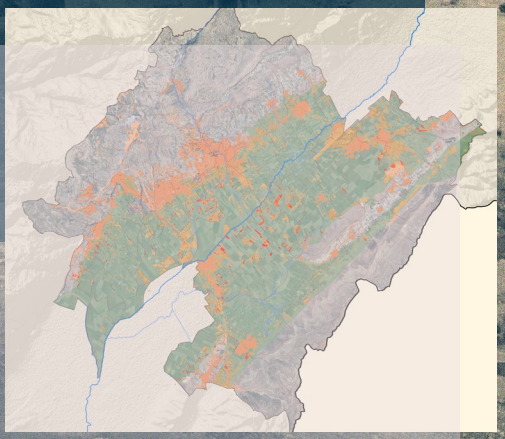
THE POLICY INITIATIVE

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

Territorial Planning and Environmentalism in Lebanon: For nature or for capital?

Mona Khechen

February 2026



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Territorial Planning and Environmentalism in Lebanon : For nature or for capital?

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List of Acronyms

AFD	Agence Française de Développement
APACs	Appointed Protected Area Committees
CBD	Convention on Biological Diversity
CCAs	Community Conserved Areas
CDR	Council for Development and Reconstruction
DGUP	Directorate General for Urban Planning
CHUD	Cultural Heritage and Urban Development
DLRC	Directorate of Land Registry and Cadastre
EBRD	European Bank for Reconstruction and Development
EC	European Commission
EIA	Environmental Impact Assessment
EIB	European Investment Bank
ESG	Environmental, Social, and Governance metrics
FAO	Food and Agriculture Organization
GEF	Global Environment Facility
GDP	Gross Domestic Product
GEFF	Green Economy Finance Facility
GHG	Greenhouse Gas
HCUP	Higher Council for Urban Planning
ICDPs	Integrated Conservation and Development Projects
IDAL	Investment and Development Authority of Lebanon
IFIs	International Financial Institutions
LANE	Lebanese Advocacy Network for Environment
LGIF	Lebanon Green Investment Facility
LMT	Lebanon Mountain Trail
LMTA	Lebanon Mountain Trail Association
MoA	Ministry of Agriculture
MoIM	Ministry of Interior and Municipalities
MoPWT	Ministry of Public Works and Transport
NARP	National Afforestation and Reforestation Programme
NPMPLT	National Physical Master Plan of the Lebanese Territory
PAs	Protected Areas
PCAs	Protected and Conserved Areas
PES	Payments for Ecosystem Services
REDD+	Reducing Emissions from Deforestation and Degradation (plus other forest-friendly actions)
SALMA	Smart Adaptation of Forest Landscapes in Mountain Areas
SBR	Shouf Biosphere Reserve
SDGs	Sustainable Development Goals
SEA	Strategic Environmental Assessment
SOER	State of the Environment Report
TALD	Territorial Approach to Local Development
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNFCCC	United Nations Framework Convention on Climate Change
UNEP	United Nations Environment Programme
UoMs	Unions of Municipalities

Abstract

This research report examines territorial planning and conservation in Lebanon as contested arenas shaped by unequal power relations. It conceptualizes territory as a socially produced space shaped by human–nature interaction, and environmentalism as encompassing practices, advocacy, and institutional efforts to protect biodiversity and significant landscapes. Drawing on the notion of "natural capital," it asks whether territorial planning and environmentalism primarily serve nature protection or capital accumulation. Based on an analysis of conservation legislation and practice, the report identifies land politics, elite capture, and governance gaps as major barriers to effective conservation. Echoing the National Physical Master Plan of the Lebanese Territory (NPMPLT), it highlights landscape continuity as a strategy for national unity. Accordingly, it proposes future directions centered on collective action and stronger protection of living environments, positioning humans as their custodians and dependents rather than owners.

Disclaimer: The initial draft of this report was completed in September 2024. It was put on hold due to the escalation of the Israeli assaults on Lebanon at that time. The report was updated and finalized in the second half of 2025. However, war-induced environmental and landscape devastation remains outside its scope.

Introduction

Since the early 1990s, Lebanon has faced a growing range of critical environmental issues, including improper solid waste disposal, water and soil pollution, beach privatization, deforestation, quarrying, and ineffective dam projects. Despite their variety, these pressing problems are essentially symptoms of Lebanon's systemic failure to protect its natural resources and cultural landscapes for the public good. This reality raises broader questions about environmental governance, as well as more specific ones regarding the extent to which adopted territorial development policies and plans integrate economic, social and ecological concerns. It also highlights the dilemma of the natural commons and the urgent need to rethink land governance to enable sustainable and equitable management of the country's natural wealth.

The fundamental contradiction in how land and natural resources are valued by different social actors is central to this debate. Conflicting interests between the "use values" and "exchange values" of land and its resources lie at the heart of many socio-environmental disputes—not only in Lebanon, but worldwide (Schnaiberg, 1994). Land holds multiple values and meanings, making it a source of social and class-based conflicts (Swyngedouw & Ward, 2022). It is a basic element of nature, a means of subsistence, a symbol of power, and a human right linked to rights to housing, food, and water (FAO & UNEP, 1992). In economics, land is considered both a scarce resource and a financial asset, central to economic growth and capital accumulation (Hubacek & van den Bergh, 2006). While mainstream economists view it as real property and a tradable commodity, critical political economists argue that land is embedded in social relations. From the latter perspective, the complex systems that regulate land use and rent can be unjust (Swyngedouw & Ward, 2022; Hyötyläinen & Beauregard, 2023), reinforcing processes of "primitive accumulation" (Marx, 2014 [1867]) and "accumulation by dispossession" (Harvey, 2003).

Conflicting interests between the "use values" and "exchange values" of land and its resources lie at the heart of many socio-environmental disputes—not only in Lebanon, but worldwide.

Regardless of how land is valued, land governance is fundamentally shaped by power dynamics and the political economy of land (Palmer et al., 2009). It encompasses the institutions, rules, and processes that regulate land, including decisions on access to, use of, and control over land and natural resources. These decisions determine who benefits from land, who is excluded, and how competing interests are managed, often reflecting and reinforcing broader societal power structures.

This research report underscores the critical role that territorial planning (also known as spatial planning) can play in reconciling or exacerbating conflicting claims. It focuses on environmentalism as a concept encompassing concerns, practices, advocacy, and institutional actions aimed at protecting biodiversity and significant landscapes, referred to here as "natural wealth." Against the backdrop of Lebanon's market-driven economy, sectarian power-sharing political system, and current social realities, the report asks whether territorial planning and environmentalism primarily serve nature

protection or capital accumulation. Using a political economy lens, it examines the interplay between planning and conservation, treating both as arenas of contestation mediated by uneven power relations.

Based on an analysis of conservation legislation and practice, the report highlights land politics, elite capture, and governance gaps as major barriers to the effective protection of Lebanon's natural wealth. In alignment with the recommendations of the National Physical Master Plan of the Lebanese Territory (NPMPLT), it identifies landscape continuity as a key strategy to unite the country. Concurrently, the report calls for collective action and stronger protection of living environments—such as forests, beaches, and rivers—by positioning humans as their custodians and dependents rather than their owners. By doing so, it aims to provide pathways for future research and policy dialogue that encourage new ways of thinking about territorial planning and governance.

Methodologically, the report adopts a qualitative, interdisciplinary approach, combining conceptual insights with a review of context-specific studies (including news articles and legal and regulatory analyses), case-based inquiries, and empirical findings from fieldwork conducted primarily under previous relevant projects, complemented by additional inquiries to fill information gaps and develop specific case studies (see Appendix 1).

The report is divided into six sections. The first outlines the conceptual and analytical framework. The second presents an overview of Lebanon's flawed planning system. The third and fourth examine existing legal instruments, regulatory frameworks, and practical initiatives aimed at protecting Lebanon's natural wealth. The fifth examines the persistent structural challenges shaping planning and conservation outcomes. The final section outlines key directions to guide future research and stimulate critical policy discussions.

1. Core Concepts and Thematic Debates

Three interrelated concepts frame this report: territorial planning, environmentalism, and natural capital. In considering them together, the investigation positions territorial planning as a central tool of land governance, where environmental rationalities intersect with economic valuation and land-use and development regulations. The juxtaposition of "nature" and "capital" in the report's subtitle is not intended as a binary question but rather as a wordplay on the latter concept, highlighting the tensions and entanglements embedded in decisions related to land management and landscape conservation. Anchored in a political economy perspective on land and natural resources, this analytical framework draws on critical debates in international literature surrounding sustainable development, social justice, and the commodification of nature. This section elaborates on these core concepts and the broader tensions they embody, establishing an analytical orientation for examining the case of Lebanon in subsequent sections.

Territorial Planning: Between Integration and Fragmentation

Territorial planning is a key instrument for organizing land use, infrastructure, and public services. It can significantly impact people and the environment. That can be positive, by promoting compatible land uses, equitable resource distribution, and environmental conservation; or negative, by enabling the appropriation of land and natural resources for private gain at the expense of local communities and ecosystems.

The term corresponds to equivalent terms in Neo-Latin languages, such as *l'aménagement du territoire* (French), *pianificazione territoriale* (Italian), and *planificación territorial* (Spanish). Its roots lie in the concept of "territory" *(territorium* in Latin), which derives from terra, meaning earth, land, or terrain. Some scholars also trace its origin to the Latin word *terrere*, meaning to terrify or frighten away, underscoring the spatial dimension of power that manifests in acts of exclusion and constant vigilance against threats and transgressions (Elden, 2009).

Traditionally, territory has been understood as a bounded space claimed or controlled by a certain state, particular social groups, or individuals (Paasi, 2003). In political geography and political science, it is often linked to sovereignty and defined borders. By contrast, disciplines such as human geography and regional planning have expanded the term's meaning, viewing territory as a dynamic material space, socially produced by human interaction with nature and power relations (Schmid, 2016).

Building on this relational understanding, several scholars have reconceptualized territory through landscape, challenging static, aestheticized views. The concept of "landscape as territory" (Olóriz Sanjuán, 2019) illustrates approaches that attribute territorial qualities to the natural landscape, framing it as a living space shaped by broader spatial and socio-environmental processes (Schmid, 2016; Meili, 2016). In a similar vein, the concept of bioregionalism calls for rethinking territory through ecological relations, emphasizing ecosystem-oriented approaches that transcend

administrative divisions in favor of ecological boundaries, such as watersheds or mountain ranges (Magnaghi, 2015).

This conceptual reframing of territory has reconfigured how urban and regional planning is practiced. Integrated territorial planning approaches are re-emerging as alternatives to the rigid geographical frameworks that have traditionally structured spatial thinking—particularly those rooted in binary concepts such as "urban" versus "rural" and "local" versus "global" (Davoudi, 2018). Such approaches are increasingly endorsed by scholars and development actors alike as tools to coordinate economic, environmental, cultural, and social agendas, link spatial scales, and facilitate cross-regional collaboration based on shared concerns (Albrechts, 2018).

Many international development organizations promote territorial planning today as a decision-making process guided by a shared vision and a set of strategic goals, objectives, and integrated multi-scalar interventions, elaborated through participatory mechanisms that aim to improve governance structures across all levels (UNECE, 2008; UN-Habitat, 2015). For instance, the European Commission positions its Territorial Approach to Local Development (TALD) as an instrument supporting sustainable development and participatory governance (European Commission, 2016). The EU's Territorial Agenda 2030 further encourages cooperation across sectors and regions by supporting experimental pilot actions that involve multiple countries and partners (European Union, 2020).

The key drivers of territorial development strategies are far from universal. Scholars have identified two dominant approaches: an inclusive, communicative model motivated by social and spatial justice concerns, versus a neoliberal model that facilitates market expansion.

In practice, however, territorial planning faces serious obstacles stemming from structural power imbalances, rigid governance frameworks, and market-driven priorities. The key drivers of territorial development strategies are far from universal. Scholars have identified two dominant approaches: an inclusive, communicative model motivated by social and spatial justice concerns, versus a neoliberal model that facilitates market expansion (Davoudi, 2018). Despite its rhetoric on sustainability and inclusion, this latter model often leads to de-territorialization (the erosion of people's connection to land) and commodification (the transformation of land and resources into tradable assets) (Magnaghi, 2015; d'Emilio & Guillot, 2020). Both dynamics intensify spatial fragmentation, deepen inequality, and accelerate environmental degradation, ultimately leading to the emergence of informal settlements and "gray spaces"—areas of ambiguous legality that are neither fully integrated nor entirely excluded from formal planning systems (Yiftachel, 2009).

Environmentalism and the Commons

Environmentalism refers to actions aimed at protecting the environment from human-induced harm. It is neither a monolithic movement nor a neutral concept. Actors involved in environmental action have diverse ideologies and motivations, leading to differing opinions on what should be prioritized for protection and how (Martinez-Alier, 2014). Generally, debates in environmental thought often distinguish between anthropocentric approaches, which value nature primarily for its utility to human

societies, and ecocentric approaches, which recognize the intrinsic worth of ecosystems irrespective of human use.

For instance, affluent environmentalists and some conservation activists may advocate protecting nature for its inherent value, independent of any direct benefits to people. By contrast, marginalized groups—such as small-scale farmers, pastoralists, and fishers—strive to defend environments essential to their livelihood, health, culture, or sovereignty, leading some scholars to describe their grassroots struggles as the "environmentalism of the poor" (Martinez-Alier, 2014).

Indeed, ecosystem-dependent communities mobilize not to safeguard nature per se, but to resist resource capture, secure communal rights, and prevent development projects that threaten to displace them and erode their identity (Guha & Martinez-Alier, 1997). Examples include disputes between peasants and industrialists over forest products, tensions between rural and urban populations regarding access to water and energy, and herders' resistance to the privatization and repurposing of grazing lands. These bottom-up perspectives challenge dominant environmental protection narratives by raising critical context-specific questions (Davies, 2020), such as: What constitutes the environment? Who decides what to conserve? Who benefits from conservation? Who bears the cost of environmental policies, and who defines harm?

Reactions to these questions often reveal a palpable tension between protecting nature as a public good and managing it as a private commodity serving economic interests. These tensions are especially visible in discussions around the commons, such as forests, pastures, and water. Elinor Ostrom's work (1990) has been a significant inspiration for those concerned with sustainable resource management. Rejecting both privatization and state control, she emphasized the importance of collective self-governance, arguing that communities can sustainably manage shared resources through cooperation, local decision-making, and mutual accountability (Salvi & Krimm, 2020). This position directly challenges the long-standing "tragedy of the commons" narrative (Hardin, 1968), which assumes that communal natural resources are inherently prone to overuse and degradation unless privatized or placed under the regulatory authority of the state.

While international treaties and agreements provide global management frameworks, attempts to implement the required measures highlight a central contradiction in environmental thought between green growth and degrowth models.

Today, the climate emergency is expanding the debate on responsibility for protecting the global commons—resource domains such as the atmosphere, high seas, outer space, and Antarctica—that lie beyond the sovereignty of any single state (Schrijver, 2016).[1] Several authoritative bodies and scholars contend that collective action is urgently needed to reduce greenhouse gas (GHG) emissions driving global warming, which is degrading the health and stability of these commons.[2] While international treaties and agreements provide global management frameworks, attempts to

1. Global commons are managed through international treaties and agreements (such as the Paris Agreement and the UN Convention on the Law of the Sea) due to their transboundary nature and shared benefits.

