

Climate, Land, and Rights: The quest for social and environmental justice in the Arab region

Green Struggles: Agro-Ecologists and Experiments for Just Environmental Futures in Lebanon

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October 2025



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October 2025

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Abstract

This report engages with the broader landscape of climate and environmental justice mobilizations in Lebanon. It focuses primarily on agricultural movements given their growing prominence and vitality in current funding landscapes and activist priorities, specifically their interventions advancing food sovereignty and sustainable land use.¹ Agricultural initiatives have increasingly consolidated in the past decade as critical sites of resistance and innovation in Lebanon's environmental struggles, often foregrounding intersectional approaches that connect ecological concerns with labor rights, gender justice, and community resilience. Yet, not much is known about their actors, strategies, and challenges. This report aims to unpack the narratives, visions, and operations of agricultural movements to better understand their role in shaping progressive environmental futures in Lebanon. Drawing on a mapping of 21 initiatives and in-depth case studies of five key movements, the report argues that progressive agricultural actors are essential to imagining more just and sustainable futures, though they remain constrained by fragmentation, donor dependency, and limited policy influence. The report also highlights opportunities to strengthen collective action through coalition-building, participatory governance, and deeper integration of local knowledge systems.

Disclaimer: The data for this report was collected before the Israeli war on Lebanon intensified in September 2024 and thus does not account for the ongoing ecocide that has destroyed thousands of hectares of fertile land in the south. Evidently, Israel's assault has significantly harmed the environmental and climate situation in south Lebanon, the Bekaa and Baalbek, drastically affecting the food-energy-water nexus throughout Lebanon. For a reflection on how wars exacerbate the climate crisis, and how there can be no climate justice when genocide and ecocide continue in all impunity, see this [brief](#) by Khechen and Atallah (2024).

1. There are other types of climate and environmental movements (such as land rights, sustainable waste management, energy justice, anti-quarrying), but these are being explored by other team members and will be the topic of another report.

1. Introduction

The prevailing «growth imperative» economic model, while raising living standards for many people, has strained the planet's natural systems. The relentless pursuit of expansion drives resource depletion, pollution, and greenhouse gas emissions, fundamentally altering Earth's biological, physical, and chemical processes—a phenomenon known as the Anthropocene era (Crutzen, 2006). These anthropogenic changes, ranging from greenhouse gas emissions to biodiversity loss, are vast and far-reaching (Steffen et al., 2011), disproportionately impacting vulnerable populations and perpetuating injustices (Schlosberg, 2013). Consequently, climate change emerges as a societal threat with a high potential to disrupt lives and livelihoods, as many people are experiencing around the globe. Babu and Patel (2024) and Hanieh (2024) argue that achieving climate justice requires not only mitigating immediate climate problems but also dismantling the systems that have fuelled this crisis.

While the urgency of the Anthropocene's challenges is globally recognized, responses vary significantly across nations and regions. In Lebanon, and in the Arab world more generally, environmental concerns only gained traction on the national policy agenda in the early 1990s, driven by a complex interplay of international commitments and local realities. The 1992 Rio Earth Summit catalyzed a policy shift in many Arab states, including Lebanon, leading to the establishment of environmental ministries and a growing focus on sustainability. In the aftermath of Lebanon's civil war, the Ministry of Environment (MoE) was established in 1993, due to the lobbying of a group of environmentalists, and with the backing of Druze sectarian patron Walid Jumblatt (Makidisi, 2013). The ministry is tasked with formulating and implementing environmental policies and legislation, such as [Law 444 on Environmental Protection](#) issues in 2002. However, its limited resources and institutional capacity curtail implementing its policy commitments, many of which were spurred by the 2015 Paris Agreement and the UN's 2030 Agenda.

Achieving climate justice requires not only mitigating immediate climate problems but also dismantling the systems that have fuelled this crisis.

Lebanon's environmental problems are dire, encompassing severe air and soil pollution, alarming loss of tree cover, and widespread land degradation. These issues are largely triggered by uncontrolled urbanization with severe repercussions on water resources, agricultural productivity, food security, and marine ecosystems. At the same time, Lebanon is experiencing the impacts of global climate change, manifested in fluctuating rainfall, rising temperatures, and extreme weather events, leading to wildfires and droughts.

Amid these crises, agricultural movements have emerged as a particularly fertile ground for understanding how grassroots actors are responding with locally grounded, justice-oriented practices. This report focuses on understanding the narratives of

movements, NGOs, and initiatives operating across a spectrum from innovative sustainability solutions to those with more radical imaginaries that attempt to challenge dominant capitalist paradigms. The report seeks to understand these groups' values, approaches, interventions, and activities, funding mechanisms, as well as challenges and opportunities. Based on this review, it also identifies the barriers and opportunities for climate and environmental action at the local and grassroots levels.

The report's specific objectives are to (i) profile the landscape of non-state actors, particularly activists, movements, and organizations engaged in climate and environmental protection in Lebanon, with a focus on agricultural movements; (ii) identify the actors' positionality, values, strategies of action, funding situation, and actions across territories; (iii) identify the opportunities and barriers in the effective organizing and collective action of movements and organizations for environmental and climate advocacy.

This report argues that progressive agricultural movements in Lebanon, though diverse in form and strategy, are necessary and under-recognized actors in shaping alternative environmental futures.

Given the fragmented nature of environmental data in Lebanon, this research adopted a mixed-methods approach, drawing on a literature review, targeted interviews, and online content analysis. The literature review synthesized existing knowledge from academic papers, NGO and governmental reports, and media articles (in English, acknowledging the potential limitation of excluding Arabic sources). Semi-structured interviews were conducted with seven key actors in the environmental and climate movements. This included two interviews with researchers and experts in the field, and five interviews with organizers, including representatives from NGOs and initiatives (see Annex for details). These interviews explored actors' values, strategies, network connections, actions, and perceived impacts. Online content analysis of both mainstream and alternative media (such as Megaphone and Beirut Today) was used to enrich the data landscape.

This report argues that progressive agricultural movements in Lebanon, though diverse in form and strategy, are necessary and under-recognized actors in shaping alternative environmental futures. By foregrounding food sovereignty, ecological farming, and intersectional justice, these movements challenge dominant technocratic and market-driven paradigms. Operating largely within an experimental space, they generate community-based solutions and alternative imaginaries for environmental governance. Yet, their transformative potential remains constrained by fragmentation, donor dependencies, and limited engagement with policy systems. The report suggests that strengthening coalition-building, supporting community knowledge, and engaging in strategic policy advocacy are necessary steps toward achieving an inclusive, just transition in Lebanon's environmental landscape.

This report has six parts. It begins with an overview of Lebanon's ecological crisis, identifying key environmental challenges and governance gaps. The second section outlines the report's conceptual positioning, drawing on actor-network theory and the

Three Horizons framework to situate movements within broader socio-political dynamics. The third part presents a typology and tabulation of 21 progressive environmental movements. The fourth offers a brief overview of select initiatives. Part five provides detailed profiles of five key agricultural movements (Agricultural Movement, Buzuruna Juzuruna, Jibal, Ardi Ardak, and Turba Farm). The report closes with a discussion of the barriers and opportunities that impact organizing and collective action for environmental and climate advocacy in Lebanon.

2. Positioning

Scholarship on environmentalism in Lebanon often favors a technical, policy, and normative approach, depoliticizing challenges. A few works provide an alternative approach, centering political economy. Amongst those, Makdisi (2012) historicized the emergence of environmentalism in Lebanon, arguing that its development has been deeply shaped by the country's sectarian political system and neoliberal economic policies. More recently, writing for the Arab Reform Initiative (ARI), Vizoso (2024) examined the Lebanese sectarian oligarchy's multifaceted strategies to curtail environmental activism, including repression, co-optation, and appropriation of environmental language.

Other scholars examined how Lebanon's heavy reliance on fossil fuels for electricity generation contributes significantly to air pollution and climate change (Chaplain, 2023; Germanos, 2024). Chaplain and Verdeil (2022) explained how electricity systems in Lebanon are shaped by both socio-technical and political factors, showing how energy is deeply connected to political and territorial dynamics, through a multiplicity of actors leveraging electricity provision for their own interests and agendas. Farah (2023) explored the relationship between infrastructures, geography, and politics in Lebanon through a cosmopolitical lens, emphasizing the interactions between human and non-human actors. He highlighted growing socio-environmental conflicts, arguing that these controversies are crucial sites for understanding how materiality and localized knowledge shape urban politics. Waste management has been studied as a critical environmental issue that manifests deeper societal and governance failures, including corruption, consumerism, and inadequate infrastructures (Awwad, 2017; Germanos, 2024). Finally, Khechen (2022) investigated the privatization of Lebanon's coastal areas due to real estate ambitions, as well as environmental degradation related to uncontrolled urbanization and unregulated tourism development, leading to the displacement of local communities and unequal access to resources.

This report adopts a similar framing that unpacks actor-networks governing infrastructural and environmental systems, revealing multiscale power relations and economic interests. It also seeks to identify existing local environmental practices, values, and knowledge systems, highlighting the importance of community knowledge in shaping social and environmental action (Hackmann and St. Clair, 2012). As such, the report (i) acknowledges the shift in scholarly knowledge on environmental and climate issues that allows a critical and integrated understanding of complex challenges through actor-network theory and systems-thinking (Meadows, 2008). Furthermore, the report (ii) identifies a set of actors (nonprofits and collectives) that are investing in ecological-cultural initiatives and interventions, which are seeking to rethink people and land rights relationally to environmental and climate issues. The report focuses on mapping these initiatives to document their actions. It recommends efforts to connect them and form a community of practice that can further anchor and consolidate this growing intersectional understanding of environmental and climate action, thus contributing to a more impactful response to urgent environmental and climate challenges.

