plants, and produce a "civilizing narrative" that not only treats these herb-plants as criminal substances but also their Palestinian pickers as enemies of nature. In 2019, after a legal battle led by Adalah - The Legal Center for Arab Minority Rights in Israel, and after the lack of conclusive scientific evidence had been exposed, the Nature and Parks Authority eventually changed its prosecutorial policies to allow limited picking of these herb-plants. Picking these plants, however, remains a highly politicized activity that can lead to criminal charges.

Targeted animals

Israeli policies pertaining to certain animals—goats and camels in particular—provide another arena to examine how colonial narratives regarding the natural environment result in legal policies that target both the animals and their Palestinian owners. Since the British Mandate was established in Palestine, certain ideas about goats and camels (two of the most abundant animals in Palestine at the time) became particularly popular among the colonial British administration, who used the pretext of scientific expertise to accuse these animals of causing soil erosion, flooding, and desertification. The Israeli rule that followed the Nakba of 1948 similarly resented these animals. In 1950, the Knesset enacted what had become known as the Black Goat Act (to distinguish the local, black-coloured, and Palestinian-owned goats from the white-coloured and Jewish-owned goats that were imported from Europe). The idea behind the law was to terminate the local goat population by imposing severe limitations on people's ability to possess and graze them. While the plans to eradicate the goats were not extremely successful in the first few years, by the late 1970s, Israeli enforcement increased and Palestinian-owned goats almost vanished. At the same time, camels became similarly targeted, with the state was reluctant to allow their grazing. The Israeli "Green Patrol" established in 1976 gained an infamous reputation for chasing goats, camels, and acting violently against their Palestinian owners, mostly Bedouins from the Naqab desert. These policies that allow the confiscation of goats and camels by the Green Patrol were upheld

by courts, including the Israeli Supreme Court during the 1970s and 1980s. While confiscating camels continues to this day, the Black Goat Act was repealed in 2018 after the Israeli government accepted expert recommendations that goat grazing mitigates fire outbreaks. This time, however, the goats were not there to graze anymore.

Weaponized water

Water has long been classified as the epitome of the settler colonial hegemony over natural resources and a clear arena in which Israel has dominated the resource and weaponised it against Palestinians all over historic Palestine. An important actor which monopolised water resources is the Mekorot water company. Established twelve years before the creation of the Israeli state by the Jewish Agency, the Histadrut Labour Federation, and the Jewish National Fund (JNF), its ideological founders restricted its work to supporting exclusively Jewish-settler enterprises and users. After 1948, Israel enacted the Water Law of 1959, which stipulated that all water resources in Israel were to be put under the control and responsibility of the Israeli state. Palestinians, who had all fallen under Israeli military rule (Palestinians inside Israel from 1948-1964, Palestinians in West Bank and Gaza since 1967 until the present time, and even Syrians in the occupied Golan Heights from 1967-1982) were systematically denied rights to their land and natural resources through a series of military orders on water and land use, restrictions on agricultural activities and crop selection, and denial of access to rangeland and pasture, amongst many other limitations.

The contemporary water and, from a wider perspective, environmental injustice we witness today in Palestine is therefore embedded in a systematic settler colonial logic of exclusion and dispossession of Palestinians from their natural environment. This entails denying Palestinians' aspirations to imagine, recreate, and transform their relations with those resources and elements. Palestinians' memory and environmental imaginaries have been completely obliterated for decades. The Huleh Swamps, once a thriving ecosystem of humans, flora, and fauna, was completely destroyed by the early Zionist settlers as early as the 1950s. With it, generations of traditional knowledge, native species, and local traditions were obliterated, leaving Palestinians cut off from a full spectrum of the deep and complex relation with their environmental world(s). The Jordan River is another example of a waterway transformed beyond recognition by settler colonial actors, especially for Palestinians who are forbidden from reaching its shores since Israel's occupation of the West Bank in 1967. A river rich in spiritual, cultural, and religious significance for the communities on its banks today is notoriously reduced to being an infamous border and a mere stream of pollution.