2. For example, a key authoritative body calling for urgent action to reduce GHG emissions is the Intergovernmental Panel on Climate Change (IPCC).

implement the required measures highlight a central contradiction in environmental thought between green growth and degrowth models.

For instance, carbon pricing and REDD+ are increasingly mainstream worldwide as scalable strategies to reduce emissions from deforestation and forest degradation.[3] However, critics raise valid concerns about their ability to produce a socially and environmentally just transition (Brockhaus et al., 2025). They argue that the implementation of such programs often reproduces neoliberal logics, sidelining concerns about environmental justice, local sovereignty, and ecological integrity (Boehnert, 2015; Kosoy & Corbera, 2010), ultimately affecting local communities' access to resources they depend on. Alternatively, degrowth economic theories propose a planned reduction of production and consumption in wealthy nations, which are responsible for most carbon emissions, to address the world's social-ecological crises. While such approaches are gaining traction among environmental movements, it remains challenging to translate them into actionable policy, largely due to political resistance from entrenched interest groups.

Natural Capital and the Financialization of Nature

While distinct from degrowth, the early 20th-century concept of "natural capital" similarly cautioned against unlimited economic growth. Alvin S. Johnson, who is often credited with coining the term, distinguished between "artificial capital" (human-made assets like machinery and buildings) and "natural capital" (resources provided by nature, such as soil, water, and living creatures), emphasizing that the latter is an integral component of economic systems (Missemer, 2018). Although E.F. Schumacher (1973) used the term in his influential book Small is Beautiful, in which he advocated for human-centered and environmentally conscious economic approaches, the concept of natural capital only gained widespread popularity in the 1990s. Since then, its definition has become increasingly complex, sparking debates across different traditions of environmental economics and expanding into ecological economics and political economy (Åkerman, 2005).

> **Critics particularly disagree with treating nature as a financial asset, as this standpoint inherently promotes the privatization and commodification of natural resources.**

In contemporary discourses, the concept of natural capital evokes two controversial views of nature: as a financial asset and as an ecosystem. Both perspectives have been criticized for aligning with neoliberal governance, which has altered our relationship with the natural world by reducing the environment to an economic resource (Boehnert, 2015) and nature to a "productive machinery" (Åkerman, 2005, p. 440). Critics particularly disagree with treating nature as a financial asset, as this standpoint inherently promotes the privatization and commodification of natural resources. Some critics further argue that, within a market-oriented economic system, framing ecosystems in terms of services—provisioning, regulating, cultural, and supporting—risks oversimplifying complex ecological relationships and obscuring intrinsic, relational, and communal values of nature (Boehnert, 2015).

3. REDD+ is framework under the Paris Agreement that supports global effort to protect forests in the fight against climate change. REDD stands for "Reducing Emissions from Deforestation and Degradation," while the "+" refers to additional activities that enhance forest carbon stocks, such as conservation, sustainable forest management, and forest restoration. See United Nations Climate Change. What is REDD+? https://unfccc.int/topics/land-use/workstreams/redd/what-is-redd

Extending on these conceptual critiques, some scholars contend that the concept of natural capital has helped institutionalize market-based solutions for protecting the Earth's systems. For example, conservation finance programs such as Payments for Ecosystem Services (PES), designed to incentivize conservation, have been criticized for commodifying nature, favoring the interests of wealthier people, and excluding holders of informal and customary property rights from decision-making processes. Carbon trading and REDD+ programs, often promoted alongside PES, have raised similar concerns about equity, effectiveness, and commodification of forests.

The incorporation of natural capital into Gross Domestic Product (GDP) calculations as a monetary asset driven by green accounting systems (and promoted by institutions such as the World Bank) is another controversial mechanism. While intended to promote sustainability, critics argue that these systems treat people as consumers and nature as a revenue stream (Åkerman, 2005), exacerbating social inequalities and often leading to the displacement of vulnerable groups who depend on natural resources for their livelihoods. Environmental, social, and governance (ESG) metrics, introduced in some countries to guide investments while integrating nature into monetary policy and taxation, have also faced criticism. By framing natural resources and ecosystems as assets with economic value, such mechanisms turn nature into a commodity while masking deeper social and ecological injustices embedded in the process.

Divergence between different schools of thought became especially visible during the launch of the United Nations Environment Programme's (UNEP) Green Economy project at Rio+20 in 2012. Emerging from the convergence of the two concepts of "natural capital" and "ecosystem services," the project drew substantial criticism. The Natural Capital Declaration, signed by major financial actors, was seen by many civil society organizations as the culmination of decades of greenwashing and as evidence of a broader failure of the Green Economy initiative (Boehnert, 2015). These debates continue to influence environmental policy today.

Situating Lebanon

Global debates around territorial planning, environmentalism, and natural capital reflect the inherent contradictions between the different dimensions of sustainable development. These tensions are especially pronounced in the Global South, where many countries struggle with the legacies of colonial regimes, extractive economies, weak public institutions, and high dependence on donor funding.

In Lebanon, the common challenges facing developing economies intersect with domestic challenges stemming from entrenched sectarianism, clientelism, uneven development, and a long history of conflict and foreign intervention. The country's natural wealth faces growing threats from pollution, overexploitation, unregulated construction, and speculative real estate investments. Land governance is fragmented and highly politicized. Competing territorial visions and deep-rooted power asymmetries fuel ongoing struggles over land and resources.

The following section offers a critical overview of Lebanon's planning system and institutional landscape, setting the stage for analyzing how these dynamics affect environmental and territorial outcomes.

2. Territorial Planning in Lebanon

Territorial planning in Lebanon is rudimentary and largely biased toward the interests of powerful groups, with serious negative repercussions for the economy, human well-being, the built heritage, and the natural landscape. To better understand how contemporary socio-economic and environmental challenges intersect with land governance and planning, this section draws on relevant literature as well as discussions and semi-structured interviews with concerned actors.[4] It first provides a background on Lebanon's history of instability and conflict, followed by a synopsis of Ottoman and French urban development legacies. It then presents a critical overview of current urban and territorial planning dynamics, ad hoc practices, project-based approaches, and their environmental and social consequences.

Background

Lebanon emerged as a distinct polity within the Ottoman Empire in the late 16th century, initially as the autonomous region of the Emirate of Mount Lebanon, which became the Mutasarrifiyya of Mount Lebanon in 1861. The Ottoman rule (1516-1918) ended with the victory of the Allied Powers in World War I. Modern Lebanon was established on September 1, 1920, under the French Mandate (1920-1943).

French rule over Lebanon, a system akin to colonialism, exacerbated the class- and clan-based conflicts that were present under Ottoman rule and reinforced ideological forms of confessionalism or sectarianism (*ta'ifiyya*), which continue to shape Lebanon's political system to this day (Firro, 2002; Kawtharani, 2013). Beirut, chosen as the capital city, thrived at the expense of other Lebanese coastal cities. The shift to an economy based on banking and trade further strengthened its supremacy while sidelining agriculture and industry, alienating large segments of society.

Post-independence, Lebanon's laissez-faire system sustained social and regional inequalities. Despite the major reforms introduced during President Fouad Chehab's era (1958-1964), societal stratification along class and sectarian lines and the economic gap between Beirut and other Lebanese regions continued to increase. These disparities, exacerbated by the 1948 Nakba and the 1967 war, which displaced large numbers of Palestinian refugees to Lebanon, contributed to the outbreak of Lebanon's 15-year civil war (1975-1990).

During the war, political and military leaders leveraged their power to extract economic benefits through patron-client relations. They achieved their primary goal: "self-rule of each community on its own territory" (Traboulsi, 2007, p. 233). Beirut lost its regional role. Meanwhile, war displacement fueled the rapid expansion of informal settlements in its suburbs. Israel's repetitive incursions and occupation of parts of southern Lebanon in 1982 produced additional waves of displacement, further altering Lebanon's political and military landscape.

4. For this section, most interviews were carried out between 2021-2022 within the framework of the *Unions of Municipalities as Enablers of Local Economic Development* project (UN-Habitat/UNPD).

The civil war officially ended in 1990 following the Taif Agreement,[5] which introduced key constitutional reforms, including the principle of "balanced development" across regions. However, post-war reconstruction fell short of this goal. Instead, it privileged large-scale projects in Greater Beirut and reinforced a speculative, rentier economy centered on real estate and foreign currencies. On the one hand, these policy choices led to significant fiscal imbalances and a sharp increase in public debt (Eken & Helbling, 1999). On the other hand, they deepened social and sectarian divisions and solidified the territorial enclaves established during the civil war (Harb, 2007). Although the 1998 municipal elections—the first since 1963—restored a measure of local governance, major political parties dominated the newly elected councils. This concertation of power ultimately bolstered sectarian and political divisions, influencing reconstruction efforts and infrastructure investments in their respective strongholds.

Regional conflicts intensified Lebanon's socio-economic pressures, particularly after the beginning of the Syrian war in 2011. According to the UNHCR, Lebanon hosts the highest number of refugees per capita—estimated at around 1.5 million people,[6] or roughly 22 percent of the population—placing significant strain on infrastructure and already deteriorating public services. These pressures were compounded by the financial and economic crisis that began unfolding in October 2019, the COVID-19 pandemic, and the 2020 Beirut port explosion—the largest non-nuclear blast in history.

Amid this prolonged state of instability and uncertainty, territorial planning appears deadlocked, unable to respond to mounting challenges.

Israel's ongoing assaults on Lebanese territory since 2023 and continued occupation of several border towns have further destabilized the country, deepened political divisions, and worsened humanitarian conditions. The public debt crisis and local currency devaluation have exacerbated poverty levels and widened income inequalities, leaving many families in deplorable conditions. Neither the national government nor local municipalities have the capacity to respond effectively to these escalating challenges. Deep-rooted political issues, including corruption, governance failures, and political instability are hindering access to international aid upon which Lebanon has long relied.

Amid this prolonged state of instability and uncertainty, territorial planning appears deadlocked, unable to respond to mounting challenges. Funding constraints, fragile security conditions, political tension, pressures from forced displacement, and institutional inertia have all contributed to the persistent failure to implement vital infrastructure projects, reinforcing a general sense of stagnation in development. Of course, the shortcomings of Lebanon's territorial planning system are neither recent nor merely technical. They are rooted in legacies of past land governance and planning practices, making historical inquiry necessary to understand present dysfunction.

Territorial Planning and Land Governance Legacies

The second half of the 19th century was a pivotal point in Lebanon's planning history, with enduring repercussions on later developments. In line with its Tanzimat-era reforms (1839-1876), the weakening Ottoman Empire launched major urban renewal

5. Negotiated in the Saudi Arabian city of Taif and signed in October 1989, the Taif agreement, also known as the National Reconciliation Accord, provided the basis for ending the Lebanese Civil War (1975-1990).

6. "UNHCR Lebanon at a Glance." https://www.unhcr.org/lb/about-us/unhcr-lebanon-glance

and infrastructure development programs in key cities, including Beirut (Samourkasidou & Kalergis, 2021). Inspired by European urban planning models, mainly French, these programs were intended to make cities more functional and attractive for investment. Justified by principles of hygiene and aesthetics, urban efforts were complemented by laws regulating private and public property, as well as by the establishment of municipal councils and a public administration system to manage land and property taxes (Ghorayeb, 2022; Lamy, 2022).

During the mandate period, the French continued Ottoman land reforms and modernization efforts, aligning them with European models that served their own economic and political interests (Daher, 1974; Verdeil, 2010). They also introduced new laws to delineate public property and protect natural sites, granting the state and municipalities special authority to safeguard them (Lamy, 2022)—ultimately preparing the ground for their commercial exploitation. The land use planning regulations the French initiated in the main cities (*plan d'aménagement*) aimed to establish a modern and comprehensive development framework, replacing the late Ottoman period of fragmented modernization attempts and piecemeal road widening strategies (Fawaz, 2017).

Ottoman and French Mandate land reforms and planning legacies continue to influence territorial development. The property laws in effect today were largely established during the French Mandate period, based on the Ottoman Land Law of 1858. The French reinterpreted this law, stripping it of its social dimensions and transforming it from a land law to a real property law that promotes private ownership as the only "modern» form of land tenure (Mundy, 2022; Samaha, 2024). Paradoxically, while the initial law aimed to register land in farmers' names, their fears of higher taxes and forced military service, combined with a flawed land registration process, led to land concentration in the hands of powerful individuals and groups (Ghorayeb, 2022; Kawtharani, 2013; Daher, 1974).

The persistence of historical land governance systems has reinforced regional disparities and inequitable access to land and resources. Meanwhile, the chronic weakness of Lebanon's state institutions hampers effective planning, as outdated frameworks fail to meet the demands of contemporary urbanization and infrastructure.

Thus, the resulting land tenure system in Greater Lebanon came to be defined by plurality and contradictions (Daher, 1974). In Mount Lebanon, large estates, including extensive church endowments (*waqf*), coexisted with small and fragmented peasant landholdings. In other regions,[7] significant state-owned lands, along with numerous indivisible properties controlled by feudal lords, contrasted with the relatively small and less secure peasant peri-urban holdings. Inheritance practices have further entrenched this pattern, with many large estates still collectively owned by prominent families today.

7. Until today, property categories in Lebanon differ between the historical Mutasarrifate of Mount Lebanon and the rest of the country due to historical variation in administrative rules. For a detailed overview of the legal categorization of property types of Lebanon, see Petra Samaha's series of articles published by the Legal Agenda. https://legal-agenda.com/author/petra-samaha/

The persistence of historical land governance systems has reinforced regional disparities and inequitable access to land and resources. Meanwhile, the chronic weakness of Lebanon's state institutions hampers effective planning, as outdated frameworks fail to meet the demands of contemporary urbanization and infrastructure. The French land use planning system, commonly referred to as master planning, is still a key tool for guiding urban growth and regulating the built environment (Fawaz, 2017; Verdeil, 2012). However, the efficacy of this framework is severely undermined by gaps in land administration and tenure security, particularly the incomplete land registry introduced during the French Mandate.

Approximately 35% of Lebanese territory remains unsurveyed and undocumented by the Directorate of Land Registry and Cadastre (DLRC) at the Ministry of Finance (Maarawi, 2020). Some individuals still hold title deeds (known as *tapu*) from the Ottoman era certifying their usufruct rights over specific plots. However, these rights are not recorded in Lebanon's land registry system. Conflicting interests among various actors involved in the land survey and validation process have fueled land conflicts, with some areas still marked as disputed zones (Bakhos & Verdeil, 2019). In tribal regions of Hermel and Akkar, the absence of formal title deeds and the persistence of communal ownership present major challenges.

Growing demand for individualized land tenure and the gradual erosion of the communal land management system are aggravating the problem. Encroachment and unauthorized construction are widespread on state lands, many of which are still unidentified due to limited data, resources, and monitoring (Diab, 2024). Together, these issues undermine effective territorial planning and land management, especially in the absence of political will to enact necessary reforms (Verdeil, 2019).