To guide our exploration, the report adopts the “Three Horizons” (3H) framework

introduced by Sharpe et al. (2016), which focuses on transformative change rather than mere adaptation (Figure 1). The framework helps us understand the tensions between the current system and emerging alternatives, and to locate where different actors, practices, and imaginaries fall within that continuum.

This framework envisions three distinct horizons:

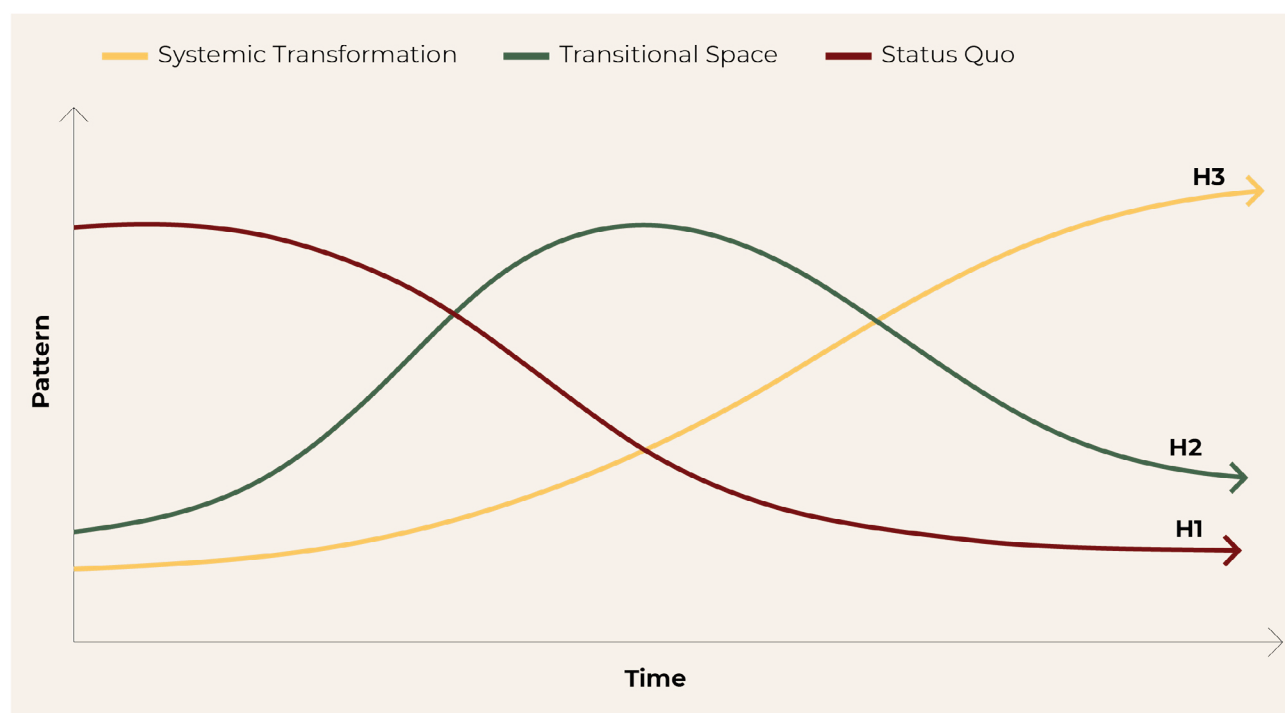
Horizon 1 (H1) represents the dominant system or status quo—the existing structures, institutions, and practices that shape Lebanon’s political economy and environmental governance. In the context of this report, H1 encompasses centralized policymaking, sectarian clientelism, donor-driven development, and market-oriented environmental approaches that often fail to address the root causes of ecological and social crises.

Horizon 2 (H2) refers to a transitional space characterized by experimentation, contestation, and innovation. It is where new ideas, practices, and actors begin to emerge in response to the failures of the dominant system. Many of the progressive environmental movements profiled in this report, including agroecological farming networks, seed preservation initiatives, and solidarity-based food systems, operate within H2. These actors are testing alternative models of sustainability and justice, even if they remain constrained by structural limitations.

Horizon 3 (H3) embodies the desired future, an aspirational vision of systemic transformation where environmental and social justice are embedded in institutional and cultural life. This horizon imagines a Lebanon in which ecological regeneration, community-led governance, and collective care practices are not marginal but mainstream. Achieving this horizon requires deep shifts in power relations, economic structures, and socio-political imaginaries.

By using this framework, this report maps actors and situates them within a trajectory of change. The report seeks to identify and support those initiatives that contribute to the emergence of H3, while also acknowledging that many remain rooted in, or are negotiating with, the constraints of H1. We focus especially on those actors in H2 who hold the potential to disrupt and reimagine the system toward a just transition.

Figure 1: Three Horizons (3H) framework



Source: Sharpe, B. & Hodgson, A. (2006). Three Horizons: A pathways practice for transformation. H3Uni.
<https://www.h3uni.org/tutorial/three-horizons/>

The International Labour Organization (ILO, 2016) defines a just transition as a principled approach focused on fairness and inclusivity during societal shifts. This report, however, recognizes that this concept can be co-opted by powerful interests to maintain profits and promote false solutions (Bitar 2024; Hanieh 2024). The report further situates this concern within the first horizon (H1) of the 3H framework, representing the «business as usual» mindset that may resist or co-opt transformative change. Instead, this report's approach to achieving a just transition towards poverty eradication and environmental protection is grounded in Swilling's «middle-way» theory of change (post-capitalism), focusing on the efficacy of incremental changes emerging from socio-political struggles and providing glimpses of desired futures (Swilling, 2020). These middle-ways, associated with practices of commons and commoning, prioritize collective needs and attempt to resist commodification, exclusion, and dispossession—central to achieving environmental and climate justice. These practices can be seen as emerging within the H2 space, potentially contributing to a transformative third horizon (H3), where the Sustainable Development Goals (SDGs) are realized.

Furthermore, the report recognizes the importance of imagining future urban spaces and ecologies for advancing just transitions. These imaginaries can be seen as shaping the future envisioned in H3. Therefore, the report examines the narratives and strategies of movements, as well as speculative and visual interventions through which communities are re-imagining different ecological futures, with a focus on those that center environmental and climate justice. By exploring these diverse perspectives, the report aims to identify potential pathways for navigating the transition from H1 to H3, towards more just, liveable, and sustainable futures.

Conceptual Distinctions

It is crucial to distinguish between «climate change» and «environmental degradation» in discussions about environmental and climate movements. As Hornik et al. (2016) highlight, these terms have distinct meanings: the environment encompasses our entire surroundings, while climate refers to long-term weather patterns in a specific area. This distinction is vital because conflating these concepts can lead to misdirected efforts and ineffective policies. For example, climate change necessitates global efforts to reduce greenhouse gas emissions, whereas environmental degradation often requires localized actions to address pollution, deforestation, and unsustainable resource use. This conflation often stems from a misunderstanding among the public, oversimplification by the media, or even oversight by policymakers. Work by Hornik et al (2016) serves as a reminder that these issues, while complementary facets of the broader challenge of anthropogenic environmental impact, demand targeted solutions.

Understanding these distinctions empowers us to engage in a more nuanced and effective discourse on environmental and climate action in Lebanon and beyond. This report approaches climate change and environmental degradation as complementary concepts, recognizing their interconnectedness and mutually reinforcing nature. While distinct in definition, they are inextricably linked, with climate change often exacerbating existing environmental problems and vice versa. We examine these issues with this understanding, positing that effective solutions require addressing both the global challenge of climate change and the local impacts of environmental degradation.

Similarly, climate justice and environmental justice are interconnected movements with distinct focuses. Yet, these concepts increasingly overlap, with the notion of a “just transition” emerging as an umbrella term that attempts to reconcile both environmental and social imperatives. Climate justice frames environmental issues as human rights issues, advocating for equitable access to clean water, air, and sustainable resources. It seeks to address the social, economic, and environmental dimensions of climate change, prioritizing the needs of vulnerable populations while acknowledging historical and systemic inequalities. Climate justice, due to its global implications and the necessity for international cooperation, has gained significant traction within the UN and other international organizations, leading to its inclusion in major climate agreements and policy frameworks. While this increased visibility and recognition can be beneficial, there are valid concerns that the concept is diluted or co-opted to fit within existing power structures and agendas. For instance, Bond (2012) argues that the dominant discourse on climate justice within international institutions (such as the United Nations Framework Convention on Climate Change (UNFCCC), the World Bank, and the International Monetary Fund) often focuses on market-based solutions and technological fixes, neglecting the deeper structural inequalities and power imbalances that contribute to aggravating climate change. Schlosberg and Collins (2014) also warn that the concept of climate justice risks being «mainstreamed» and stripped of its transformative potential if it is not accompanied by a genuine commitment to challenging existing power structures and promoting social and ecological equity.

Environmental justice, on the other hand, champions equitable treatment and engagement of all individuals in environmental decision-making and regulations. It

confronts the unequal distribution of environmental benefits and burdens, particularly within marginalized communities. This movement emphasizes community expertise and empowers these groups to advocate for their rights. Generally, it emphasizes grassroots activism and community-led solutions. The work of environmental philosopher David Schlosberg (2007) is relevant here, as he argues that environmental justice should be understood as a «multidimensional concept» that includes not only distributive justice (the fair distribution of environmental benefits and burdens) but also procedural justice (fair and inclusive decision-making processes) and recognition justice (acknowledging and valuing diverse perspectives and cultural knowledge). This broader understanding of environmental justice allows for the inclusion of non-human concerns, such as the rights of nature, living beings and ecological integrity.

Keeping these conceptual distinctions in mind, the analysis that follows recognizes that justice-based movements in Lebanon may address both climate change and environmental degradation in their work, but with varying emphasis and approaches.