News of Israeli destruction of water pipelines, rainwater harvesting tanks, and even whole communities in Area C (land designation under the Oslo interim agreement of the occupied West Bank) has become the norm in the past few decades. In the South Hebron Hills, for example, images broadcast of Israeli bulldozers, escorted by the police and army, carrying out demolitions of homes, cattle sheds, and water tankers have become the norm. The intention is for remaining communities to relocate into enclaves within Palestinian Authority (PA) controlled areas, and thus turning more than 60% of the West Bank (Area C) to land exclusively dedicated to illegal settlement expansion and expropriation of resources.

The Gaza Strip environmental catastrophe is also a result of a decades-long systematic weaponization of water. Coerced into relying on an over depleted and extremely polluted water source (the coastal aquifer), Palestinians in the besieged strip are denied the right to benefit from water resources outside of its boundaries, relegating Gaza to the status of a separate entity that has to develop its own water sources. Israel's illegal blockade of Gaza for the past 14 years has wreaked havoc on an already fragile and depleted environment. The Gaza Strip has therefore become a "toxic biosphere of war": an ecosystem of toxicity, disease and pollution through a process of intentional de-development without any bold political efforts by the international community to bring Gazans and their depleted environment justice.

Concluding remarks

Palestinians have for decades been put in direct confrontation with one of the most heavily armed entities in the world over their rights to resourcehood: rights to be on the land and live off it, the basic human right to water, and the right to sovereignty over their food and natural resources. While Palestinians have been forced into living in fragmented geographies, they have been experiencing the same threat to their relationship with the land. We cannot therefore speak of the environment as purely a techno-managerial endeavour or prescribe policy interventions devoid of historical, social, and political acknowledgment of (settler)colonial logics of environmental management. We must frame the ongoing environmental injustice as a denial of the right to stewardship and care for the land. This stewardship must be situated in community-led management of natural resources embedded in traditional knowledge and practices.

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Iraq's Wetland Ecologies

Bridget Guarasci

What Is the environment?

The US government and mainstream media routinely argue that the reflooding and conservation of Iraq's southern marshes are the success story of the war. Saddam Hussein drained the marshes in retaliation for a 1991 uprising that began there and nearly deposed him. Returning Iraqi exiles who partnered with the US government prior to the invasion argued that restoring the marshes would be essential to re-building the state in a post-Ba'ath era, as this would constitute a rectifying of past crimes. Iraq's marshes, which reached 20,000 square kilometers in the 1970s, are located at the confluence of the Tigris and the Euphrates Rivers just north of the Shatt al-Arab that feeds into the Gulf. They include three interlinked wetlands lagoons that inundate three governorates—Basra, Maysan, and Dhi Qar—cross the Iranian border and store in their subsoils approximately one third of Iraq's total oil wealth. Whereas draining marshlands all over the world was the fashion of twentieth century statecraft, states today are actively reflooding wetlands as bulwark defenses against the ravages of climate change in the Anthropocene.

Contemporary environmental interventions in Iraq's marshes resonate with war on two scales. One, as a site-specific project invested in Iraq where environmental campaigns have expanded the criminalization of Saddam Hussein in ways that favor US war-making and its foreign allies. Two, on the level of the planetary biosphere where Iraqi marshlands conservation resonates with biodiversity conservation projects around the globe. Iraqi marshland conservation reveals how war and environment are mutually constituted agencies of violence. To understand how, we must begin with a critical reexamination of war, which has largely been understood as the violence of rupture and brute force, such as guns, bombs, kidnappings, and executions. War is indeed rupture, but it is also a slow unfolding of violence over a period of time that far outlasts activity on battlefields.[1] To understand these dimensions of war, we must begin by recognizing that war is itself an ecology.