Current Urban and Territorial Planning System

Despite its crucial role in guiding local economic development, territorial planning in Lebanon remains top-down, highly centralized, and fragmented, with no meaningful public participation in decision-making (UN-Habitat, 2018). Multiple ministries and public administrations are involved in the planning process with overlapping mandates and no unified coordination mechanism. Lebanon's Ministry of Planning was abolished in 1977 and replaced by the Council for Development and Reconstruction (CDR). Established under the assumption that Lebanon's civil war (1975-1990) was nearing its end, CDR was structured as an autonomous body directly accountable to the Council of Ministers. This setup allowed it to bypass routine administrative delays and expedite its tasks: planning and overseeing reconstruction efforts, securing project funding, and rehabilitating public institutions.[8]

Today, CDR is the key institution for coordinating and implementing development projects in Lebanon with foreign funding. The Directorate General for Urban Planning (DGUP), established in 1959 under the authority of the Ministry of Public Works and Transport (MoPWT), holds primary responsibility for defining land use and zoning regulations and developing master plans for Lebanese cities and towns, either on the request of concerned municipalities or its own initiative. Founded in 1963, the Higher Council for Urban Planning (HCUP) is the competent advisory body for urban and rural planning matters. Formally, it is tasked with issuing opinions on master plans, zoning classifications, and draft decrees concerning the establishment of real estate

8. Council for Development and Reconstruction (CDR). The creation of CDR and the reasons for its establishment. https://www.cdr.gov.lb/en-US/About-CDR.aspx

companies, land expropriation, and land consolidation and subdivision.[9] In practice, however, HCUP plays a decisive role in the approval process.

The Lebanese urban planning law (Decree No. 69 of 1983) is the primary legal framework governing land use and development. It defines three planning levels: The territorial land use plan, the master plan, and the detailed master plan. The National Physical Master Plan of the Lebanese Territory (NPMPLT), published in 2005 and endorsed in 2009 by the Council of Ministers (Decree No. 2366), corresponds to the highest planning level. It sets a comprehensive framework for sustainable and balanced territorial development at the national level. Master plans provide broad land use guidelines and define allowable built-up areas, while detailed plans establish zoning regulations and address physical and aesthetic elements at the plot level. Both master plans and detailed master plans are typically developed at a municipal or sub-municipal level, although they may also cover groups of municipalities or specific zones.

The National Physical Master Plan of the Lebanese Territory (NPMPLT), published in 2005 and endorsed in 2009 by the Council of Ministers (Decree No. 2366), corresponds to the highest planning level.

The urban planning law stipulates that local master plans, when they exist, should adhere to "the framework of the national land use master plan." In practice, however, most local plans have overlooked the NPMPLT recommendations. While many local plans predate it, the timing and institutional context of this national plan also hindered its effective implementation. Notably, the NPMPLT was elaborated during Lebanon's post-war reconstruction period under the CDR rather than the DGUP, which traditionally oversees spatial planning in Lebanon.

Although the CDR representative at the HCUP has consistently advocated for the plan's recommendations, political considerations (exacerbated by weak institutional coordination) ultimately dictated decisions.[10] This is evident in the contradiction between the NPMPLT and the National Master Plan for Quarries and Stone Crushing Sites, prepared by the DGUP, regarding the designation of areas suitable for quarrying activities, despite the fact that both plans were produced during the same period (Public Works Studio, 2019b). Similarly, although the Ministry of Industry was expected to align designated industrial zones with the NPMPLT's recommendations, the ultimate choices were driven by political priorities rather than environmental, social, or long-term planning criteria.

Crucially, the NPMPLT has never been updated since its issuance, more than two decades ago. While its core principles remain relevant, many of its recommendations require revision in view of population growth, chaotic urban expansion, unchecked land use transformations, and emerging challenges such as climate change and environmental degradation. At the same time, more than 70% of Lebanese territory remains without master plans, and where such plans (or partial plans) exist, many are

9. The HCUP is composed of 13 members, chaired by DGUP director. Its members include directors (or their delegates) from various ministries and public administrations (Justice, Interior, Public Works and Transport, Environment, Housing and Cooperatives, and the CDR), along with representatives of the Orders of Engineers (Beirut and North) and appointed specialists in sociology, architecture, and urban/environment planning.

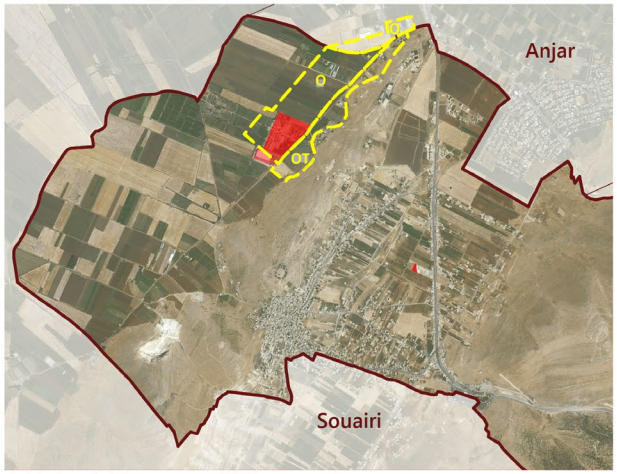
10. Personal communication with Sami Feghali (Former Head of Land Use Planning Department at CDR), July 2025.

outdated but still enforced.[11] Most of these plans fail to address broader spatial and socio-economic issues such as local economic development, territorial fragmentation, widening social disparities, and environmental sustainability. Instead, they narrowly focus on defining allowable built-up areas, acting primarily as zoning instruments that pay little regard for actual land use patterns or evolving local needs (SOER, 2010).

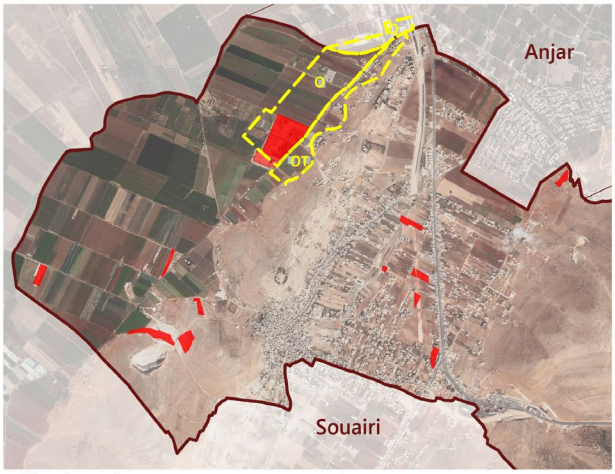
Arbitrary Land Use Practices and Politicized Planning Decisions

Lebanon's reductionist approach to planning has inflated land values based on building potential rather than a long-term territorial development vision. As a result, many landowners have successfully lobbied to reclassify their plots, typically from agricultural to residential, industrial, or commercial use, given that agricultural land commands the lowest market prices (Figure 1). Such practices further distort the planning process and

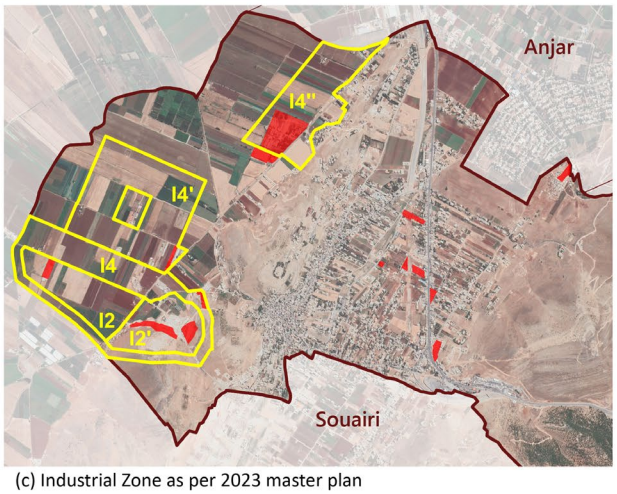
Figure 1: Expansion of industrial activities in Majdel Anjar on agricultural areas outside the 1997 designated industrial zone (IZ), with the 2023 Master Plan further expanding industrial zoning on fertile land—a recurrent pattern in Zahle district.



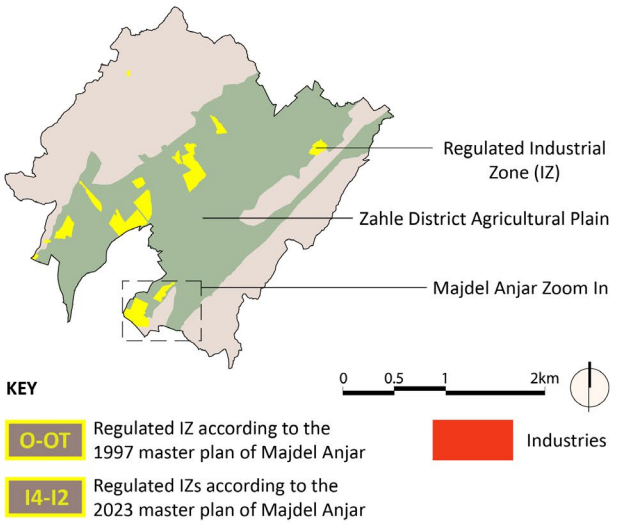
(a) Industrial Zone as per 1997 master plan
Industries location based on 2004 satellite imagery



(b) Industrial Zone as per 1997 master plan
Industries location based on 2014 satellite imagery



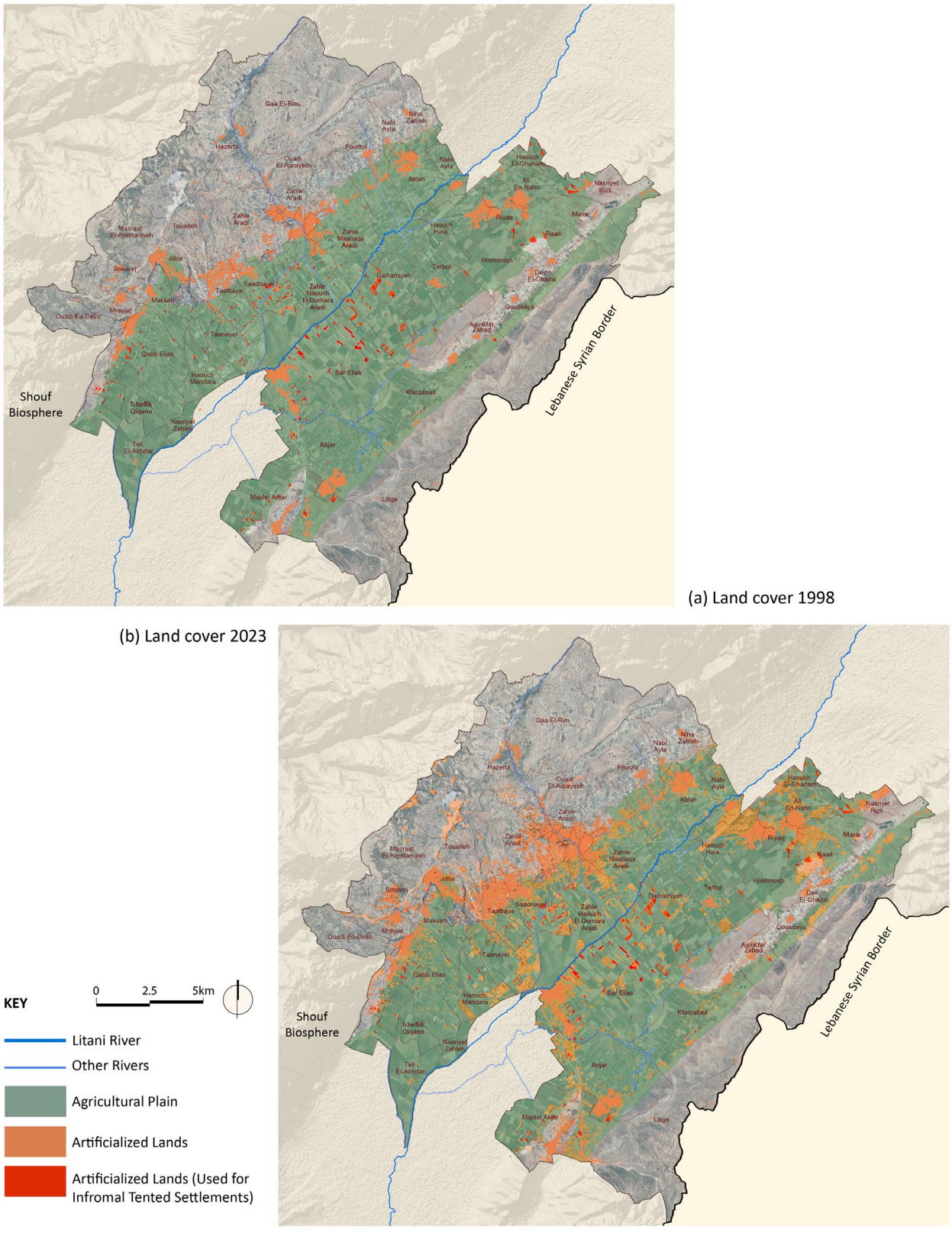
(c) Industrial Zone as per 2023 master plan
Industries location based on 2023 satellite imagery



11. Some of these plans were issued by a decree and some approved by an HCUP decision. Based on personal communication with Mona Bitar (Engineer in Charge in the Urban Studies Division at DGUP), May 2025.

undermine the construction law, while also hampering environmental stewardship and entrenching a governance model driven by personal relationships, nepotism, and corruption (Public Works Studio, 2018).

Figure 2: Comparative maps (1998 and 2023) illustrating rapid urbanization in Zahle district as an example of broader national trends.



Lebanon's broader regulatory vacuum, combined with population pressures and stark income inequalities, has accelerated informal urbanization and encroachment on agricultural lands, often with political backing from dominant parties (Figure 2). Under the pretext of addressing emerging housing needs, multiple decisions issued by the Ministry of Interior and Municipalities (MoIM)—typically ahead of municipal elections—have allowed municipalities to grant construction permits for small "model" residential buildings (not exceeding 150 m2) without the oversight of the Order of Engineers and Architects. Meanwhile, HCUP has issued hundreds of exceptional decisions permitting construction in unplanned areas. Although intended to address regulatory gaps, many of these decisions bypass the core principles and recommendations of the NPMPLT, further eroding the integrity of the planning system. Laws allowing the regularization of illegal construction in exchange for money have further encouraged non-compliance. By prioritizing short-term revenue from penalties over rigorous planning and damage assessment, these measures have perpetuated chaotic development and undermined the long-term integrity of the built environment (Barjas, 2019; Fawaz, 2019).

This ad hoc and politically manipulated approach to construction and land use regulation has blurred institutional lines of authority over planning, amplified spatial and social inequalities, and accelerated environmental degradation. Lebanon's second State of the Environment Report (SOER, 2010) noted that weak urban planning and building regulations have failed to establish a coherent urban development direction, leading to the proliferation of linear or ribbon construction in rural regions such as the Bekaa Valley and Akkar, inappropriate development on steep mountainous terrain, and obstruction of natural landscapes. A decade later, the third State of the Environment Report (SOER, 2020) underscored how haphazard urbanization—fueled by post-Syrian crisis population growth, infrastructure deficits, and arbitrary planning—has intensified resource depletion and pollution. In the Bekaa Valley, for example, Syrian tented settlements have expanded onto farmland, often without utility connections, accelerating both environmental and socio-economic strain.