3. Lebanon's Ecological Crisis

Lebanon is facing an ecological crisis driven by multiple, interlinked environmental challenges. This section presents an overview of key issues, followed by an outline of the major gaps and challenges in addressing these crises.

- ♦ **Land degradation:** Land degradation in Lebanon is widespread, driven by both biophysical and socioeconomic factors including urban sprawl, population pressures, overgrazing, deforestation, and climate-related stressors (UN-Habitat, 2022). According to the [Ministry of Agriculture's National Report on Land Degradation Neutrality \(2018\)](#), thousands of hectares of forests, grasslands, and croplands have been lost between 2000 and 2010. While the report provides valuable insights into land use/cover trends, it is outdated and does not provide information on how future changes will be monitored.
- ♦ **Deforestation and forest fires:** Rapid urbanization, illegal logging, and forest fires have caused Lebanon to lose a significant portion of its tree cover. The sharp increase in forest loss over the last two decades is largely due to the compounding effects of climate change and mismanaged land use (Chiavaroli, 2023). Forest fires, now more frequent and intense, are further fueled by higher temperatures and prolonged droughts. At the same time, the Israeli war in south Lebanon and North Bekaa wrought massive destruction of Lebanon's tree cover. In response to this combination of issues, the Lebanese Agriculture Minister declared in March 2025 a state of emergency for the conservation of Lebanon's forests (L'Orient-Le Jour, 2025).
- ♦ **Biodiversity loss:** Lebanon's biodiversity is under increasing threat due to habitat fragmentation, pollution, invasive species, and climate change. Analyses reveal that 46 percent of faunal species in Lebanon are terrestrial. However, this rich biodiversity is severely endangered: seven mammal species have already gone extinct, while 31 percent of remaining mammals are classified as rare, 20 percent as vulnerable, and 7.5 percent as close to extinction (Khoury et al., 2016). Marine biodiversity is also under threat. Invasive species like lionfish migrating through the Suez Canal have disrupted Mediterranean ecosystems. Overfishing, pollution, and coastal urbanization have further strained marine life (Bitar, 2024).
- ♦ **Coastal degradation:** Lebanon's coastlines are increasingly privatized and polluted, threatening marine habitats and public access to the sea. Real estate developments and unregulated tourism have exacerbated coastal erosion, disrupted ecosystems, and displaced local communities (Khechen, 2022). In addition, the lack of regulation allows construction and landfilling to continue unabated along critical stretches of the shoreline.
- ♦ **Water scarcity:** Climate-induced changes have significantly reduced rainfall and snowpack levels in Lebanon, resulting in lowered groundwater tables and depleted aquifers. UNICEF (2021) warned that «unless urgent action is taken, more than four million people across Lebanon—predominantly vulnerable children and families—face the prospect of critical water shortages or being completely cut off from safe water supply.» The situation is worsened by electricity shortages affecting water

pumping stations, hospitals, and health centers, and putting lives at risk.

- ♦ **Air and soil pollution:** Air pollution is particularly acute in cities like Beirut and Tripoli due to traffic congestion, industrial emissions, and the reliance on diesel generators during frequent electricity blackouts. Meanwhile, unregulated pesticide use and improper waste disposal contaminate agricultural soil and water systems. The ongoing waste crisis, as documented by Human Rights Watch (2017) and Awwad (2017), compounds both air and soil degradation.

Lebanon's climate crisis acts as a threat multiplier, intensifying the ecological destruction already wrought by extractive industries, consumerism, and a state apparatus that has neglected its responsibility to safeguard the public good (Bitar 2024). The consequences of these systemic failures are evident across multiple fronts, from the pervasive waste crisis and air pollution to the privatization of natural resources and the construction of environmentally damaging infrastructure. The burden of these crises falls disproportionately on vulnerable communities, including farmers, laborers, and fishers, further exacerbating existing social and economic inequalities.

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There are several systemic challenges to tackling environmental degradation. For example, environmental monitoring systems are weak or obsolete, limiting the ability to track change or formulate timely policy responses. Environmental laws (e.g., Law 2002/444) exist but are poorly enforced due to limited institutional capacity and political interference. Moreover, environmental agendas are often shaped by external funders with shifting interests, which limits long-term strategic planning and hinders focus on underfunded issues like marine protection and biodiversity. Last but not least, most responses remain technical and depoliticized, overlooking the structural inequalities, land tenure issues, and political-economic dynamics driving environmental harm.

While challenges remain, public concern over environmental degradation has gradually increased, especially in response to repeated wildfires, water shortages, and the ongoing waste disaster. This growing awareness has coincided with the emergence of environmental actors and initiatives across Lebanon. The next section profiles this diverse landscape.

4. Environmental Movements: Profiles and Typologies

Public awareness of environmental degradation and the climate crisis in Lebanon has surged over the past decades, often in response to specific crises. Environmental groups and mobilization have a long history in Lebanon dating back to the early 1990s, and played an important role in the establishment of the Ministry of Environment. Most of these groups continued their mobilization through nonprofit associations, often with connections to the Ministry, and thanks to funding from international organizations and nonprofits. In 2020, the UNDP estimated there were up to 816 environmental NGOs in Lebanon (UNDP, 2021).

A large proportion of these actors adopt normative or technical solutions that, although valuable, often remain disconnected from the structural and systemic dimensions of Lebanon's environmental crisis. For instance, they include NGOs that provide recycling services but for a price that only certain socio-economic categories in selected Beirut neighborhoods can afford, or NGOs that invest in promoting green energy without assessing its actual environmental costs on land and water, and in terms of waste. Notably, [the Lebanese Center for Energy Conservation \(LCEC\)](#), an NGO affiliated to the Ministry of Energy and Water, has played a key role in promoting renewable energy and energy efficiency, bridging the gap between policy formulation and implementation. The LCEC facilitates the Ministry's work with donors and has enabled the transition to solar energy in Lebanon in the aftermath of the electricity crisis, advancing the political-economic networks of specific political-sectarian groups within certain geographies, especially through the recently approved net-metering law (Chaplain and Verdeil 2023).² This report recognizes the important role of technical interventions in addressing environmental challenges, but will focus on actors that situate their work within broader struggles for environmental and climate justice. This includes a critical engagement with issues such as land rights and social equity.

In that vein, mobilization to claim environmental rights is most exemplified by the 2015 “You Stink” movement that protested waste mismanagement (Hilal et al., 2015; Awwad, 2017; Human Rights Watch, 2017; Succari & Pernot, 2023) and by the 2017-19 Bisri Dam campaign that succeeded in stopping construction of a dam through the Bisri Valley in Chouf. The latter campaign was amplified during Lebanon's 2019 uprisings, leading to the World Bank (the dam project's main lending actor) cancelling its funding. The uprisings included several environmentalists among the activists that interconnected with other groups mobilizing for urban rights, social rights, political rights, feminist rights, queer rights, and disability rights—forming an unprecedented constellation of intersecting rights-based mobilization that marks the long history of protests and struggles in Lebanon. These mobilizations have been well documented in the literature and thus will not be further unpacked here. Instead, we identify several initiatives of interest in Lebanon that are actively experimenting with alternative models and that embody elements from the 3H framework discussed above. They share a common

2. Chaplain and Verdeil explain how the networks benefit the Aounists in Kesrewan and Metn, and the Mouawad family in the North, through EU and USAID funding, respectively.

thread of seeking to transition away from the dominant neoliberal paradigm (H1) toward more just, community-rooted, and ecologically sustainable futures (H3). While some H1 actors may co-opt the discourse of environmental and climate justice, adopting its language in funding proposals or communication strategies, their interventions often remain embedded in market-based, technocratic, or depoliticized approaches.

The initiatives in this report use justice as a core principle guiding their strategies, partnerships, and values. They are formed by grassroots activists who seek to create a more just and sustainable society, one that respects the interconnectedness of human and natural systems. The report observes that these initiatives, while innovative within their local contexts (H2), often struggle to translate their successes into broader systemic transformations (H3). Their experiments to advance commoning, participatory decision-making, and community-driven approaches do create a sense of empowerment and agency at the grassroots level. However, their lack of engagement with policy-level issues and the broader political-economic landscape limits their ability to influence systemic change. The report highlights that while these initiatives represent important steps towards a more just and sustainable future, their transformative potential is constrained by their reluctance or inability to interact with and influence policy frameworks and decision-making processes at higher levels.

While sharing elements of «radical discourse,» the movements identified here exhibit varying shades of radicalism (there are inherent complexities in defining «radicalism,» which go beyond the scope of this report). It is worth mentioning that, according to one interview with an expert in the field, donors' recent focus on environmental issues in Lebanon may have influenced the increase in initiatives focused on ecology, land, and agriculture. While earlier donor agendas focused on solid waste and wastewater management, the emphasis has recently shifted. Such dependency on available donor funding and research agendas can undermine other critical environmental concerns, such as the protection of marine ecosystems and sustainable fishing practices. The report will thus refer to these initiatives through the “progressive” qualifier.

Limited research has shed light on Lebanon's “progressive” environmental movements. Most literature highlights the pervasive influence of patronage and clientelism in hindering environmental progress and causing dysfunctional infrastructure and resource mismanagement (Baumann 2016). The report identifies a few short investigative media articles (from outlets such as The Public Source) that explore the importance of mutual aid (Al-Awnah) and the strong community support in Lebanon to navigate challenges of climate change and economic instability (Maroun, 2024). We also mention a chapter on the “Stop Bisri Dam” campaign (Nassour, 2023), as well as a valuable recent report by Vizoso (2024), who mapped several environmental movements in Lebanon, highlighting various forms of activism across NGOs, professional coalitions, grassroots campaigns, and more. This report seeks to build on this work and provide a deep dive into the growing progressive environmental movement. We discuss some of the actors that are briefly mentioned in Vizoso's report, such as Buzuruna Juzuruna, Agricultural Movement in Lebanon, Lil Madina, and Jibal, but many others are not mentioned.