Intersections of war and environment

To understand war as an ecology, we begin with the questions: *what is the environment?* and *how does it operate*? I begin with the premise that what we recognize as "the environment" is a discourse. By that I mean that the environment is and has been a mode of representing the physical world according to the ideals of nature, a pristine a priori world often treated as that which precedes human existence and must be protected from it. Much like the pipes and pumps that conduct water from reservoirs to households, the environment has infrastructure in the form of international policies and global environmental treaties that give it form.[2]

When global conservationists and state allies of the US war in Iraq set out to preserve Iraq's marshes, marshlands residents had already breached Ba'ath era dam infrastructure restraining the Tigris and Euphrates, thereby allowing waters to fill desiccated wetlands basins. Possibly because Iraq's marshes are seasonal wetlands with periods of dormancy, even after ten years without water upon reflooding they began to spontaneously regenerate: reed stands grew, fish returned, and so did birds. Iraq's marsh conservation movement, then, did not primarily involve engineers constructing hydraulic infrastructure to support the marshes, but rather the work of Iraqi exiles, state donors, and multinational contractors who studied the marshes, documented species' life in their environs, and prepared dossiers of material that they coached representatives of Iraqi state ministries to use in order to adjudicate international biodiversity conservation treaties.

When the state of Iraq signed these treaties they entered the realm of international politics on the environment, thereby achieving the UN Security Council occupation goal of reintegrating the Iraqi state into regimes of global finance and policy. In 2008, the Ramsar Convention for the Protection of International Wetlands inscribed the Hawizeh Marsh into its list of protected wetlands and in 2015 it extended that protection to Hammar and the Central Marshes, citing its efforts to conserve "The Garden of Eden" in the "Mesopotamian Marshes." In 2016, UNESCO inscribed Iraq's entire wetlands expanse and neighbouring ancient Sumerian cities of Uruk, Ur, and Eridu to the World Heritage Convention.

It is unclear as of yet how these treaties will be implemented on the ground in the marshes, but biodiversity conservation has a long history of regulating lands in ways that disenfranchise residents and make livelihood difficult within protected areas of conservation sites.[3] This emphasis on adjudicating conservation policy also meant that of the more than 54 million euros donors gave in bilateral aid for marshlands restoration, very little of that

funding has been impactful on the ground in the wetlands where marshland Shaykhs have for years asked publicly where all the money went. Biodiversity conservation discourse centered around Iraq's marshlands did indeed produce material effects, though that material change did not take place primarily in the body of the wetlands, but rather in ecological fields beyond its territory: in the bodies of Iraq's citizens and in the political comportment of state. To see it, one must look at the effects of occupation policies that enabled foreign donors to generate goodwill in Iraq by supporting the marshes project to win subsequent lucrative contracts in oil and water for their private sector businesses.

In the southern village of Nahran Omar the practice of flaring excess gas produced from oil extraction has doubled the cancer rates for residents, according to the mayor. With the redevelopment of Iraq's oil fields by multinational petroleum after 2008, pollution has only increased. The Global Burden of Disease study, the world's largest health survey, estimates that more people in Iraq have died from air pollution than conflict since the 2003 US invasion.[4] In 2019, Human Rights Watch issued a report condemning the Iraqi State for the high levels of contamination in Basra's water supply.[5] Al Jazeera reported in May 2021 that 70 percent of Iraq's industrial waste is dumped directly into the rivers or sea, even into the marshlands where high levels of contaminates have been found.[6] In 2020 the United Nations Environmental Programme (UNEP) found Iraq to be the fifth most vulnerable country in the world to climate change.[7] The violence of war is a geological unfolding as Iraq's soils, waters, and air hold the toxicity of US war and occupation. The cumulative effects of pollution will impact generations of Iraq's citizens who live in the midst of such toxic ecologies.[8]

Resilience

In October 2019, thousands of Iraqi revolutionaries took to the streets under hashtag #WeWantACountry calling for an overhaul of an ethnosectarian political system which, as a result of protracted war, corruption, and foreign influence, failed to provide electricity, clean water, or jobs for its citizenry.[9] What Iraqi revolutionaries wanted was a sustainable future.[10] The vision of sustainability they articulated requires us to expand an understanding of environmental justice to account for the ways in which climate change remediation can resonate with the violence of occupation to produce toxic ecological change, including within human bodies, that unfolds slowly, over the longue durée.

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About the Arab Reform Initiative

The Arab Reform Initiative is an independent think tank working with expert partners in the Middle East and North Africa and beyond to articulate a home-grown agenda for democratic change and social justice. It conducts research and policy analysis and provides a platform for inspirational voices based on the principles of diversity, impartiality, and gender equality.

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