Project-Based and Strategic Approaches

Lebanon's weak territorial planning system and institutional fragmentation enabled the emergence of private sector- and donor-driven modes of spatial development after the civil war. The post-war government privileged large-scale, high-visibility infrastructure projects (highways, bridges, and underpasses) as well as major urban development initiatives involving public-private partnerships, such as the reconstruction of Beirut's Central District (Solidere) and the proposed Elyssar and Linord projects. At the same time, Lebanon's dependence on international support to finance major urban infrastructure investments further entrenched project-based approaches. Without a comprehensive territorial planning framework, however, these projects remained fragmented. Although justified in terms of economic growth and development, many had serious social and environmental repercussions, fracturing territories and landscapes and transforming the urban and social fabric.

Elements of strategic planning began emerging in the late 1990s and expanded in the 2000s, as municipalities re-entered the public policy arena. The discourse on decentralization and EU-funded programs—such as the OMSAR/Louis Berger "local development plans"—promoted cross-sectoral planning at the subnational level, prioritizing strategic interventions and promoting municipalities as development actors (Najem, 2016). The NPMPLT, endorsed in 2009, provided the first comprehensive national-level territorial planning framework, setting strategic interventions across

sectors. However, persistent political and institutional challenges have hindered its implementation.

Interest in strategic area-based development approaches grew in the last two decades. Although not formally part of Lebanon's spatial planning framework, these approaches became more prominent with the influx of Syrian refugees. Several international organizations working on the ground conducted rapid participatory assessments, developed cross-sectoral strategies, and supported the implementation of small-scale projects to improve living conditions in vulnerable areas. While often highly visible, these pilot interventions tended to remain micro-urban rather than territorial in scope, and their outputs did not always correspond to the real needs of targeted communities.

Crucially, the objective of achieving "balanced development" has allowed political actors to influence decisions on which projects move forward, and how and where resources are allocated.

By contrast, territorial initiatives supported by international financial institutions (IFIs) are multi-scalar and increasingly framed under the banner of integrated territorial development. Working primarily with CDR, institutions such as the AFD, the European Investment Bank (EIB), and the World Bank, alongside the European Commission (EC), have promoted project-based forms of territorial planning that support cross-sectoral integration through loans and grants to the Lebanese government. These initiatives are presented as tools for economic development, job creation, and social cohesion. They typically hold specific thematic priorities that align with donors' agendas and are distributed in a way that accounts for Lebanon's complex sectarian dynamics.

Crucially, the objective of achieving "balanced development" has allowed political actors to influence decisions on which projects move forward, and how and where resources are allocated. Projects funded by IFIs and other development partners are nominally selected based on capital and operating expenses analysis (CAPEX/OPEX), revenue generation, and project management capacity, yet political and sectarian considerations remain deciding factors. For example, the Cultural Heritage and Urban Development (CHUD) project, initiated by the World Bank, was implemented in five Lebanese cities that were strategically chosen to ensure an equitable distribution of funds among sectarian communities.

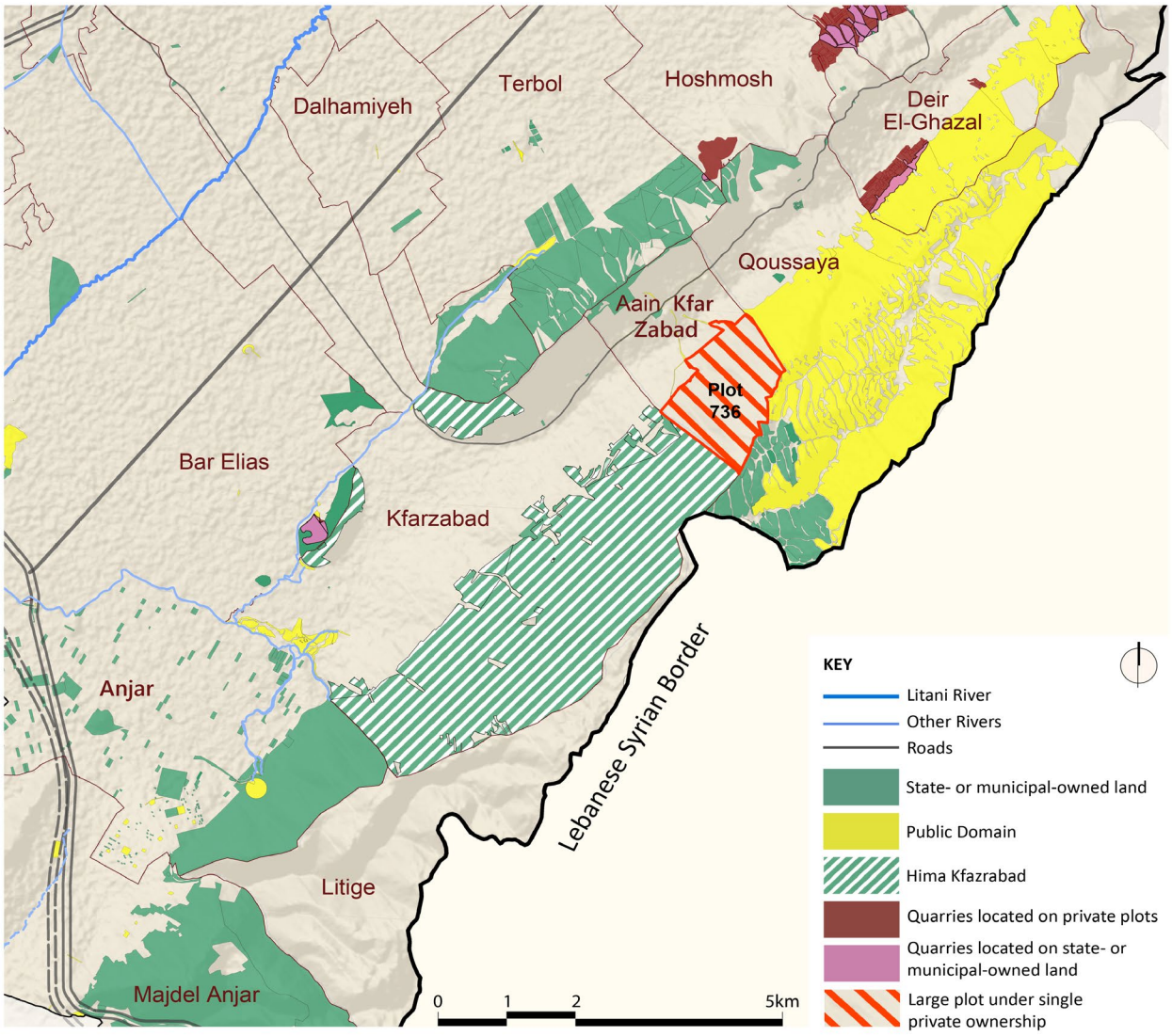
International organizations continue to shape Lebanon's planning processes, introducing methodologies, governance frameworks, and accountability mechanisms. Yet their interventions often result in overlapping and incoherent agendas that reflect donors' priorities more than a long-term territorial planning and development vision that corresponds to local needs. At the same time, numerous political, administrative, social, economic, financial, and land-related obstacles continue to impede the realization of donor-supported development projects. Mobilizing and allocating state-owned land—necessary for upgrading infrastructure and facilities such as landfills, social housing, and public spaces—remains an intractable challenge, given that much of this land has been privatized or encroached upon and absorbed into unplanned urban expansion.

Land Value Grabbing, Landscape Fragmentation, and the Vanishing Commons

Decades of fragmented and sporadic territorial planning in Lebanon have resulted in severe environmental costs: pollution, resource depletion, loss of land cover, and ecosystem fragmentation. Speculative conversions and arbitrary and politically driven land-use decisions more generally, have produced incompatible and hazardous land uses. These dynamics facilitate land grabbing by transferring ecological and social costs onto local communities, depressing the value of their lands while allowing powerful actors to benefit from the resulting devaluation.

Waste dumping and polluting industries in residential areas such as the Naameh landfill and the cement factories of Chekka, which have been linked to high rates of cancer, starkly illustrate how inadequate land use practices endanger public health, degrade ecosystems, and trigger forced relocation and land devaluation. These harmful

Figure 3: Quarrying activities in the Federation of East Zahle Municipalities encroaching on public domain and state- or municipal-owned lands, with plot 736 (owned by the Fatoush family, the largest quarry operators in the Zahle district, and roughly constituting half of the area of Ain Kfar Zabad) posing a risk of further expansion and disruption of landscape continuity.



practices are exacerbated by influential actors exploiting legal loopholes or operating with impunity, sometimes through questionable decrees enabling construction on the public domain and *mushaa*' lands (communal lands).[12]

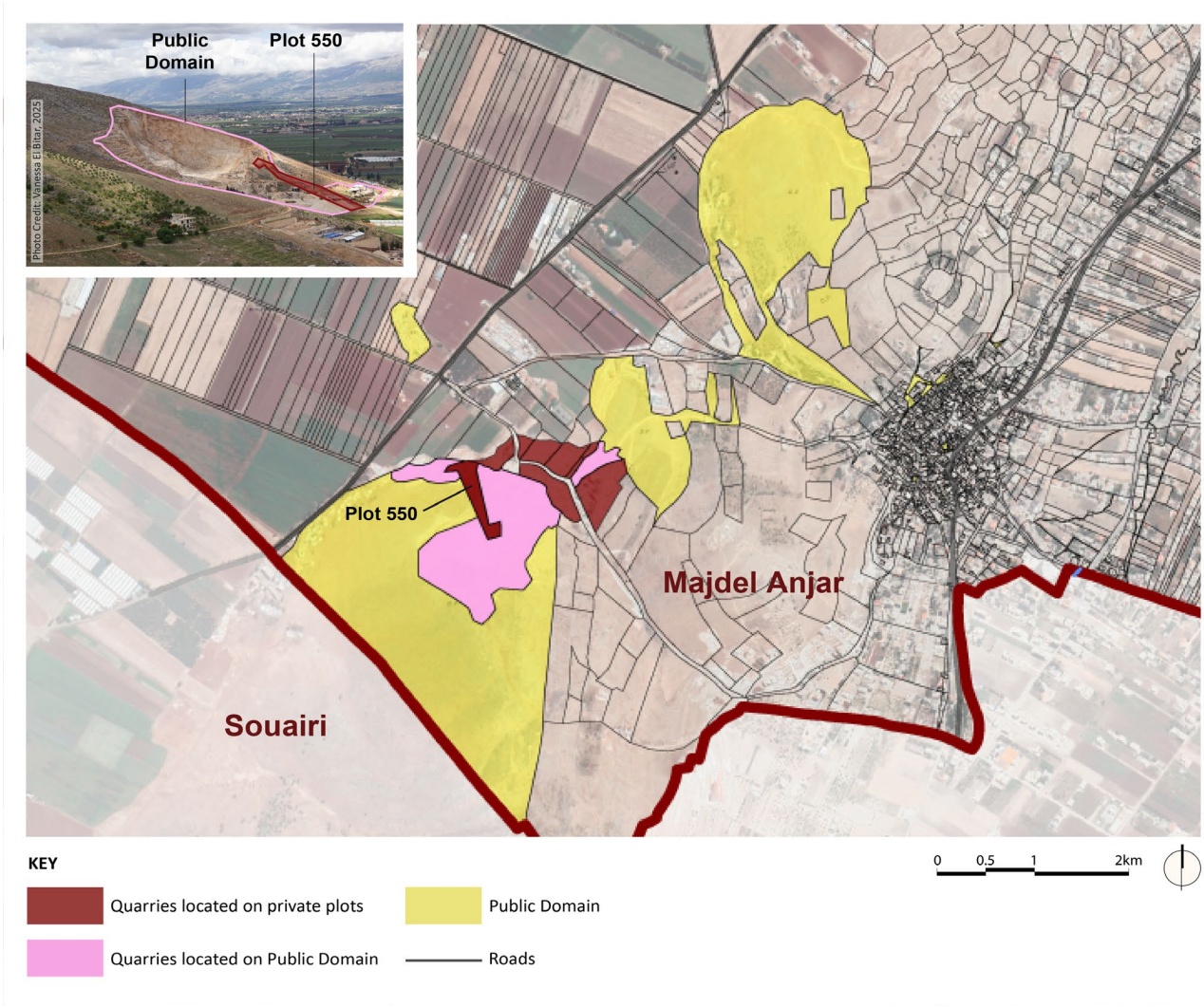
Quarrying provides a particularly striking example of environmental and regulatory violations. Activists report that legally licensed quarries and crushers, especially those run by large operators, routinely violate land-use regulations and encroach on public and communal lands (Hamza, 2019) (Figure 3). Even protected natural sites are not immune, as exemplified by the quarries of Jabal Ain Dara, which lies within the limits of the Shouf Biosphere Reserve. In Koura, cement companies have expanded their quarrying activities onto land zoned for residential and agricultural use, after pressuring the local population to sell their land (Public Works Studio, 2019a). Similarly, in Baasir (Shouf District), quarries run by politically connected contractor Jihad Al-Arab are located in an area not designated for such uses. They encroached on communal lands, destroying more than 4,500 square meters.[13] In Majdel Anjar (Zahle District), residents report that a former mayor expanded a quarry on his private site into the public domain, without oversight or accountability (Figure 4).

Crucially, public and communal lands —including productive and ecologically significant sites recognized by the NPMPLT—are increasingly threatened by unchecked urbanization, speculative development, and illegal encroachments. Understanding how these challenges are managed calls for a closer look at the legal and institutional frameworks that protect Lebanon's significant landscapes and natural resources, alongside the related environmental legislation and practical interventions in place.

12. In Lebanon, communal lands, or the commons (*mushaa*'), are lands held in ownership by the state, relevant municipalities, or collectively the citizens of the town in which they are located. Conversely, the public domain refers to inalienable state assets such as maritime or riverbeds. For a detailed overview of the legal categorization of property types of Lebanon, see Petra Samaha, series of articles published by The Legal Agenda. https://legal-agenda.com/author/petra-samaha/

13. Video by the Legal Agenda, posted on August 19, 2025, on Facebook, documenting quarrying violations in Baasir (Shouf) with commentary by MPs Halima Kaakour and Najat Saliba and local citizens. https://www.facebook.com/LegalAgenda/videos/2892669021121835/

Figure 4: Quarrying activities in Majdel Anjar illustrating the encroachment by owner of Plot 550 (a former mayor) onto the adjacent public domain land.



3. Frameworks for Protecting Lebanon's Natural Wealth

Environmentalism in Lebanon—that is, efforts to protect and conserve the environment—has been influenced by both national circumstances and global concerns (Makdisi, 2012). This section focuses on the legal and regulatory frameworks developed to conserve the country's significant landscapes and natural sites since 1920, the year Greater Lebanon was established. Drawing on a rapid review of relevant laws and decrees published in the Official Gazette and on the Ministry of Environment (MoE) website, as well as pertinent articles and reports,[14] it outlines the evolution of the legal framework, identifying five distinct phases. It then summarizes the main recommendations of the NPMPLT for natural wealth protection and underlines the persistent gap between principles and practice.