Table 1 identifies 21 progressive environmental initiatives in Lebanon across six different institutional categories, and lists their key features, date of establishment, geography, social media presence, and communication language. The 21 actors are distributed as

follows: (i) Nonprofits (seven actors), (ii) Private Sector (three actors), (iii) University-Based (two actors), (iv) Individual/Entrepreneurial (four actors), (v) Community-Led (four actors), and (vi) Campaign-Based (one actor).

The table includes two discontinued initiatives, Lil Madina and Turba Farms, which were included due to the valuable insights they offer into past experiments in environmental organizing. While Turba Farm is discussed in detail below, Lil Madina is not as its work has already been analyzed by its co-founder in the academic literature (Jabri, 2023).

There are likely other actors that were not identified within the limited timeframe given to research. This list is thus preliminary and should be complemented by additional data.

Table 1: Profiles of identified environmental initiatives in Lebanon - compared and produced by the authors.

Identified Initiatives	Key Features	Type	Date of Establishment	Geography	Social Media Presence	Communication Language (by degree of most used)	Website/ Social Media
Jibal	Food Security/ Sovereignty, Agroecology, Community Development, Capacity Building, Advocacy, Relief Efforts/ Humanitarian Aid	Non-profit Organisation	2018	Lebanon (mainly Zgharta and Majd El Meouch)	Active	English, Arabic	Website
Buzuruna Juzuruna	Food Security/ Sovereignty, Agroecology, Research and Education, Community Development, Relief Efforts/ Humanitarian Aid	Non-profit Organisation	2018	Bekaa Valley	Active	English, Arabic	Instagram account
AgriMove-ment Lebanon	Food Security/ Sovereignty, Agroecology, Research and Education, Community Development	Non-profit Organisation	2022	Various regions in Lebanon. South (near the Blue Line, Tyre), the Bekaa Valley, Anjar, Mount Lebanon, and Tripoli	Limited	Arabic, English	Website
Green Southerners	Advocacy, Environmental Conservation, Wildlife Protection, Campaigning Against Harmful Projects	Non-profit Organisation	2014	South Lebanon	Active	Arabic, English	Website

Identified Initiatives	Key Features	Type	Date of Establishment	Geography	Social Media Presence	Communication Language (by degree of most used)	Website/ Social Media
Mada	Community Development, Environmental Conservation, Partnership Building/ Networking, Research and Education	Non-profit Organisation	2000	North Lebanon, mainly Akkar	Active	English, Arabic	Website
SOILS Permaculture Association Lebanon	Agroecology, Community Development, Research and Education, Partnership Building/ Networking	Non-profit Organisation	2016	Saidoun (Jezzine, South Lebanon)	Limited	English, Arabic	Website
REEF	Arts & Culture, Environmental Conservation, Advocacy	Non-profit Organisation	2019	Akkar region, then expanded rapidly to other Lebanese territories	Active	English, Arabic	Website
Nohye Al Ard	Agroecology, Community Development, Capacity Building	Community-led	2020	Saida	Active	Arabic	Instagram account
Lil Madina	Urban Activism, Environmental Conservation, Advocacy	Community-led	2013	Saida	Not Active	Arabic	Instagram account
Turba Farm	Agroecology, Food Security/ Sovereignty, Community Development	Community-led	2021	Zahle	Not Active	English	Instagram account
Sikka	Arts & Culture	Community-led	2019	Saida	Active	English, Arabic	Website
Ardi Ardak	Agroecology, Research and Education, Climate Smart Technology	Private Sector	2019	Lebanon	Active	English, Arabic	Website
theOtherDada, Beirut RiverLESS Forest project	Environmental Conservation	Private Sector	2019	Beirut River, Sin El Fil	N/A	English	Website
Compost Baladi	Recycling, Advocacy	Private Sector	2017	Lebanon	Active	English, Arabic	Website

Identified Initiatives	Key Features	Type	Date of Establishment	Geography	Social Media Presence	Communication Language (by degree of most used)	Website/ Social Media
American University of Beirut's Nature Conservation Center (AUB-NCC)	Research and Education, Environmental Conservation	University	2002	Lebanon	Active	English, Arabic	Website
University of Balamand's Fire Lab	Research and Education, Environmental Conservation	University	2016	Lebanon	Not Active	English	Website
Ziad Abi Chaker's GGRIL	Recycling	Individual	2013	Lebanon (Beirut, Zahle, etc.)	Active	English	Instagram account
Les Racines du Ciel	Agrotourism	Individual	N/A	Lassa, Mount Lebanon	Limited	English, French	Instagram account
The Orange House (Tyre)	Ecotourism, Environmental Conservation, Wildlife Protection	Individual	pre-2010	Tyre	Limited, Not Active	English	Facebook account
Hamza Chamas' hemp-based production	Sustainable Agriculture	Individual	2017	Bekaa Valley	Not Active	N/A	N/A
Save the Bisri Valley	Environmental Activism, Campaigning Against Harmful Projects	Campaign	2020	Bisri	Limited, Not Active	Arabic, English	Facebook account

In the next section, the report discusses five selected initiatives in detail. Those initiatives—AgriMovement Lebanon, Buzuruna Juzuruna, Jibal, Ardi Ardak, and Turba Farms—represent a diverse range of organizations working towards environmental sustainability through agricultural interventions. They were chosen based on their data accessibility, alignment with expert recommendations, and their emphasis on community-driven initiatives.

Before doing so, the report presents a brief overview of the environmental actors mentioned in Table 1 (including those that fall outside the in-depth analysis), specifically, the individual and entrepreneurial initiatives, university-based institutions, and community-led efforts.

- ♦ **Individual and entrepreneurial initiatives:** This includes initiatives that are driven by individual leadership, innovation, or small-scale enterprise models. One example is Ziad Abi Chaker, an environmental and industrial engineer who founded Green Glass Recycling Initiative Lebanon (GGRIL) in 2013. GGRIL's success in recycling glass into various products showcases the potential for innovative solutions to address

Lebanon's waste crisis. Les Racines du Ciel, an agroecological guesthouse in north Lebanon, offers a model of environmentally conscious agrotourism. Run by an individual practitioner, the initiative combines organic farming, natural building, and eco-conscious accommodation to create an immersive experience rooted in sustainability and land care.

There also exists a realm of individual endeavors that often go unnoticed or unreported. These are the passionate individuals who dedicate themselves to preserving biodiversity, protecting endangered species, or restoring fragile ecosystems. For example, the owner of [the Orange House](#) in Mansouri (Sour district) provides a sanctuary for sea turtles. Another example is the “hemp revolution” led by Hamza Chamas in the Bekaa Valley, a region historically associated with hashish production (Fox 2022). The initiative reclaims the region's identity, shifting the narrative from illicit drug production to sustainable and innovative hemp-based products. By using the hashish plant for hemp milk, textiles, paper, and even hempcrete, Chamas is not only creating economic opportunities but also challenging stereotypes and building a sense of pride in the community's heritage and resources.

- ♦ **Private sector actors:** Private enterprises have increasingly taken part in environmental action through scalable and innovative solutions. [Compost Baladi](#), founded in 2017, promotes sustainable composting and organic waste management by transforming organic waste into compost for use by farmers and gardeners. Meanwhile, theOtherDada (tOD), led the Beirut RiverLESS Forest project, is a nature-based solution (NBS)³ designed to address the ecological degradation of the Beirut River and surrounding urban areas using the Miyawaki method. This method, proposed by Japanese botanist Akira Miyawaki, involves planting dense, native forests to accelerate forest growth and create resilient habitats. However, it is worth noting that this project has garnered criticism about its impact. Nevertheless, the project began in 2019 with the planting of 5,800 native trees and shrubs on a -2,200square-meter plot of land [provided by the Sin al-Fil municipality](#), showcasing the potential for collaboration between private initiatives and local governments. The team also built accessible pedestrian bridges and public parks, seeking community feedback throughout the process. The project garnered enthusiastic support from diverse socio-economic groups who actively participated in planting and nurturing the forest. Initially motivated by goodwill, participants soon recognized the therapeutic and ecological benefits, building sustained engagement and inspiring similar initiatives in other communities (Fiore, 2022).
- ♦ **University-based institutions:** Academic centers contribute significantly by generating data, informing policy, and supporting pilot programs. The American University of Beirut's Nature Conservation Center (AUB-NCC)⁴ serves as a knowledge hub, generating and disseminating research that informs environmental policy and practice. Their focus on biodiversity conservation, sustainable community development, and climate change adaptation highlights the critical role of academia in shaping a more sustainable future for the MENA region. Other research

3. An NBS, as defined by the International Union for Conservation of Nature (IUCN, 2016), is an action that leverages the power of nature to tackle societal challenges, enhance human well-being, and promote biodiversity.

4. The AUB-NCC was founded in 2002 as the Initiative for Biodiversity Studies in Arid Regions (IBSAR) and later renamed to its current name. They are currently part of the European Commission Global Coalition for Biodiversity. Visit their website to get more detailed information about their programs, research, and initiatives: <https://www.aub.edu.lb/natureconservation/Pages/default.aspx>

institutions, also linked to universities, include the Wildfire Risk Management Project of the Institute of Environment at the University of Balamand (funded by USAID), that had been closely working with the Ministry of Environment over the past few years in combating wildfires.

- ♦ **Community-led initiatives:** Grassroots, community-rooted initiatives offer critical models of self-organization and agroecological transition. For example, Nohye al-Ard is a community garden project in Saida that shows grassroots efforts to promote agroecology and food sovereignty. Launched in 2020, the project aimed to transform neglected urban spaces into productive gardens, emphasizing sustainable practices and community ownership (Jabri, 2023). However, it faced challenges in securing land and achieving long-term financial viability, highlighting the difficulties faced by many community-based projects in Lebanon. After a hiatus, Nohye al-Ard re-established their efforts on a new piece of land. The same activists had previously established Lil-Madina in 2013 to address urban development challenges in Saida and advocate for the preservation of the city's ecological systems and cultural heritage (Jabri, 2023). This group has a long legacy of urban activism, initiated in the post2006- Israeli war with the rebuilding of Aita al-Shaab (Saksouk Sasso et al., 2010) and the 2009 rebuilding of the Nahr al-Bared Palestinian camp (Sheikh Hassan, 2019).

5. Progressive Agro-Ecological Movements: Key Actors

This section presents the five selected initiatives (Agricultural Movement, Buzuruna Juzuruna, Jibal, Ardi Ardak, Turba Farm), showcasing their individual work and the connections that often exist between them, highlighting their networks, challenges, and opportunities. Turba Farms, though now discontinued, is included in this analysis as a reminder of the complex challenges facing promising environmental initiatives in Lebanon. As such, valuable lessons can be learned about ensuring the long-term sustainability of such projects.

- ♦ **Agricultural Movement in Lebanon:** The Agricultural Movement in Lebanon (Agrimovement), formalized in Arabic as the NGO Al Haraka Al Zira'iyya fi Lubnan in 2022, is a grassroots initiative born from the «Seed in a Box» project. This project, as described in an interview conducted on August 2024 ,26, aimed to preserve heirloom seeds, recognizing their vital role in biodiversity and food security, particularly in the face of climate change. The group acts as an umbrella organization, uniting diverse environmental and agricultural activists from various backgrounds such as education, communication, and science.

Central to the group's mission is the pursuit of environmental justice and food sovereignty.⁵ They emphasize the importance of heritage seeds and local farming practices as the foundation for what they call “true sustainability.” This includes advocating for the rights of all farmers, regardless of nationality, to earn a fair income and work in a healthy environment. They established a network of farmers who freely share seeds, ensuring their availability and adaptability to local conditions. A key strategy involves empowering small-scale farmers by establishing and supporting open agricultural service centers. These centers offer training programs, access to networks, and resources to enhance farming practices.

The Agrimovement's work spans various regions throughout Lebanon, including the South (near the Blue Line in Sour), the Bekaa Valley, Mount Lebanon, and Tripoli, focusing on areas where the impact of conflict and environmental challenges is most pressing. Their work in southern Lebanon highlights the challenges faced by farmers in the region. These include a -14-month agricultural cycle for tobacco farmers that forces them into debt, exacerbated by the lack of a robust safety net. As they explained in the interview, the escalating impact of climate change, with reduced precipitation and compromised water and power sources, further devastates crops and hinders irrigation. They further add that ecological imbalances,

5. Wittman et al. (2010) defines food sovereignty as the right of populations to take control of their food systems, including “their own markets, production modes, food cultures and environments” (p.2) as an alternative to the dominant model of agriculture and trade. In general, food systems are complex, and they are constantly shaped by transforming socioeconomic, political, cultural, environmental as well as technological factors (Eriksen, 2008). As a result of the ongoing transformation of agricultural practices, the global food chain is now dominated by a few major corporations that control seeds, food production, and distribution sectors (Howard, 2016).

fueled by unsustainable industrial monocropping and the introduction of water-intensive foreign crops such as avocados, are replacing native species and straining resources. Adding to these challenges, the Agrimovement highlights the issue of seawater intrusion affecting coastal areas, particularly in Sour. The overuse and poor management of water wells have historically aggravated this problem, as excessive groundwater extraction lowers the water table, allowing seawater to seep into the emptied spaces. This saltwater intrusion contaminates freshwater sources, leaving the land unsuitable for agriculture. This problem, coupled with a lack of research on the issue, the Agrimovement clarifies, has hindered the development of effective strategies to combat seawater intrusion and protect coastal farmlands. They underscore the urgent need for scientific studies to inform policy decisions, guide sustainable water management practices, and develop innovative solutions to safeguard Lebanon's coastal agricultural sector. Finally, reflecting on the Israeli war in Lebanon, they stress that sanctions and restrictions on NGOs operating in the South further complicate these challenges.⁶

To address these issues, the Agrimovement proposes several solutions:

1. Reforest certain areas with millions of native trees to restore ecological balance.
2. Open agricultural service centers to provide crucial resources, including land, training in ecological farming methods, and access to funding for small farmers.
3. Set up seed production tents and ecological field schools, particularly for displaced and refugee women, to promote seed preservation and food sovereignty.
4. Lobby for a focus on GMO regulation⁷, women farmers' rights, and addressing the exploitation of Syrian workers, who lack representation by syndicates or unions, leaving them vulnerable to abuse.

The interview also emphasized the vital role of women in preserving seeds and safeguarding the land, recognizing them as protectors of agricultural heritage and biodiversity. The Agrimovement currently supports women farmers through training programs, access to resources, and advocacy for their rights.

They emphasize the importance of heritage seeds and local farming practices as the foundation for what they call “true sustainability.”

The Agrimovement also challenges the exploitative nature of capitalist systems, particularly through lobbying against predatory lending practices that burden farmers with debt. They advocate for more sustainable and farmer-centric approaches to agricultural development, critically engaging with international organizations to advance this agenda. Furthermore, they critique the short-term

6. See for instance the case of “Green Without Borders” NGO which was accused of being a cover for Hizballah. Read this article on the issue: <https://english.alarabiya.net/News/middle-east/2023/01/25/Lebanese-environmental-NGO-accused-of-being-Hezbollah-arm>

7. GMO regulation refers to the legal frameworks and processes governing the research, development, and release of genetically modified organisms (GMOs).

focus of some NGOs that prioritize food distribution over addressing the root causes of food insecurity, arguing that this undermines the concept of food sovereignty.

Collaboration is a key aspect of their strategy, according to the interview. They work with various partners, including UN Women in southern Lebanon, and engage funders to ensure alignment with their core principles and objectives. There is also a unique opportunity to influence policy change amidst the growing interest in environmental issues among political parties and their companies and NGOs. These actors often promote narrow agendas focused on technological fixes, such as solar energy and aquaponics, without addressing deeper questions of land justice, sovereignty, and systemic reform. Nevertheless, the Agrimovement views this growing interest as an entry point for dialogue, leveraging it to raise awareness about the importance of food sovereignty, environmental justice, and sustainable agriculture. While they have begun to engage with these actors and advocate for more holistic approaches, their work on policy influence remains limited at this stage, with efforts primarily focused on awareness, capacity-building, and community-level organizing.

Key concerns remain, including funding shortages, the potential for corporate exploitation of environmental crises, and the ongoing political and economic instability. Despite these challenges, the Agrimovement remains committed to its vision of a unified discourse on environmental justice and food sovereignty, achieved through collaboration with public institutions and engagement with existing networks such as [the Arab Network for Food Sovereignty](#), [North African Network for Food Sovereignty](#), and the Coalition for Food Sovereignty.⁸ They also mention their collaboration with organizations like [the Arab Group for the Protection of Nature](#), which operates in Jordan and Palestine and has successfully planted 4 million trees.

Overall, while acknowledging the “dark picture” of the current situation, the Agricultural Movement in Lebanon remains hopeful for the future, committed to empowering small-scale farmers, particularly in the south, and advocating for policies that support sustainable agriculture, fair labor conditions, and access to resources for all farmers. They envision evolving into a self-sufficient political and economic movement, capable of influencing policy and promoting structural changes that advance food sovereignty, social justice, and ecological sustainability.

- ♦ **Buzuruna Juzuruna:** Buzuruna Juzuruna (BJ), meaning «Our Seeds, Our Roots,» is an heirloom seed bank and sustainable farming school operating in Lebanon's Bekaa Valley since 2018. As described in an interview conducted on September ,6 2024, and supported by existing literature, BJ encompasses the Local Seed Movement (Harakat Al Buzur Al Baladiyah), primarily comprising a younger generation new to agriculture but seeking sustainable practices. They collaborate with both traditional and new farmers, facilitating access to local markets for their produce. Their vision also includes establishing a seed house in every village and creating a decentralized and localized food system. A key component of the initiative is a seed production network that distributes heirloom seeds to as many small farms as possible (Cavalcanti & Trinh, 2022). Described as an «active, sustainable, and constantly growing network of engineers, farmers, activists, and

8. The Coalition for Food Sovereignty in Lebanon is a newly emerging coalition that aims to bring together actors working on agroecology. The coalition is still in its early stages of development, and its progress has been slow.

community groups,» BJ promotes agriculture in Lebanon through the transfer of skills, knowledge, and means of production (Turkmani, 2021). Their farming school facilitates experimentation with local seeds, which are then distributed to other farmers, refugee-led gardens in informal tented settlements, and urban gardens.

BJ's method recognizes the opportunity presented by emerging crises in food supply chains to offer alternatives to market-based approaches, particularly given Lebanon's high import dependency for most food products. The wheat shortages resulting from the war in Ukraine, which supplied Lebanon with %80 of its grain imports, further highlighted the need for homegrown seeds (Cundy, 2022). In response, BJ increased its capacity to meet the surge in demand for seeds and knowledge, now advising approximately 800 families per year (Cundy, 2022).

Located in Saadnayel in the Bekaa Valley, which hosts over 360,000 Syrian refugees (El Daoi, 2017), BJ prioritizes social inclusion. They involve both Lebanese and Syrian farmers in decision-making processes, encouraging collaboration on sales and farming strategies. This emphasis on social inclusion is further exemplified by their collaboration with Bulaban Circus, located on the same farm. The farm's focus on social and economic empowerment complements the circus's space for creative expression and emotional healing, creating a holistic approach to community development.