Evolution of Environmental Protection and Biodiversity Conservation Legislation

Lebanon's legal frameworks for protecting natural sites and landscapes can be broadly divided into five key phases. Despite wartime disruption, these frameworks reflect a gradual expansion in scope—from early concerns with public property and natural vistas to a more comprehensive environmental governance system integrating international commitments and national concerns.

a) Phase 1: Early Legislation under the French Mandate (1920-1943)

Several laws addressing environmental issues (such as public health, sanitation, and pollution control) were passed during this period, and key institutions were tasked with managing the country's natural resources. Of particular significance is Decision No. 144/S of 1925, which defined public property and its usage. Although not explicitly an environmental law in the modern sense, this decision is sometimes cited as Lebanon's first environmental legislation as it set the legal basis for protecting public property, including seashores (sand, rock and gravel beaches), rivers, waterways, and forests. As established by this decision, public property is inalienable, meaning it cannot be sold, acquired, or privately owned over time. Notably, Decision No. 144/S also laid the groundwork for the commodification of nature. By permitting temporary, renewable occupancy rights for up to one year to private actors for personal or commercial use serving a public interest, it created opportunities to exploit public natural spaces for profit-driven projects.

The Law for the Protection of Natural Sites and Vistas, enacted on July 8, 1939, further reinforced the legal framework established by Decision No. 144/S, laying the foundation for conservation efforts. It explicitly recognized the value of Lebanon's natural landscapes and sought to preserve them by: (1) creating a comprehensive inventory of all natural sites of artistic, urban planning, or tourism significance, regardless of ownership; (2) prohibiting unauthorized alterations to designated sites unless prior

14. An article by Ali Al-Moussawi (2017) and an unpublished background report by the MORES team (2022), prepared in the context of the *Development of Detailed Management Plans for the Nature Reserves in Lebanon* (UNDP), were particularly useful.

authorization is granted by the relevant authorities; and (3) imposing penalties for violations. However, this law also viewed natural areas as national economic assets, primarily for rural development and eco-tourism, without fully addressing the risks of overexploitation.

Decree No. 434, issued on April 8, 1942, formally designated certain sites and monuments as protected under the provisions of the 1939 Law (Appendix 2). Selection criteria clearly favored these sites for their scenic and tourist appeal, though most of them remained neglected and poorly managed.

b) Phase 2: Post-Independence Developments (1943-1975)

The period between Lebanon's independence and the Civil War marks a second phase of environmental awareness. While environmental issues were largely neglected in the early post-independence years, by the late 1940s and into the 1950s-1960s, several laws were enacted related to the protection and management of Lebanon's natural wealth. These include the Forest Law (January 7, 1949) and several decrees and resolutions related to hunting, grazing, fishing, and pollution. International engagement also increased during this phase, with Lebanon participating in the 1972 Stockholm Conference—the first global effort to address environmental issues, which also inspired the country's first overtly environmental NGO, the Friends of Nature (Makdisi, 2012).[15]

Despite their importance, the legal provisions of this period were primarily resource-management oriented, focusing on regulating extraction and use rather than ensuring long-term public access and ecosystem protection. Forest and fishery regulations sought to limit overexploitation but also facilitated commercial exploitation under state licensing. Public lands—particularly forests and waterways—remained vulnerable to private appropriation through weak enforcement, political interference, and lack of integrated conservation planning. The 1960s tourism boom reinforced these vulnerabilities, as exemplified by new legal measures permitting private development on sections of the maritime public domain.

c) Phase 3: The Civil War Period (1975-1990)

The outbreak of civil war in 1975 severely disrupted environmental protection efforts. However, legislative activity did not stop. In 1983, Legislative Decree No. 43 was enacted to protect forest resources, prohibiting the cutting, exploitation, or processing of key tree species for six years, while allowing limited exceptions for licensed construction and public works. In 1985, Legislative Decree No. 34 addressed the management of public maritime property and regional water resources, reinstating key provisions. By 1988, Law No. 64 was passed to combat pollution from hazardous waste, establishing responsibilities for producers and importers, setting standards for collection and disposal, and defining penalties for violations.

Despite these measures, implementation was largely ineffective. The war caused widespread environmental degradation, a breakdown of institutions, and neglect of regulations. For instance, several decrees issued during this period facilitated the occupancy of the maritime public domain for tourism purposes, further reinforcing the exploitation of natural landscapes for private profit and eroding the original safeguards intended to serve the public interest.

15. The 1972 Stockholm conference, the theme of which was "Only One Earth," led to the creation of the United Nations Environmental Programme (UNEP) and established principles for international environmental governance and cooperation.

d) Phase 4: Post-Civil War Commitments to Sustainability (1990-2002)

A more determined phase of environmental action emerged after the Civil War. Inspired by the global momentum around sustainable development,[16] particularly following the Earth Summit in Rio de Janeiro in 1992, both the Lebanese government and environmentally conscious groups undertook initiatives to protect the country's natural wealth. At the institutional level, Lebanon initially appointed a Minister of State for Environmental Affairs (Minister Samir Mouqbel) and began prioritizing biodiversity protection in alignment with the Convention on Biological Diversity (CBD), which Lebanon signed at Rio. Lebanon's endorsement of the other two Rio Conventions—the United Nations Framework Convention on Climate Change (UNFCCC) and the United Nations Convention to Combat Desertification (UNCCD)—also helped place environmental concerns on the national agenda.

The creation of the MoE in 1993 under Law No. 216 affirmed Lebanon's commitment to environmental protection and sustainable development. This law positioned the MoE as the lead public institution for developing environmental policies and granted it the authority to establish, expand, and manage protected areas (PAs), as outlined in Article 8 of the CBD, which Lebanon approved in December 1994. Following the ratification of the UNFCCC in August 1994, the MoE was assigned broader environmental responsibilities including climate change mitigation, adaptation, and the integration of emissions-reduction policies into national development planning. Moreover, in line with Lebanon's commitments under the UNCCD (ratified in December 1995) the MoE has collaborated with the Ministry of Agriculture (MoA)—the entity overseeing Lebanon's implementation of the UNCCD—on initiatives to prevent land degradation and promote sustainable land use practices.

In 1997, Law No. 667 significantly expanded the MoE's role, giving it greater responsibility in environmental policies development, coordination with relevant agencies, and the establishment of national environmental plans and programs. However, the absence of accompanying executive decrees hindered implementation. This lack of regulatory support, combined with political interference, left the MoE with limited capacity to fully exercise its expanded mandate, leading to challenges in enforcing environmental policies (Sibai, 2014).

More broadly, post-civil war environmental legal and policy frameworks remained largely fragmented, subordinated to reconstruction priorities and neoliberal economic reforms. Relaxed regulations and economic incentives—such as Law No. 402/1995, which granted exceptional benefits to hotel developers and Law No. 360 of 2001, which created the Investment and Development Authority of Lebanon (IDAL)—further transformed the country's natural attractions into profitable business opportunities. These measures encouraged large-scale private investments at the expense of long-term ecological and social considerations.

e) Phase 5: Contemporary Frameworks and Reforms (2002-present)

In recent years, Lebanon passed several new legislations and adopted national policies that address environmental problems and socio-economic development, in alignment with its global commitments. The Environmental Protection Law (Law No. 444/2002) is considered a cornerstone of Lebanon's environmental governance. It established the legal principles for environmental protection, sustainable resource management, and pollution control. In 2012, this law was complemented by three key environmental

16. The Brundtland Report (1987), *Our Common Future*, was a pivotal document that popularized the concept of sustainable development, inspiring many nations and organizations.

regulations: The Environmental Impact Assessment (EIA) (Decree No. 8633), the Strategic Environmental Assessment (SEA) (Decree No. 8213), and the Environmental Compliance for Establishments (Decree No. 8471). This 10-year gap between the law and its implementation decrees mainly stemmed from political deadlock and weak administrative capacity (Sibai, 2014).

At the international level, Lebanon's adoption of the Paris Agreement (Law No. 115/2019), institutionalized climate action within the MoE's agenda and expanded its collaboration with the MoA on issues at the intersection of climate change, agriculture, and land conservation. More broadly, the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs), adopted by all UN member states, including Lebanon, in 2015, provide a general framework that aligns local efforts with global priorities.

In terms of nature conservation, the 2019 Protected Areas Law (Law No. 130) aligns with Lebanon's international commitments to environmental protection and sustainable development. It provides a comprehensive and unified legal framework for biodiversity conservation, addressing the limitations of previous legal frameworks that were outdated, fragmented, or limited to specific types of protected areas. Significantly, the law introduced four categories of protected areas: nature reserve, natural park, nature site and monument, and *hima* (community-managed protected zone, following local traditions). It defined sustainable use and management principles for reserves, including core, buffer, and transitional zones. The law also permitted the establishment of nature reserves on private land and reinforced the interconnected roles of government bodies, civil society, and the scientific community in conservation efforts.

Despite these regulatory advancements, implementation gaps persist. Many ecologically sensitive sites remain unprotected, and some protected areas are incompletely demarcated, which leaves them vulnerable to encroachment. Ensuring equitable enforcement, community involvement, and accountability is particularly challenging in areas where private and public interests collide.

The NPMPLT Regulatory Framework

While environmental legislation has evolved in recent years to address sustainability and conservation goals, the NPMPLT sets a general regulatory framework guiding spatial development and land use planning. This highest-level planning instrument considers the Lebanese territory as a coherent entity and aims to reinforce national unity, achieve balanced development, and rationalize the use of natural resources (DAR – IAURIF, 2005).

Following an objective scientific analysis, the NPMPLT identifies four broad land use categories: urban regions, mixed rural regions, agricultural areas of national interest, and natural sites of national interest. It proposes a comprehensive strategy for structuring the territory around key urban agglomerations: (1) Greater Beirut, (2) Jbeil (Byblos) and Saida, (3) Tripoli, (4) Zahle-Chtoura and Nabatieh, and (5) Baalbek and Sour (Tyre). Based on their comparative advantages, it assigns a specific role for each region, while integrating all into the national economy and improving their connection through an efficient transportation network.

The NPMPLT also stresses the importance of urban-rural linkages and economic diversification across the agricultural, industrial, commercial, and service sectors. Specifically, it recommends developing the agricultural sector by leveraging Lebanon's

fertile soil, water resources, and agricultural expertise. It also calls for launching a nationwide tourism strategy that extends beyond Beirut and Mount Lebanon, with a focus on rural tourism to generate income and reduce reliance on urban centers.

To this end, the plan prioritizes the preservation of Lebanon's diverse landscapes and putting the country's natural resources to good use as a social and economic necessity, rather than an ideological or aesthetic one. It emphasizes the need to restore ecological connectivity, reassess national natural wealth, develop water resources, and address quarrying, wastewater, and solid waste challenges. Measures it recommends for regulating the quarrying sector include restricting extraction within 500 meters of protected areas, requiring environmental impact assessments, enforcing rehabilitation obligations backed by financial guarantees, and modernizing legislation with stronger penalties.

The NPMPLT underscores Lebanon's key natural sites of national interest, including high mountain peaks, cedar and juniper forests, pine stands on Mount Lebanon's western slopes, valley beds, and ecological corridors (Figures 5 and 6). It proposes a national project to enhance the country's green and blue network by linking these areas, safeguarding coastal access, and establishing national and regional parks.

Figure 5: Lebanon's green and blue sections identified by the NPMPLT.

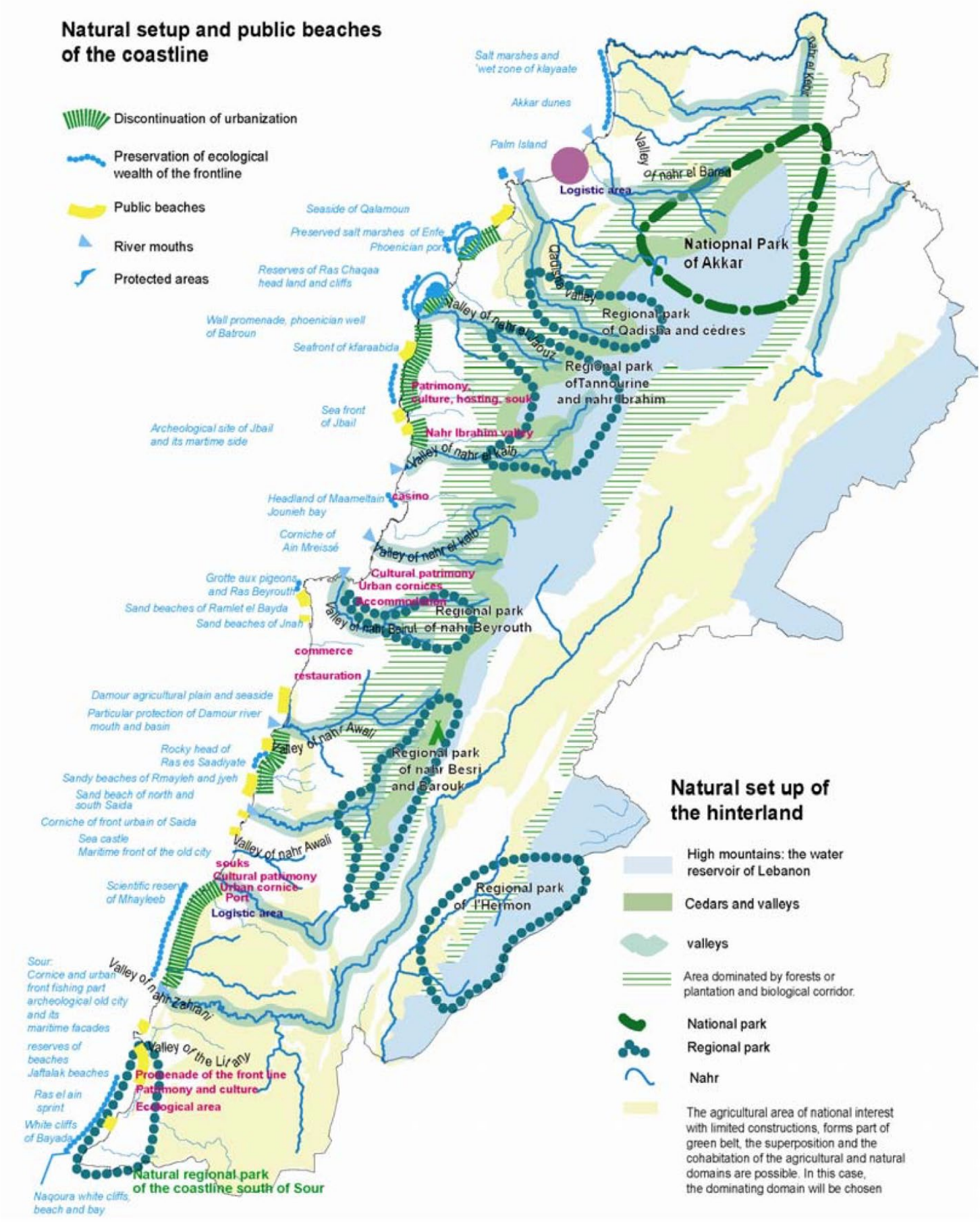


Figure 6: Sites with special assets foreseen by the NPMPLT.