In the interview, one of the founders of BJ also promoted a holistic approach to agriculture, emphasizing the interconnectedness of ecosystems and advocating for food sovereignty linked to economic justice. He also highlighted how the land is deeply connected. For example, a lack of snow on Qurnat asl-Sawda (a mountain peak located 3,088m above sea level) can directly impact plant growth in Anfeh, a town at sea level. «Climate change is severely impacting farmers,» one of the founders explained during the interview. «The precipitation patterns have become erratic. Instead of rain falling over an extended period, we now experience disruptive downpours, which lead to increased soil erosion. Looking at the Bekaa Valley from a bird's-eye view, the signs of desertification are becoming increasingly apparent.»

The precipitation patterns have become erratic. Instead of rain falling over an extended period, we now experience disruptive downpours, which lead to increased soil erosion.

He explained that BJ also faces numerous challenges, as funding concerns hinder their ability to expand programs and reach more communities. Additionally, they encounter resistance from farmers who are hesitant to adopt new, ecologically focused techniques, often due to ingrained traditional practices or concerns about immediate yields.

BJ envisions a future where their work becomes obsolete, having achieved food sovereignty for all. They actively collaborate with organizations such as Jibal (discussed below) and SOILS Permaculture Association Lebanon⁹, sharing resources

9. SOILS Permaculture Association Lebanon is a facilitator for the teaching, training and sharing of skills and resources related to sustainable and environment-friendly practices. <https://www.soils-permaculture-lebanon.com/about-soils.html>

and knowledge to support sustainable farming practices. BJ also mentioned being part of the Coalition for Food Sovereignty in Lebanon, contributing to the development of a manifesto and seeking local accreditation for the coalition from the government, with future plans focused on policy and advocacy work to address the complex challenges facing agriculture in Lebanon. However, the current progress and specific activities of the coalition remain unclear.

- ♦ **Jibal:** Founded in 2018 by an engineer with expertise in renewable energy and a passion for environmental activism, Jibal, as described in an interview conducted on August 2024, 22, integrates technical knowledge with anthropological insights to address environmental issues. Initially focused on environmental education, Jibal conducted school sessions exploring the interplay between environmental concerns and social dynamics, including green public spaces and municipal governance.

The 2019 crisis in Lebanon prompted a shift in Jibal's priorities towards food sovereignty, a concern that resonated with team members and collaborators already interested in farming and agriculture. This shift was further catalyzed by funders who expressed interest in supporting agricultural projects. Jibal recognizes that food is inherently social, encompassing production, consumption, and the interconnected relationships between people and the environment. This understanding led them to explore environmental justice, drawing from a background in anthropology and anti-racism work.

[Jibal's 2023 annual report](#) focused on promoting sustainable food production by supporting farmers transitioning to agroecology and providing assistance to local organic input providers. The Jibal team researched the factors influencing the adoption of sustainable agriculture in Lebanon. They also worked on creating alternative access to markets for farmers, including developing a participatory certification system and supporting affordable grocery shops and farmer-owned sales cooperatives. The organization also prioritized territorial food planning to enhance food sovereignty, working on strategies in the Zgharta region and Majd al-Meouch. Education is central to Jibal's work, with activities such as environmental workshops, field trips, and the publication of reports (in both English and Arabic) and curricula on learning gardens. The organization also supported educational institutions such as the Chatila Children and Youth Center.

Jibal's team approach to project implementation is grounded in building local relationships and leveraging existing networks. They prioritize working in areas where they have established connections and knowledge, exemplified by their work in Zgharta, where team members have strong ties to the community. This approach allows them to effectively engage with local stakeholders (mukhtars and existing cooperatives) and adapt their projects to specific contexts. They also emphasize knowledge sharing and dissemination. By documenting and publishing their findings, they enable other organizations to replicate and adapt successful projects in different regions.

One interviewee mentioned that they learned valuable lessons from past experiences. In 2020, a large funder involved them in a project that required them to adopt a more conventional NGO approach, training 120 farmers through outreach to local representatives. This experience led them to reconsider their strategy and shift towards working more closely with smaller groups of farmers. Currently, they

collaborate with around 15 farmers for two-year periods, supporting their transition to agroecological practices. This approach emphasizes depth over breadth, aiming to create a network of knowledgeable and empowered farmers who can, in turn, promote these practices within their communities. They are also working towards developing regional and local food sovereignty strategies to counter the prevailing trend of opportunity-based interventions. Jibal stated that they believe in a more planned and coordinated approach to promote agroecology and ensure long-term food security.

Jibal is promoting socially conscious grocery stores in Lebanon, collaborating with organizations such as Dekken Al Mazraa¹⁰ and Nation Station.¹¹ These stores prioritize local and environmentally sustainable products while ensuring they remain affordable. The team is also working on a publication that compares various social and cooperative grocery models in Lebanon with international examples, aiming to share best practices and inspire further initiatives.

Food is inherently social, encompassing production, consumption, and the interconnected relationships between people and the environment.

In collaboration with Jibal, the Switch Perspective¹² group initiated a project focusing on narratives surrounding migration. However, challenges in communicating Jibal's own narrative led to the emergence of [Land Stories](#), another collaboration between Jibal and Switch Perspective. This project aims to elevate the voices of farmers and challenge prevailing assumptions about agriculture. Land Stories emphasizes the importance of farmers' lived experiences and knowledge. It questions conventional notions of innovation, suggesting that farmers' experimentation and adaptation are often overlooked or undervalued. The project aims to showcase the farmers' expertise and agency, allowing them to narrate their own stories and redefine their understanding of agriculture. The stories included in the project prioritize gender and social inclusion by focusing on women farmers, including those from Syrian backgrounds.

Over the summer of 2024 (June-August), Jibal was instrumental in establishing an informal network of agroecology actors in Lebanon. This network, which includes organizations like Buzuruna Juzuruna, SOILS Permaculture Association Lebanon, and Mada,¹³ facilitates knowledge exchange and collaboration. Interviewees also mentioned that the emerging Coalition for Food Sovereignty in Lebanon emphasizes transparency and avoids overlapping efforts, allowing for more efficient

10. Dikken el Mazraa is a solidarity grocery in Beirut, founded in 2020 in Ras al-Nabeh. It relocated to Mazraa in 2022. It offers quality products at prices based on members' financial situations. See: <https://dikkenelmazraa.com/>

11. Nation Station is a volunteer and activist hub established in 2020 following the Beirut port explosion. Located in Geitawi, a blast-affected area, it emerged from the Lebanese youth's response to government inaction. See: <https://nation-station.org/>

12. Switch Perspective is an organization co-founded by Angela Saadeh, who is also a co-founder of Jibal, an environment and social justice association. Switch Perspective conducts workshops and trainings for journalists and civil society on topics like migration and media representation, emphasizing self-reflection and analysis. They collaborate with Mashallah News in Lebanon. See: <http://switch-perspective.com/about/>

13. Mada is a non-partisan, non-sectarian Lebanese NGO established in 2000 that focuses on environmental issues and community engagement. They work on various developmental and environmental projects, primarily in northern Lebanon, promoting local participation and sustainable solutions. See: <https://mada.org.lb/>

and impactful initiatives. Currently, the coalition is focusing on developing internal governance structures and defining a shared strategy to amplify its collective voice and advocate for greater support for agroecological practices. However, they raised concerns regarding the potential limitations of their impact on policy change.

Jibal's main funding source is international, though they also receive some support from within their informal network (such as from Mada). They are exploring alternative funding models, such as selling training programs and consultancies, to reduce dependency on external grants. The challenge of securing funds while maintaining autonomy is evident, as exemplified by a situation where they said they considered renewing a contract with a difficult funder to secure employee salaries. This experience highlighted the importance of creating contingency funds to ensure organizational stability.

On a policy level, Jibal acknowledged the difficulties in achieving policy change in Lebanon's complex political landscape. While they recognized the importance of advocacy, they are still in the process of defining objectives for their food strategy campaigns. They cited the [Ministry of Agriculture's 2025-2020](#) plan as a good strategy, though it has faced implementation challenges. Their interactions with the Ministry of Agriculture's local representatives have been mixed, with some demonstrating a defensive stance towards Jibal's initiatives. However, interviewees said they remain committed to engaging with relevant stakeholders and promoting a more inclusive and participatory approach to agricultural policymaking.

- ♦ **Ardi Ardak:** Ardi Ardak, meaning «My Land is Your Land,» emerged from Lebanon's 2019 economic crisis and the resulting food insecurity. As described in an interview conducted on August 2024,¹² Ardi Ardak began as a grassroots initiative launched by the American University of Beirut (AUB) to revitalize the nation's agricultural sector and empower small farmers. A key objective was to dismantle the «middleman» system that often exploits small farmers by buying their products at low prices and selling them at significantly higher prices. Initially, Ardi Ardak focused on building a network to directly connect farmers to urban markets and establish a community kitchen in Beirut.

Recognizing the need for long-term financial viability, Ardi Ardak transitioned into a for-profit joint-stock company (SAL) in 2022. This shift allowed them to expand their services to include land management, sales of eco-friendly agricultural products and technologies, and educational programs in partnership with Nafda.¹⁴ A core focus of their land management service caters to landowners who are unsure how to best utilize their agricultural land. Ardi Ardak provides investment and expertise, developing financial plans and implementing solutions, including urban rooftop farming initiatives. While this diversification demonstrates adaptability and a commitment to sustainable growth, it also raises questions about balancing profit-driven motives with their core social mission of empowering Lebanese farmers to sustainably manage their farms, enhance their livelihoods, and remain rooted in their rural communities—an issue that will be further explored in the discussion section of this report.

Since its official launch in mid2023-, Ardi Ardak has been primarily funded by

14. Nafda is an education-focused social change movement. <https://nafdalebanon.org/>

investors, shareholders, and friends. They have also sought external funding through grant applications, including to the World Food Programme (WFP). Despite not yet securing any grant funding, the organization reports receiving positive responses from potential funders.

Currently a small company with limited staff, Ardi Ardak operates with a lean and localized approach, typically hiring individuals from the areas where their projects are based. They have five to six active agricultural projects across Lebanon, including a multi-integrated farm management system in Adloun, in the south, which faced setbacks when investors withdrew support due to the recent Israeli war. Still, the company hires local engineers to oversee projects and ensure their successful implementation.

Ardi Ardak is planning to host roundtable discussions with various stakeholders, including private entities, public sector representatives, AUB experts, and small businesses, to assess the current state of Lebanon's agricultural production and chart a course toward future goals. Additionally, they conducted a comprehensive land assessment through a project called «Basateen,» hypothesizing long-term land tenure agreements between farmers and landowners to explore how such agreements could enhance sustainability and economic returns for farmers. This assessment generated crucial data on the availability and usage of agricultural land in Lebanon, including the proportion of Waqf ("Endowments") land.¹⁵

A key objective was to dismantle the «middleman» system that often exploits small farmers by buying their products at low prices and selling them at significantly higher prices.

While acknowledging challenges such as increasing visibility among target demographics, refining their market strategy, and securing further funding, Ardi Ardak remains optimistic. The inherently slow return on investment in agriculture is noted but not considered a major impediment. Surprisingly, given the complexities of Lebanon's sociopolitical landscape, the interviewee mentioned no significant issues with project implementation, attributing this success largely to the extensive banking and private sector network of their CEO. This suggests that Ardi Ardak may be uniquely positioned to navigate challenges that would typically hinder similar initiatives.

- ♦ **Turba Farm:** [Turba Farm](#), a women-led organic, regenerative farm based in Zahle, offers an inspiring example aligning with themes of sustainable agriculture and social inclusion. As revealed in an interview with one of the founders, supplemented by online research, the farm ceased operations in 2023 after a three-year run. Turba Farm was established in 2021 as an organic farm cultivating diverse vegetables and heirloom grains, with produce sold through weekly boxes and farmers' markets. Despite securing a waste management grant for compost toilets, the farm ultimately succumbed to financial unsustainability. This was exacerbated by the global economic crisis and the war in Ukraine, hindering fundraising efforts.

15. Waqf land is land or property owned by a religious institution (such as a church).

The farm's name, «Turba» meaning soil in Arabic, reflects its core value of prioritizing soil health. The organization was founded in 2020 with a 25,000\$ grant from the Rockefeller Foundation Food System Vision Prize, with a farm model created by Farms Not Arms¹⁶, an American design collective that launched in 2019. Farms Not Arms focuses on regenerative land design based on permaculture principles. Farms Not Arms is currently inactive in Lebanon.

Despite facing challenges, Turba Farm demonstrated the potential for profitability when implemented by farmers on their own land, offering a pathway for sustainable livelihoods and community empowerment. Turba Farm created employment opportunities with above-average wages, directly and indirectly impacting over 700 customers and farmers, while generating more than 10,000 kilograms of organic produce. They actively participated in the Heirloom Seed Saving Network (headed by Buzuruna Juzuruna, as mentioned above), further highlighting their contribution to sustainable agriculture and food sovereignty in Lebanon.

However, the labor-intensive nature of the work, coupled with the high cost of land rental, yielded minimal returns, forcing reliance on external funding, which ultimately proved unsustainable.

While the farm engaged with the municipality and church in Zahle, the latter's opposition to including Syrian farmers posed a challenge. This experience made Turba Farm rethink its strategy of openly stating that Syrians would be involved in the project, suggesting that a less transparent approach might have been more feasible. This highlights the complexities of navigating social and cultural dynamics while promoting inclusivity in agricultural initiatives, particularly in contexts where precarious groups face discrimination or marginalization.

Their story serves as a valuable lesson on the challenges of establishing and sustaining agricultural initiatives in Lebanon's volatile economic environment, emphasizing the importance of financial sustainability and community partnerships.

16. Farms Not Arms is a collective established in 2019 (originally incubated by NY-based NGO Peace Accelerators) that promotes food security, climate change solutions, and social cohesion through integrated farm models. Spearheaded by ioi strategic design, the collective works collaboratively to develop these solutions. See: <https://www.designfarmsnotarms.org/about>.

6. Barriers and Opportunities for Environmental and Climate Advocacy

This report has identified a diverse range of progressive environmental movements in Lebanon working towards food sovereignty, heirloom seed preservation, and agroecological farming practices. These movements encompass a spectrum of approaches, from entrepreneurial to grassroots and community-based. Based on our interviews and desk research, the report argues that there exists a critical mass of progressive environmental movements in Lebanon, with a relatively solid understanding of the intersectionality of environmental issues, their gendered dimensions, and their embeddedness in land and food issues. Yet, the report also observes that these movements are dispersed, operating in silos, though they are attempting to consolidate their efforts in coalitions. It also notes high dependency on international donors' agendas and funding, and high instability in operations, closely associated with geopolitical and financial instability, especially over the last five years.

1. Barriers

- ◇ **Middle-classness, foreign-based education, social mobility:** Many progressive environmental movements are led by middle-class individuals, often educated abroad or in English- and French-speaking private schools and universities. This social positioning may shape the motivations, strategies, and sustainability of their engagement. In some cases, participation is part-time or temporary, linked to personal aspirations for social mobility or to broader political and funding conjectures, which can create uncertainties around long-term commitment. That said, more research is needed on the sociological profiles of members and leaders across different types of initiatives to better understand how class, education, gender, and geography shape forms of participation and movement longevity. Importantly, some grassroots or community-led initiatives actively draw on traditional ecological knowledge and inherited land practices.
- ◇ There is incoherence in the definition of «environmental justice» among movements. Current initiatives appear to be in a phase of experimentation and narrative-shaping, grappling with the concepts of justice, food sovereignty, and their implications for systemic change. This echoes global movements (such as the National Association of Rural and Indigenous Women in Chile¹⁷ and the Latin American Agroecology Movement),¹⁸ particularly in Latin America, where these

17. ANAMURI (Asociación Nacional de Mujeres Rurales e Indígenas) is a Chilean organization that empowers rural and Indigenous women through network building. Food sovereignty is central to their mission, achieved by providing training in agroecology, food production practices, and food sovereignty awareness. ANAMURI collaborates with various groups, including peasant organizations, environmental organizations, unions, and researchers, to promote agroecological practices, political education, and gender equity in schools. See: <https://www.anamuri.cl/>

18. The Latin American Agroecology Movement (MAELA) is a coalition of more than 150 organizations promoting sustainable development based on agroecology and local knowledge. See: <https://maelac.wordpress.com/>

concepts have been central to struggles for social and environmental justice (Cid Aguayo and Latta, 2015; Carrasco-Torrontegui et al., 2021). Yet, while Lebanese movements are actively experimenting with strategies and engaging in progressive narratives, there remains a lack of clarity on what justice means to each movement and how they operationalize the concept and translate it into concrete environmental and climate actions, as mentioned by one of our interviewees. As such, broader questions of what constitutes environmental and climate justice remain open.

- ◇ While many environmental actors acknowledge the value of traditional and local knowledge, particularly from smallholder farmers, actual integration of these knowledge systems into organizational decision-making remains uneven. Some initiatives, especially those that are community-led or rooted in agroecological practices, have made efforts to center farmer participation and incorporate local knowledge into the design and implementation of their projects. However, across other types of initiatives, organizational structure tends to be more top-down. Farmers and community members are often engaged as beneficiaries or field collaborators, but it is unclear to what extent they influence strategic decisions or organizational priorities. In many cases, the introduction of climate-smart technologies or regenerative practices occurs through expert-driven frameworks, where power dynamics are skewed in favor of external “specialists.” Experiments in procedural environmental justice, where affected communities are involved meaningfully in decisions about land use, environmental planning, or resource management, are still rare. There is a need for more deliberate approaches to participatory governance, where community members are not only consulted but hold actual decision-making power.
- ◇ **Fragmentation** is a significant barrier. Despite shared objectives, many initiatives operate in silos, limiting collaboration and knowledge exchange. This fragmented approach hinders the collective impact of these movements, constraining the sharing of vital resources, strategies, and expertise. While there are examples of collaborative efforts, such as the informal network between Buzuruna Juzuruna, Jibal, SOILS, and previously Turba Farm, many other movements appear to be working in isolation. This creates a landscape where a few organizations form a collaborative bloc, while others remain disconnected, potentially duplicating efforts and missing opportunities for synergy.
- ◇ **Donor dependency and threats of co-optation and depoliticization:** While environmental NGOs and community-led initiatives aspire to operate as self-sufficient, financially autonomous organizations, free from reliance on external funding, this goal remains very challenging. In seeking financial support, some organizations may be compelled to compromise their radical agendas, align with mainstream discourses, or avoid antagonizing powerful state or corporate actors. This compromise can dilute the transformative potential of these movements, shifting their focus away from systemic change and towards more palatable, incremental reforms that may not adequately address the root causes of environmental injustice. The concern here lies in externally imposed depoliticization, where the framing of environmental issues in purely technical or market-based terms obscures their underlying political and social causes (Bäckstrand & Lövbrand, 2006; Maniates, 2001). When donor frameworks prioritize “safe” solutions like eco-tourism, solar panels, or awareness campaigns without addressing land rights,

extractivism, or inequality, they risk co-opting movements that originally sought more profound change.

- ♦ **Inability to imagine alternative ownership systems:** The entrenched system of private land ownership presents a significant barrier to these movements' goals. As seen in the case of Nohye al-Ard, while the movement actively advocates for sustainable agricultural practices and food sovereignty, it has yet to engage in substantive discussions around alternative models of land ownership, such as community land trusts or other forms of collective ownership.
- ♦ Deeply entrenched capitalist and sectarian dynamics in Lebanon pose serious challenges for movements that envision radical systemic change. The dominance of profit-driven motives and entrenched power structures often stifles collective action aimed at social and environmental justice. These systems prioritize individualistic pursuits and reinforce existing hierarchies, hindering movements with radical visions from gaining traction and sustaining their efforts over time. This resonates with critiques of capitalist approaches to environmentalism, which often prioritize profit and technological fixes over addressing systemic issues of inequality and exploitation (Chatterjee, 2017; Gilio-Whitaker, 2019).