The Gap between Principles and Practice

Despite its internal gaps and contradictions, the NPMPLT provides a comprehensive framework for territorial development and natural wealth protection. However, its recommendations have not been consistently translated into local plans or sectoral policies, which remain misaligned with its guidance. As noted earlier, Lebanon's urban development regulatory system remains skewed toward the interests of powerful landowners and developers, with frequent exceptions and exemptions undermining consistency. Concurrently, contradictory regulations and selective enforcement undermine stated environmental protection principles for forests, maritime public domain, river valleys, and water resources, enabling exploitative practices.

Worse, the state has at times relinquished control over public assets, transferring them to private ownership without valid or convincing justifications (Abou Rouphaël, 2022; Samaha, 2025). The Legal Agenda has documented numerous cases showing how abuse of power and weak rule of law undermine equitable access to resources and enable the privatization of public property, including water bodies. For instance, regulation of the maritime public domain has facilitated its commercial exploitation. Administrative extensions—ostensibly granted to allow violators to regularize their status and remove encroachments—and selective enforcement have allowed powerful actors to continue profiteering from the country's natural wealth (Beainy & Saghieh, 2025).

The quarrying sector displays a similar pattern. In 2019, the MoE adopted a policy prohibiting quarrying in sensitive areas (such as woodlands, cedar corridors, and parks) and mandated buffer zones around rivers, springs, and residential areas (SOER, 2020). However, this policy has not been backed by legal frameworks capable of preventing regulatory erosion. Instead, proposed amendments to Decree No. 8803/2002—the primary law regulating quarries and crushers—are tailored to benefit operators, granting them delays and operational extensions that shield them from accountability. Judicial rulings against such practices are frequently ignored or undermined, reflecting a broader anti-judicial mutiny that consolidates the dominance of extractive industries (Saghieh, 2023).

Civil society organizations, including the Legal Agenda, the Popular Coalition Against Quarries and Crushers, and affected municipalities, have called for halting the destruction of Lebanon's mountains and relocating quarrying activities to the Mount Lebanon Eastern Range, as stipulated by the sector's master plan. In sharp contrast, a draft decree proposed in 2023 by former Minister of Industry George Boushikian has aligned quarry and crusher regulations with the interests of cement companies. Published and critiqued in the Parliamentary Observatory, the proposal would allow companies to continue operations without adhering to environmental regulations. It would also retroactively legalize past illegal quarry activities, effectively absolving operators of responsibility for environmental crimes and entrenching harmful practices under the guise of legal reform (Saghieh, 2024).

4. Conservation in Practice

Lebanon's territorial planning failures and persistent gaps between conservation frameworks and their implementation raise important questions about how the country's natural wealth is protected in practice—particularly the efficacy of project-based approaches. Several conservation projects have been launched since the early 1990s to safeguard ecologically important sites. These initiatives vary in scale and scope, ranging from high-end private ventures to formal conservation measures to efforts that integrate environmental protection with local economic development. Local governments, activists, international organizations, financial institutions, and private sector actors have all been involved in their realization.

This section provides an overview of major conservation initiatives, mainly those that received external funding. It groups them into six categories that correspond to established or emerging models in international conservation practice: (1) protected and conserved areas, (2) community conserved areas, (3) integrated conservation and development programs, (4) landscape-scale conservation, (5) ecotourism-based conservation, and (6) conservation finance.

Protected and Conserved Areas (PCAs)

Protected and conserved areas (PCAs) are designated and established through formal legal mechanisms (Barrow, 2025). According to the International Union for Conservation of Nature (IUCN), these areas "are the cornerstone of biodiversity conservation and one of the most important tools to help promote climate change mitigation and adaptation, and strengthen social, economic and environmental benefits of PCAs."[17]

In Lebanon, establishing PCAs is complex, requiring political patronage and sustained advocacy to overcome implementation challenges. The country's first two nature reserves—Horsh Ehden and Palm Islands—were created in 1992 under Law No. 121, thanks to the efforts of botanist Ricardus Haber and the Friends of Nature (Makdisi, 2012). Since then, environmentalists and local actors have pushed for the protection of natural heritage. Lebanon currently has 18 designated nature reserves and 17 protected nature sites overseen by the MoE (Figure 7). In addition, three sites have been designated as UNESCO Biosphere Reserves (Al Shouf Cedars, Jabal Al Rihane, and Jabal Moussa) (Appendix 2).

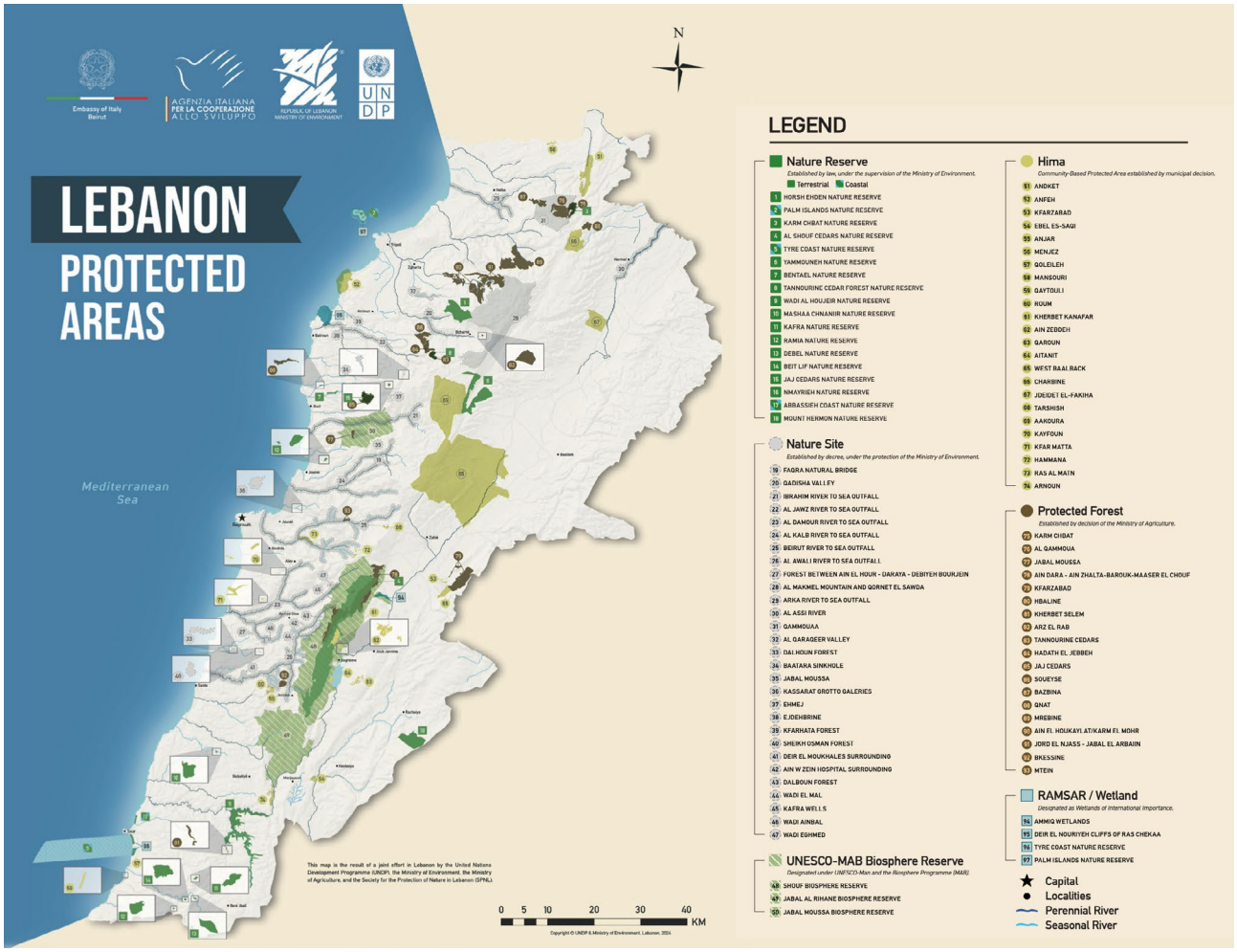
While outside MoE jurisdiction, the privately owned Aammiq Wetland has also been conserved and internationally recognized. It was designated an Important Bird Area in 1994, a Ramsar site in 1999, and included in the UNESCO-declared Shouf Biosphere Reserve (SBR) in 2005.[18] De facto, all three of Lebanon's biosphere reserves integrate public and private land. Jabal Moussa Biosphere Reserve is mainly established on *waqf* (endowment) land owned by the Lebanese Maronite Patriarchate and several affiliated churches. Its classification process was complex, but the Association for the Protection of Jabal Moussa (APJM), a local non-profit organization, successfully negotiated

17. International Union for Conservation of Nature (IUCN). (n.d.) "Protected and Conserved Areas." https://iucn.org/our-work/region/asia/our-work/protected-and-conserved-reserveareas

18. Shouf Biosphere Reserve. https://www.destinationshouf.com/attractions/details/shouf-biosphere-reserve

a long-term lease with the patriarchate. With the support of the MoE and UNESCO, the area was designated as a biosphere reserve (Dhaini, 2023).

Figure 7: Map of Lebanon's protected areas (2025).



Several draft laws currently under consideration in parliamentary committees aim to further strengthen protection by establishing new nature reserves and safeguarding Lebanon's high mountain ecosystems.[19] Established on state-owned land, the nature reserves designation has typically followed a multi-stage process initiated by local authorities in response to local and national environmental groups or, at times, the demands of powerful political parties and ruling families. This process culminates in a protection law issued by the Lebanese parliament. Initially managed by politically affiliated local NGOs, the reserves came under the broader oversight of Appointed Protected Area Committees (APACs), established by the MoE in the early 2000s. Composed of local volunteers, the mandate and composition of APACs were later formalized under Law No.130/2019.[20]

19. For information on these draft laws and their status, see Parliamentary Observatory (Lebanon). Available at: https://www.lapoleb.com.

20. Law No. 130/2019 defined the formal composition of APACs to include representatives from relevant municipalities, active local NGOs, environmental experts, and university professors, as specified in the law establishing each nature reserve. It granted them administrative and financial independence and tasked them with overseeing the proper management of their respective reserves.

Building upon this institutional foundation, the MoE is now working to increase the area of protected zones to reach the 30% target of land and marine areas by 2030,[21] matching the global 30% goal established under the Convention on Biological Diversity in December 2022.[22]

Despite considerable advances, significant governance and enforcement gaps persist. Some sites lack a clearly demarcated buffer zone, a critical element for effective landscape protection. Private property within and around nature reserves poses a major challenge, as powerful landowners often bypass land-use regulations and construction guidelines. Local political dynamics, the influence of landowners, and investor priorities frequently determine which areas are protected and how buffer zones are enforced. APACs and the MoE lack the legal authority to stop these violations. As a result, many PCAs face ineffective management, encroachment, and real estate pressures.[23]

Community Conserved Areas (CCAs)

Unlike PCAs, community conserved areas (CCAs) are not officially designated conservation zones. The term "conserved" in this context refers to the traditional practices and customary norms through which local and indigenous communities have historically managed and protected natural areas (Barrow, 2025). These areas often predate formal conservation systems, reflecting longstanding, culturally embedded relationships between people and their environments.

In Lebanon and parts of the Arab region, the traditional *hima* system closely aligns with the definition of CCAs. Rooted in established ecological knowledge, this communal and adaptive management model has been practiced for millennia by pastoralists and rural populations (FAO, 2009). Revived in 2004, *hima* offers a significant alternative to officially designated nature reserves. It directly engages local communities in the protection and governance of communal lands (municipal or community-owned *mushaa*') and natural resources. Before 2004, the term "national *hima*" (حمى وطني) was often used interchangeably with "protected area" (محمية), referring to state-owned lands under the supervision of the MoA. This earlier usage differs from the post-2004 understanding of *hima* as a community-led model.

Regardless of designation date, however, local actors have always played a key role in the classification of *hima* sites. For instance, the natural landscapes of Kfarzabad were initially protected by two early decisions issued by the then-minister of agriculture, at the request of the people of Kfarzabad.[24] Continued efforts by the Kfarzabad municipality led to placing Kfarzabad swamps (wetlands) near the Shamsin Spring's watercourse under a traditional *hima* framework by Municipal Resolution No. 24/ 2004, which prohibited encroachments on the designated *hima* site, including fishing.[25]

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21. For more on the MoE efforts, see Lebanese National News Agency. (2025, January 25). "Yassin chairs Annual Protected Areas Forum as part of EU-Funded Project" [ياسين يرعى منتدى الحمى السنوي في إطار مشروع ممول من الاتحاد الأوروبي]. https://nna-leb.gov.lb/ar/متفرقات/754538/ياسين-يرعى-منتدى-الحمى-السنوي-في-إطار-مشروع-ممول-م

22. The December 2022 COP to the CBD set an ambitious global target of protecting 30% of terrestrial, inland water, and coastal and marine areas by 2030 (Corson & Campbell, 2023).

23. *Based on information obtained in* 2022-2023 during meetings with the APACs and the MoE in the context of the *Development of Detailed Management Plans for the Nature Reserves in Lebanon* project (see Appendix 1).

24. The first (Decision No. 71 (dated 13/5/1992) created a "national hima" on 20 plots of land of the state's private domain, intended for the protection and preservation of the environment and wildlife. With the aim of preserving Lebanon's forest wealth, the second (Decision No. 298 dated 23/11/1998) mandated the protection and conversion of property No. 1701 of the state's private domain into a forest and prohibited the entry of livestock for grazing in the area

25.This was followed by Municipal Resolution No. 25, which explicitly banned fishing in the vicinity of the swamps. SPNL. Hima Kfafzabad [حمى كفرزبد]. https://arabic.spnl.org/حمى-كفرزبد

Largely due to the efforts of the Society for the Protection of Nature in Lebanon (SPNL) and Homat Al Hima International (HHI), there are 33 *hima* areas across Lebanon today established by SPNL, covering roughly 6% of the country's territory (Murad, 2024). Their designation is made by municipal decisions, allowing local authorities to take a leading role in conservation efforts.[26] Law No. 130/2019 reinforced the legitimacy of the *hima* by embedding it within the national protected area framework (Figure 7).

Recent initiatives, such as SPNL's Doroub Al-Hima project, have sought to integrate the *hima* model into eco-tourism and sustainable development strategies, enhancing biodiversity and strengthening ecological corridors.[27] However, some agricultural experts caution against romanticizing the model.[28] They note that while *hima* has been effectively marketed as a panacea for sustainable resource management and community empowerment, there are documented cases of weak governance, poor enforcement, and resource theft within *hima* sites.

Integrated Conservation and Development Projects (ICDPs)

Integrated conservation and development projects (ICDPs) link biodiversity protection with socio-economic development, particularly in rural areas adjacent to protected zones, by aligning conservation objectives with local livelihood needs. Developed in the mid-1980s as a more participatory and people-centered alternative to strict preservationist models, ICDPs remain central to conservation strategies in the Global South.[29]

In Lebanon, FAO, UNDP, and other international agencies have promoted such approaches to conservation and development. Since its creation in 1993, the MoE has received sustained support from UNDP in capacity-building, policy development, and conservation zones management.[30] Early collaborations, such as the "Protected Areas Project (1996–2004),"[31] combined infrastructure development, biodiversity studies, and community engagement in three flagship reserves—Palm Islands, Al Shouf Cedars, and Horsh Ehden.

More recently, UNDP has supported the MoE in preparing management plans for 11 nature reserves across Lebanon through the "STEPping up Nature Reserves Capacity" (STEP4Nature) project—a flagship initiative launched in 2018 with funding from the Agenzia Italiana per la Cooperazione allo Sviluppo (AICS).[32] The project integrates biodiversity conservation and eco-cultural tourism to strengthen institutional capacity, enhance community engagement, and improve long-term planning in nature reserves and their surrounding areas. It is also aligned with the "National Biodiversity Strategy

26. Interview with the president of SPNL by Ghadi News (February 28, 2024), Asaad Serhal: The "Hima system" is an effective mechanism for nature protection [أسعد سرحال: نظام «الحمى» آلية فعالة لحماية الطبيعة]. https://www.ghadinews.net/news/42275/نظام-«الحمى»-آلية-فعالة-لحماية-الطبيعة-أسعد-سرحال:-

27. Society for the Protection of Nature in Lebanon (SPNL). (2025, January 30). "Doroub Al-Hima" project – Promoting eco-tourism in Lebanon. https://www.spnl.org/doroub-al-hima-project-promoting-eco-tourism-in-lebanon/

28. Insights based on verbal communication with experts in the field, 2024-2025.

29. First developed by the World Wide Fund for Nature (WWF), this model later inspired approaches such as people-centered conservation and development, eco-development, and community-based natural resource management (Hughes & Flintan, 2001). More recently, nature-based solutions (NbS) have gained prominence, sharing with ICDPs the goal of delivering benefits for both people and nature (Cohen-Shacham et al., 2016).

30. UNDP. (n.d.). Institutional Strengthening of the Ministry of Environment Phase II (ISMOE II). https://www.undp.org/lebanon/projects/institutional-strengthening-ministry-environment-phase-ii

31. The project was jointly implemented by UNDP and the MoE, in collaboration with the International Union for Conservation of Nature (IUCN) with funding from the Global Environment Facility (GEF).

32. UNDP. (n.d.). Stepping up nature reserves capacity – STEP4Nature. https://www.undp.org/lebanon/projects/stepping-nature-reserves-capacity-step4nature

and Action Plan for 2030" (NBSAP 2030), which aims to increase forest cover from 13 to 20% over 20 years.

Beyond protected areas, the MoA leads large-scale conservation initiatives integrating ecological restoration and rural development. A key project is the "National Afforestation and Reforestation Programme" (NARP), launched in 2012 to restore Lebanon's green cover and improve livelihoods in disadvantaged rural regions.[33] Also known as the "40 Million Tree Program," NARP supports ecological health and stability in agricultural lands, forests, and rangelands. The "Smart Adaptation of Forest Landscapes in Mountain Areas" (SALMA) project, launched in 2016 and completed in 2023,[34] had similar goals. Funded by GEF and implemented by FAO in partnership with the MoA and local NGOs, SALMA combined reforestation with climate adaptation to enhance forest resilience and engage rural communities in sustainable management.[35]

Despite these efforts, there are persistent challenges and implementation gaps. Some projects have not been fully operationalized, while others seem to have been "parachuted" into communities without proper situational assessments or alignment with local needs. Weak follow-up, opaque funding oversight, and limited institutional accountability undermine the long-term impact of ICDPs, leaving many plans as paper documents rather than active frameworks for conservation and development.[36]

Landscape-Scale Conservation

Landscape-scale conservation seeks to align biodiversity protection with human well-being by promoting cross-sector, multi-stakeholder collaboration (Pfund, 2010; Reed et al., 2016). Unlike site-specific approaches, it addresses environmental and social challenges across large, contiguous areas, fostering ecological networks and corridors to maintain ecosystem connectivity, health, and functional integrity. Global interest in these holistic approaches has grown in response to pressing challenges such as poverty, food insecurity, climate change, and biodiversity loss (Donaldson et al., 2017; Trombulak & Baldwin, 2010).

In Lebanon, international organizations and local actors are increasingly endorsing such frameworks to harmonize ecological and socio-economic development goals. Ongoing efforts aim to reduce land degradation, support climate resilience, improve ecosystem services, create new local economic development opportunities, empower vulnerable communities, and promote place-based stewardship.

A leading example is the Shouf Biosphere Reserve (SBR), the largest reserve in Lebanon, covering approximately 500 square kilometers (core, buffer, and transitional zones)— about 5% of the country's total area.[37] Backed by Walid Jumblatt, a prominent political leader, and supported by numerous international organizations, the SBR includes 22 villages within its core and buffer zones, where biodiversity conservation is integrated with land-use planning. Its transitional zone encompasses the surrounding villages, where sustainable resource management practices are also promoted.

33. FAO. (n.d.). Reforestation and afforestation efforts in Lebanon. https://www.fao.org/neareast/news/stories/details/reforestation-and-afforestation-efforts-in-lebanon--a-restoration-success-story/en

34. NEWSP. (n.d.). "SALMA Project": Forest and Rangelands Monitoring System and Forest Suitability Map Development in Lebanon. https://ewsp.gov.lb/portfolio-item/salma-project-forest-and-rangelands-monitoring-system-and-forest-suitability-map-development-in-lebanon/

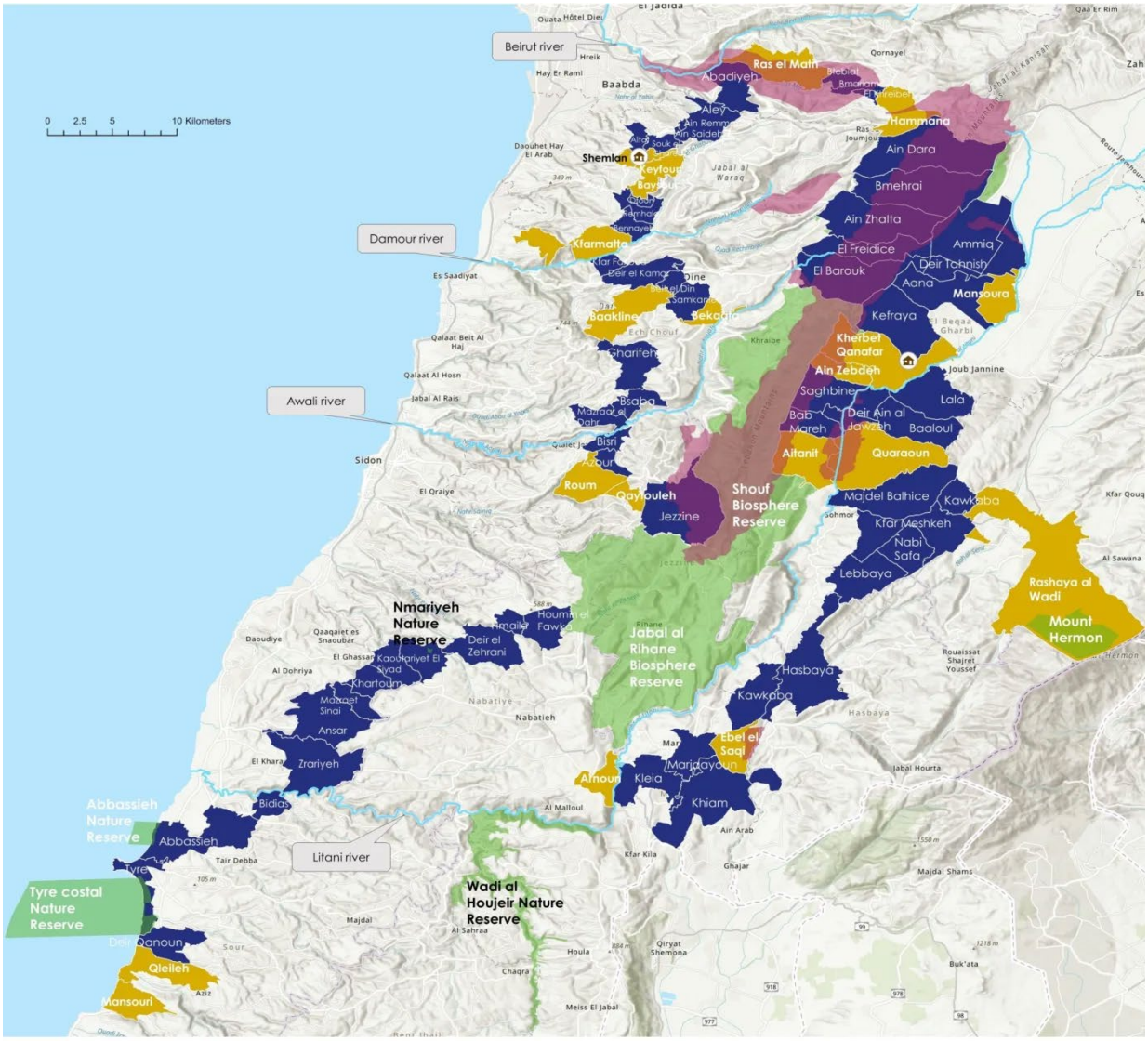
35. NEWSP. (n.d.). "SALMA Project": Forest and Rangelands Monitoring System and Forest Suitability Map Development in Lebanon. https://www.fao.org/neareast/news/stories/details/reforestation-and-afforestation-efforts-in-lebanon--a-restoration-success-story/en

36. Insights based on verbal communication with experts involved in some of these projects, 2025.

37. Shouf Biosphere Reserve. https://www.destinationshouf.com/attractions/details/shouf-biosphere-reserve

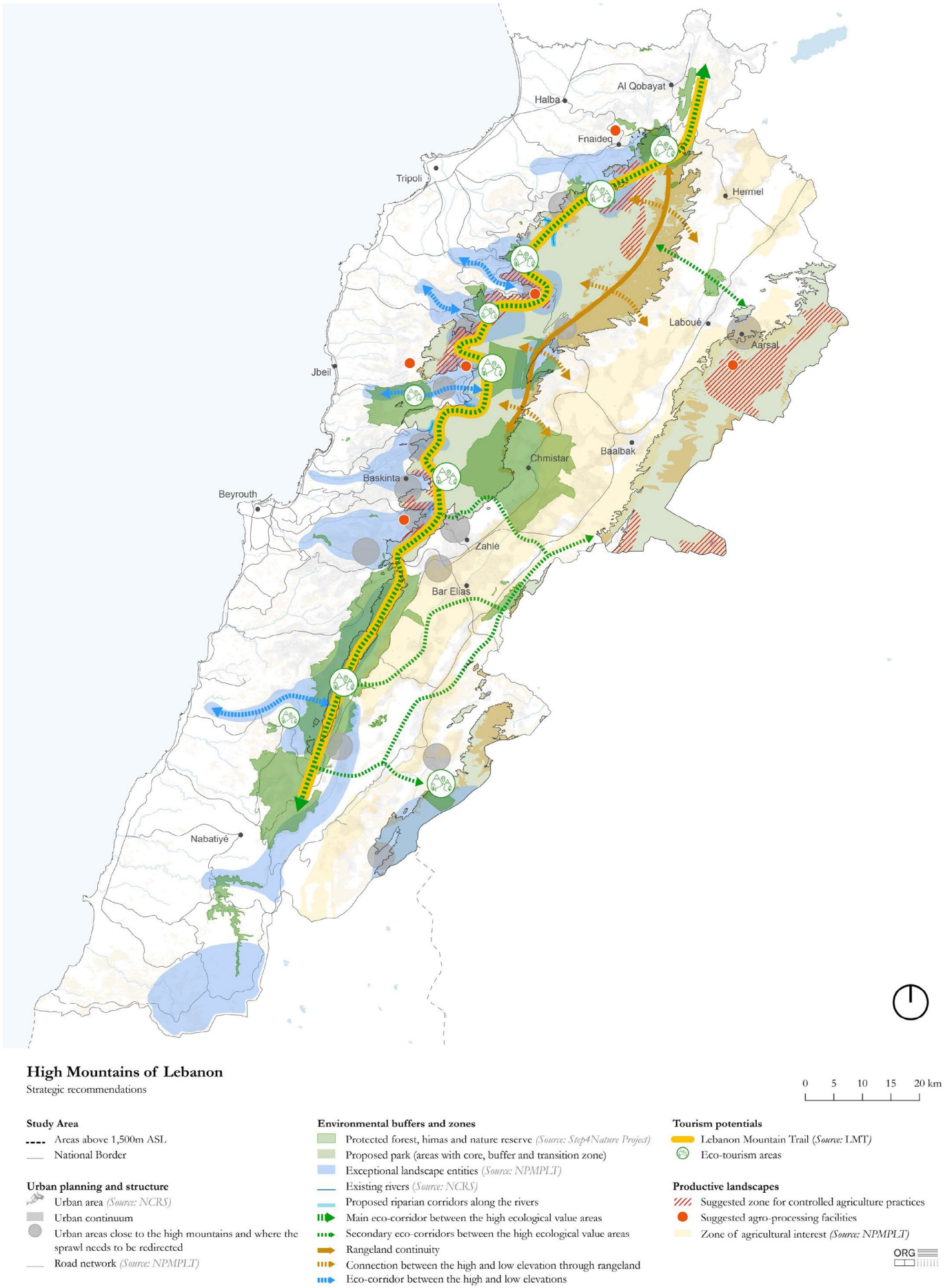
In 2023, the MoE launched a 500-meter-wide ecological-social corridor linking the Shouf Biosphere Reserve to Mount Hermon Nature Reserve through several towns in Rachaya and Southern Bekaa districts. Envisioned under the broader BioConnect project (Figure 8), this initiative was endorsed by local authorities and civil society groups. It seeks to enhance biodiversity, strengthen climate adaptation, and increase groundwater recharge.[38] Under a European Union-funded program supporting biodiversity conservation in Lebanon, this project (in line with the orientation of the NPMPLT) promotes territorial connectivity among Lebanon's protected areas and significant ecological sites, including designated hima areas (Baaklini, 2023; SPNL, 2025).

Figure 8: The BioConnect Project, aimed at improving the management of ecologically significant sites and establishing new Protected Areas and Other Effective Area-Based Conservation Measures to enhance landscape conservation.



38. The corridor launch document, signed by all concerned stakeholders, is known as the Qaroun Declaration. NNA (2023, April 26). https://www.nna-leb.gov.lb/ar/متفرقات/610302/وزير-البيئة-اطلق-الممر-الحيوي-في-البقاع-الغربي-ورا

Figure 9: Lebanon High Mountains Master Plan.



Another significant initiative aligned with the NPMPLT is the "Lebanon High Mountains Protection" project (Figure 9), which aims to protect ecologically and culturally critical high-altitude areas from threats such as overgrazing, tourism, and climate change. The project emerged from sustained advocacy of civil society coalitions, notably the Lebanese Advocacy Network for Environment (LANE). Composed of experts, NGOs, universities, and local activists, such as Huraas Al-Qimam, this coalition pushed for updating the NPMPLT and drafted a landmark law, introduced by MP Michel Douaihy. The proposed law prohibits urban expansion on important natural landscapes and mandates immediate protection of significant sites through robust land-use regulations (Roland, 2024).