2. Opportunities

- ♦ **Building coalitions:** There is potential for sharing resources and expertise as well as for the co-production of a shared narrative and a coordinating structure for these movements. A collective front could significantly amplify their voices and strengthen their lobbying efforts to advocate for policy changes and systemic transformation within Lebanon's food and agriculture systems. There have been attempts through the creation of the Coalition for Food Sovereignty in Lebanon, but progress has been slow and interrupted by crises, the recent war, and vague intentions. A more proactive and concerted effort to solidify the coalition's structure, define its objectives, and connect and mobilize its members could significantly enhance its potential to influence policy changes in Lebanon. Notably, during the recent Israeli war on Lebanon, several of the studied initiatives and actors collectively organized their solidarity work, especially towards displaced groups in schools, creating the inclusive umbrella crowdfunding platform al-Nass lil Nass ("People to People"). The platform brought together Buzuruna Juzuruna, Nation Station, Clown Me In, Time for Solidarity, Offre-Joie, Nahnnoo, Arc-en-Ciel, and others.¹⁹
- ♦ **Exploring alternative forms of land ownership and resource management:** All actors must discuss more transformative approaches to land management and resource distribution. They should also explore alternative ownership models in promoting social and environmental justice, particularly in contexts where traditional land ownership patterns contribute to inequality and environmental degradation (Lipietz and Bhan, 2018). Some initiatives in Lebanon have already begun experimenting with the use of municipal or publicly owned land for agroecological and community-based projects (e.g. [Seed in a Box](#) with al-Beddawi municipality; or the [hima model](#), applied by the Society for Protection of Nature in Lebanon, though it has no legal implication), demonstrating the potential of such outlooks. Building on these examples, environmental actors could play a key role in

19. See their Instagram page here: <https://www.instagram.com/peopletopeople.lebanon?igsh=MmU3Y3l5Mzlj2J0>

catalyzing additional experiments around land justice, moving toward more inclusive, participatory, and equitable forms of ownership. Embracing this opportunity would not only support more secure access to land for grassroots initiatives, but also challenge speculative markets and fragmented regimes that currently limit long-term sustainability.

- ♦ **Further integration of local knowledge in decision-making systems:** There is a significant opportunity for environmental movements in Lebanon to more meaningfully engage with and integrate local and traditional knowledge into their strategies and governance models. Farmers, seed keepers, herders, and rural communities hold rich, place-based knowledge systems that can greatly enhance the relevance, sustainability, and legitimacy of environmental initiatives. While some community-led movements have already begun to center farmer expertise and participatory practices, this approach could be expanded to all types of actors. By adopting participatory decision-making processes, where local actors are not merely consulted but actively involved, environmental initiatives can build more resilient, inclusive, and grounded solutions. Doing so also opens the door to procedural environmental justice, where affected communities help shape the interventions that impact their lives and environments. Supporting such models would not only bridge the gap between scientific and traditional knowledge but also challenge top-down approaches that often marginalize local voices.
- ♦ **Bolder engagement with high-level policy and systemic issues:** A long-term vision and strategy for sustainable food sovereignty necessitates addressing systemic issues and advocating for policy changes. Engaging with the political sphere is essential for achieving lasting and meaningful change within food systems (see, for instance, Sumberg and Thompson's findings that demonstrate this in the context of Africa, 2012). Most interviewees were keenly aware of the systemic issues that prevent effective implementation of environmental policies in Lebanon, and their relation to sectarian political economy and oligarchies, yet they were reluctant to engage with higher-level policy issues and advocate for systemic change. This is often attributed to the complexities and perceived intractability of the sectarian system. Actors must tactically navigate the political landscape for short-term project implementation but remain aware of opportunities for broader impact and transformation.

* * *

The progressive movements mapped above largely operate within the second horizon (H2) and showcase innovative solutions that contribute to addressing critical issues such as food sovereignty, sustainable agriculture, and environmental justice through tangible operational initiatives that advocate for more just and equitable systems. Yet, they could risk falling back into H1 mainstream patterns. Indeed, some initiatives, particularly those driven by profit and adopting a more entrepreneurial approach, may prioritize maintaining the status quo and fail to fundamentally challenge the dominant economic model. Others may disappear entirely, unable to sustain their efforts within the challenging context of Lebanon. Transitioning to the third horizon (H3) requires a broader societal shift towards a more just and equitable economic model that prioritizes ecological well-being and social justice. This necessitates a more active engagement with policy and a willingness to challenge existing power structures.

By adopting participatory decision-making processes, where local actors are not merely consulted but actively involved, environmental initiatives can build more resilient, inclusive, and grounded solutions.

The willingness to move beyond the H2 horizon is evident in the future plans of some organizations, such as the Agricultural Movement in Lebanon, which has explicitly stated its intention to engage in policy and advocacy work. Similarly, the Coalition for Food Sovereignty in Lebanon has outlined a policy phase in its long-term strategy, as indicated in one of the interviews. This offers some hope that Lebanon's environmental movements could evolve towards a more politically engaged and transformative approach, particularly if they can better collaborate and develop a unified vision for systemic change. Indeed, «social movements are more likely to achieve their goals when they can build broad coalitions, develop shared strategies, and effectively engage with policy processes” (Lang and Mokrani, 2013).

7. Conclusion

In closing, this report has explored the diverse and dynamic landscape of environmental and climate movements in Lebanon, showing how actors engage with questions of sustainability, justice, and transformation. A key insight that arises from this mapping is the tension between discourse and practice—for example, the question of community participation. Many initiatives position themselves as participatory, yet it remains unclear whether communities, especially farmers and rural actors, are genuinely empowered to shape the direction of those projects or are primarily treated as beneficiaries. Truly transformative agroecological transitions require co-learning, shared decision-making, and joint action—a mode of engagement that is still to be developed in Lebanon’s environmental field.²⁰

Using the Three Horizons framework, this report situates Lebanon’s environmental movements across a continuum of change. Horizon 1 (H1) encompasses actors operating within the dominant neoliberal framework, which prioritizes technical fixes, market-based mechanisms, and apolitical narratives. These actors often focus on service provision and incremental reforms but rarely question underlying power structures (for example, LCEC). Horizon 2 (H2) represents a space of experimentation, where actors begin to push beyond the limitations of H1 by testing out agroecological practices, alternative governance models, and solidarity economies. While some of these interventions may appear incremental, their orientation is transformative: they seek to build new systems from within the cracks of the old. Finally, Horizon 3 (H3) embodies the aspirational future, where environmental and social justice are embedded in political, economic, and cultural life.

Overcoming fragmentation would allow movements to pool resources, amplify impact, and build a more coherent collective voice for policy advocacy.

Many of the identified movements in the interviews and in Table 1 operate in the H2 space, actively experimenting with agroecology, food sovereignty, seed saving, and collective land practices, but face systemic constraints that limit their reach and sustainability. Their work is often precarious, shaped by donor dependencies, insecure land access, and fragmented organizational landscapes. Meanwhile, the influence of H1 logics such as technocratic environmentalism, donor-driven agendas, and elite-led sustainability narratives remains dominant in most initiatives.

A more holistic approach to addressing existing challenges is needed—one that acknowledges the interconnectedness of environmental issues with social, economic, and political policies and practices and recognizes that sustainable solutions must be

20. One example highlighted in Pimbert and Tittonell’s work (2019) is the case of farmer-led agroecological schools in Latin America. These schools provide a platform for farmers to share their knowledge and experiences, learn from each other, and develop innovative solutions to agricultural challenges. This process of co-learning and knowledge exchange empowers farmers to take ownership of their agroecological transitions and make decisions based on their local contexts and needs.

rooted in local knowledge and community needs. This is widely acknowledged by the growing body of literature advocating for a systems-thinking perspective in environmental governance (Meadows, 2008; Ostrom, 2009; Hackmann and St. Clair, 2012). As Hackmann and St. Clair (2016 :2012) argue, it is essential to understand environmental challenges as «social processes embedded in specific social systems, past and present.»

Finally, there is an opportunity for greater collaboration and coordination among diverse actors. Overcoming fragmentation would allow movements to pool resources, amplify impact, and build a more coherent collective voice for policy advocacy. The Coalition for Food Sovereignty in Lebanon, while still nascent, is an important step in this direction. Its success, however, will depend on sustained commitment, inclusive leadership, and strategic alignment across varied initiatives. Without a strong foundation, there is a risk that it will follow the path of other short-lived efforts that emerged in moments of crisis but failed to generate lasting transformation.

Lebanon's environmental challenges, from deforestation and land degradation to biodiversity loss and the destruction of marine ecosystems, require systemic, intersectional responses. Public awareness is growing, but policymaking remains fragmented and largely detached from justice-centred approaches. It is also essential to expand the environmental lens to include the recent destruction of ecological and marine sites, particularly in the wake of ongoing Israeli assaults.

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List of Semi-Structured Interviews

Interview 1: University Professor, Expert
Date: August 2024 ,12

Interview 2: Project Manager, Agricultural Engineer, Ardi Ardak
Date: August 2024 ,12

Interview 3: Co-Founder, Jibal
Date: August 2024 ,22

Interview 4: Co-Founders, Agri-Movement
Date: August 2024 ,26

Interview 5: Student researching agricultural movements in Lebanon
Date: August 2024 ,27

Interview 6: Co-Founder, Buzuruna Juzuruna
Date: September 2024 ,6

Interview 7: Co-Founder, Turba Farms
Date: September 2024 ,11



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