Developed with the support of UNDP, the "Lebanon High Mountains Protection" project has incorporated these regulatory measures into high-mountain territorial plans, using a multi-scalar landscape approach that protects green and blue networks. Similarly, the territorial development plan for the Zahle district, developed under UN-Habitat's "Resilient Water Solutions Against Climate Change" project, applies a landscape approach to territorial planning. It emphasizes ecological corridors while guiding urban expansion away from productive agricultural land, ecologically sensitive zones, and areas prone to flood risks.

Despite growing support, landscape-scale initiatives face persistent challenges stemming from chaotic urban expansion, fragmented governance, complex landownership patterns, and insufficient data and research. Reaching consensus on a shared vision and priorities for funding and development remains difficult. Moreover, there is a lack of systematic coordination among all concerned institutions and groups, as well as challenges in ensuring consistent application of laws and regulations across multiple jurisdictions.[39]

Ecotourism-Based Conservation

Many governments and development organizations in the Global South have long leveraged natural and cultural heritage as tools for sustainable development. Alternative tourism models like eco-tourism, rural tourism, and nature-based tourism frequently feature on national and local agendas, attracting international support and private investments.

Lebanon's diverse landscapes and rich cultural heritage support such approaches. In rural and mountainous regions, conservation and ecotourism have become central pillars to local development strategies—ranging from participatory stewardship models to luxury, market-driven initiatives (Citton et al., 2020). Over the past two decades, initiatives linking conservation with ecotourism, hiking, and adventure travel have expanded significantly. A prominent example is the Lebanon Mountain Trail (LMT)—a 470-kilometer national hiking route conceived in 2005 by ECODIT and primarily funded by USAID. The trail, now managed by the nonprofit Lebanon Mountain Trail Association (LMTA), embeds conservation goals within a broader national territorial vision that promotes environmental education, sustainable tourism, and rural economic development.[40]

Passing through more than 75 towns and villages, the LMT connects diverse ecosystems and communities across Lebanon while showcasing the country's ecological diversity and cultural richness. However, keeping the trail's alignment intact

39. Based on personal communication with practitioners involved in landscape-scale conservation initiatives, 2025.
40. Lebanon Mountain Trail. https://www.lebanontrail.org/home

and safeguarding it from urban encroachment has proven challenging, as parts of it pass through private property and are exposed to development pressures. To address gaps in land-use regulation, the LMTA is working with the DGUP to formally integrate the trail into municipal master plans—an essential step to securing its long-term protection. While consistent with the NPMPLT's emphasis on linking ecotourism with conservation, the integration process is complex and lengthy, requiring coordination across multiple jurisdictions and sustained institutional commitment.

Beyond the LMT example, luxury ecotourism has emerged in recent years as a model linking nature with leisure and exclusivity. Several private sector-led projects illustrate a growing trend to promote Lebanon's landscapes and natural assets more for their market appeal than for their public ecological benefit.[41] The real estate portfolio of FFA Private Bank exemplifies this approach. Operating across multiple countries, FFA Real Estate markets Lebanon's "breathtaking scenery" and "charming and well-preserved Lebanese mountain villages," as development opportunities for investors and landowners seeking to increase the value and returns of their property assets.[42]

While luxury ecotourism projects have explicitly commodified Lebanon's natural assets, conservation-focused models, like the LMT, have also contributed to this process in subtler ways. Despite its developmental rhetoric, the LMT promotes the Lebanese mountains for their exchange value and the recreational experiences they offer. The trail and the villages it crosses were largely chosen for their scenic and cultural appeal, creating new income opportunities for local populations. However, without broader rural development strategies and state support, such ecotourism projects have limited potential to alleviate poverty or drive widespread development (Khechen, 2010).

Conservation Finance

Conservation finance aims to channel capital toward nature-positive outcomes through instruments such as carbon and biodiversity credit markets, green bonds, and debt-for-nature swaps. By framing ecosystems as "natural capital," it positions nature as an asset with measurable economic value, enabling both public and private actors to invest in its protection and benefit from its returns (Filewod & Murdoch, 2023).

In Lebanon, conservation finance is still nascent but signals a shift in environmental governance toward market-based approaches that monetize nature. Since 2018, a growing portfolio of green finance initiatives (backed by partnerships between international organizations, development banks, local banks, and national institutions) has targeted climate change mitigation, energy efficiency, and sustainable infrastructure.

An early example is the Green Economy Finance Facility (GEFF),[43] a joint effort by Bank Audi and the European Bank for Reconstruction and Development (EBRD), which offers subsidized loans for a spectrum of environment-friendly interventions, including tree planting.[44] Other programs, such as the UNDP–IBL Bank Green Loan and Fransabank Eco-Friendly loan, extend similar financing to households and businesses.

41. Developments such as Naas Springs, Ahlam Golf and Village, and Amchit Bay Beach are a few examples.

42. FFA Real Estate (n.d.). Development projects: https://www.ffarealestate.com/development-projects

43. GEFF. EBRD and Bank Audi partner for first green finance project in Lebanon. https://ebrdgeff.com/ebrd-and-bank-audi-partner-for-first-green-finance-project-in-lebanon/

44. Bank Audi. Environmental loans. https://www.bankaudi.com.lb/about-the-bank/csr-2018/listing/environmental-protection/environmental-loans

While diverse in scope, these instruments remain primarily focused on energy efficiency rather than ecosystem protection.[45]

More recently, national actors have begun exploring conservation finance in the context of climate resilience and post-crisis recovery. Introduced in 2023 by the MoE and UNDP, the Lebanon Green Investment Facility (LGIF) aims to serve as a blended finance platform and encourage private sector investment in low-emission development. Voluntary greenhouse gas emissions reporting by private companies—aligned with the Paris Agreement and Lebanon's Decision No. 99/1 (2013)—was identified as a critical step toward national transparency and accountability.[46] Nevertheless, ensuring transparency and accountability in conservation finance remains critical to guaranteeing that investments deliver genuine public environmental benefits rather than primarily serving private financial interests.

45. For examples, see: https://ebrdgeff.com/ebrd-and-bank-audi-partner-for-first-green-finance-project-in-lebanon/, https://www.ibl.com.lb/english/personal-banking/loans/green-loans/undp-green-loan, https://csr.fransabank.com/csr/environment/eco-loans-for-retailers-amp-individuals

46 . UNDP (2025, January). Lebanon Advances Climate Action: UNDP and Ministry of Environment Host Panel Discussion on Progress and Challenges. https://www.undp.org/lebanon/press-releases/lebanon-advances-climate-action-undp-and-ministry-environment-host-panel-discussion-progress-and-challenges#:~:text=Through%20collaborative%20efforts%20between%20the,emission%2C%20climate%2Dresilient%20future.

5. Conservation Challenges and Pitfalls

The six approaches outlined above reflect a growing diversification of nature protection strategies, opening space for collaborative efforts in the name of sustainable development and climate resilience. Yet conservation in Lebanon remains limited and largely ineffective on the ground. On the one hand, political interference and entrenched governance failures undermine environmental stewardship, which remains fragmented and shaped by conflicting visions. On the other hand, escalating ecological risks, ambitious global biodiversity targets, and Lebanon's lack of financial capacity to meet these targets are driving a turn towards private finance and "innovative" funding mechanisms, while also accelerating the commodification of nature for profit.

Indeed, despite sustained environmentalist efforts, Lebanon's natural heritage and cultural landscapes face severe pressures from extractive activities and unregulated development. Even officially protected areas are threatened, with many remaining as isolated pockets within a rapidly urbanizing and increasingly exploited landscape (Kingston, 2013). These pressures are further compounded by the country's "sectarian competition for land" (Vizoso, 2024), which influences conservation decisions while allowing elites to exploit natural resources for personal and financial gains at the expense of the public good (Sleiman, 2024). Equally concerning is the notable rise of exclusive eco-resorts and privately managed conservation ventures—often justified on ecological or economic grounds—which risks marginalizing communities whose traditional knowledge and oversight is essential to sustainable conservation.

Lebanon's natural heritage and cultural landscapes face severe pressures from extractive activities and unregulated development. Even officially protected areas are threatened, with many remaining as isolated pockets within a rapidly urbanizing and increasingly exploited landscape.

Drawing on specific examples,[47] this section examines the structural factors shaping conservation trajectories in Lebanon through a political economy lens. It focuses on three interrelated aspects: land politics, elite capture, and governance gaps. First, it looks at how land-use decisions, resource allocation, land tenure rights, and development pressures can hinder conservation efforts. Second, it explores how elite capture and market-oriented conservation models, including greenwashing practices, can shift benefits toward powerful actors while transferring ecological and economic burdens onto marginalized communities. Third, it highlights how systemic governance failures, including the influence of international funding dynamics, reinforce social inequalities and exacerbate vulnerability.

47. Many of these examples derive from cases the author encountered through participation in related projects (see Appendix 1). Where possible, information was cross-checked against published sources and media reports, though most cases are not systematically documented, and some have no documentation at all.

Land Politics as an Impediment to Conservation

As mentioned earlier, territorial planning in Lebanon is undermined by the absence of a shared, long-term vision for land and resource use. While the NPMPLT provides a cohesive general framework for balanced regional development, its recommendations have not been effectively translated into subnational and local plans. They also have not been updated in response to emerging spatial, political, and socio-economic realities. Development priorities are defined by political actors who tend to focus narrowly on their constituencies' geographic areas. Consequently, concerns over maintaining the balance of power among competing political groups often overrides environmental and developmental considerations.

This fragmentation, combined with lack of integrated planning frameworks and coherent governance structures, obstructs conservation efforts—particularly landscape-scale strategies aimed at protecting and restoring ecological corridors and networks. At the local level, competing interests in land and resources between neighboring municipalities and land-right holders can further divert decision-making away from environmental priorities, stalling or derailing conservation initiatives. Conflicts often emerge over the commons and shared water resources, as well as where land tenure is insecure and when development projects ignore local communities.

a) Conflicting Development Priorities of Adjacent Municipalities

Incompatible development priorities of adjacent municipalities can significantly obstruct conservation efforts. Cases illustrating how fragmented governance, political interference, and competing development visions play out in practice abound. For instance, Wadi Zeebqeen—one of the most distinctive forested areas in southern Lebanon, spanning several towns and villages—remains unprotected despite a decade-long effort by the Green Southerners to designate it as a nature reserve.[48] Although the mayors of Zeebqeen and Yater supported the proposal, it failed to advance after a road project took priority.[49] Promoted as a means of improving connectivity between the districts of Bint Jbeil and Sour (Tyre), the road was given precedence over conservation despite the valley's ecological significance. Without a unified territorial planning vision for all towns surrounding the valley, short-term political interests prevailed over long-term conservation goals.

A similar pattern of political interference in development decisions is evident in Aley.[50] There, the municipality successfully blocked the construction of a multi-villa complex on private forested land by appealing to Walid Jumblatt, the area's political leader. However, it was unable to advance a proposal to protect the *mushaa*' (communal land) shared between Aley and neighboring towns. Aley's mayor supported the proposal, citing the town's shrinking green areas and mounting urban expansion pressures. But the land's collective ownership by citizens from multiple surrounding municipalities, rather than Aley alone, rendered the initiative politically unfeasible. Without of a territorial development plan that balances conservation and housing needs, the *mushaa*' remains vulnerable to urban encroachment.

48. Information is based on the Green Southerners' Facebook posts and verbal communication with the group's president, 2025.

49. The road was proposed by the former mayor of Beit Lif (Hassan Issa), one of the towns through which the proposed reserve passes. It was approved in 2018 by the then-Minister of Public Works and Transport (MoPWT), Ghazi Zaiter, with support from the Amal Movement. Ongoing Israeli assaults on Lebanon have caused significant damage to Wadi Zeebqeen's natural landscape; however, this issue is outside the scope of this report.

50. Information obtained in 2018 during meetings with Aley municipal staff in the context of the UPFI Project (see Appendix 1).

The situation in the Touite area is more complex. Although it falls geographically in Zahle municipality (Zahle district), its *mushaa'* is owned by Kfar Silwan municipality (Babdaa district). Kfar Silwan has exploited this *mushaa'* for quarrying activities, seriously undermining Zahle's urban planning and conservation efforts. Moreover, because the quarries are located within Zahle's municipal boundaries, the resulting environmental damage (land degradation, pollution, and infrastructure stress) is concentrated in Zahle, while Kfar Silwan remains geographically removed from the impacts. Touite can thus be seen as a "sacrifice zone," externalized by Kfar Silwan and used for undesirable activities. This pattern of externalization is observed elsewhere in Lebanon, where areas close to municipal administrative borders and the public domain, particularly riverbeds, often become sites for environmentally harmful activities, degrading the landscape and undermining effective territorial planning.

b) Competing Interests over Shared Resources

Competition over shared resources can intensify tensions among the municipalities that depend on them, leading to mismanagement and depletion. In the Zahle district, competing interests over water resources, compounded by broader political and economic tensions, pose a growing threat to shared water resources. The Berdawni Spring—Zahle's main potable water source—has been at the center of a long-running dispute between Zahle, Hazerta, and Qaa Al-Rim.[51] Chronic infrastructure failures and a lack of coordinated water management have intensified competition. In 2008, a CDR project to increase the spring's flow to Zahle met resistance from officials in Hazerta and Qaa Al-Rim, who warned it would deplete their supply. Their objections prompted the Bekaa governor to temporarily halt the project, increasing tension between the neighboring communities. Zahle's mayor accused the two municipalities of monopolizing water for agriculture and industries, stressing that access to the spring is also vital for Zahle's residents, tourism sector, and fish farming (Al-Husseini, 2008). In turn, officials in Hazerta and Qaa Al-Rim argue against the allocation of the region's scarce water resources for non-essential uses, such as filling swimming pools.

While this dispute has remained free of sectarian divisions, it exemplifies how fragmented territorial governance and competing economic interests fuel localized power struggles over natural resources. Indeed, tensions between the three municipalities resurfaced in 2018 when the Berdawni River turned red—Hazerta's mayor later revealed that he had dumped dye at the pollution source to draw attention to Zahle's alleged mismanagement.[52] The dispute reflects the absence of a clear water allocation strategy, raising questions over sectoral priorities as the climate crisis intensifies and contributes to water stress and depletion. As climate change and poor water resource planning exacerbate Lebanon's water crisis, such tensions are likely to become more frequent and severe.

c) Perceived Land Rights and Insecurities

The perception that private landownership confers unrestricted freedom to develop, exploit, or sell land often fuels resistance to land-use regulations in Lebanon. Many landowners view planning controls as infringements on their property rights, which undermines conservation efforts. This is the case of private properties falling within or in the buffer zones of nature reserves and significant cultural landscape sites. The challenge is greater in non-delimited zones, which are not yet fully incorporated into

51. Information obtained in 2024 during meetings with the then-mayor of Qaa Al-Rim in the context of developing a territorial development plan for the Zahle district (see Appendix 1).

52. Information obtained in 2024 during meetings with the then-mayor of Hazerta in the context of developing a territorial development plan for the Zahle district (see Appendix 1).

the definitive cadastral register. In these areas, land claims typically rely on traditional or unregistered documents—such as private sales contracts, Ottoman *tapu* deeds, religious court rulings, or powers of attorney—rather than on official land titles. This lack of clear legal recognition creates tenure insecurity, prompting individuals to resist planning decisions that might threaten or invalidate their land claims.

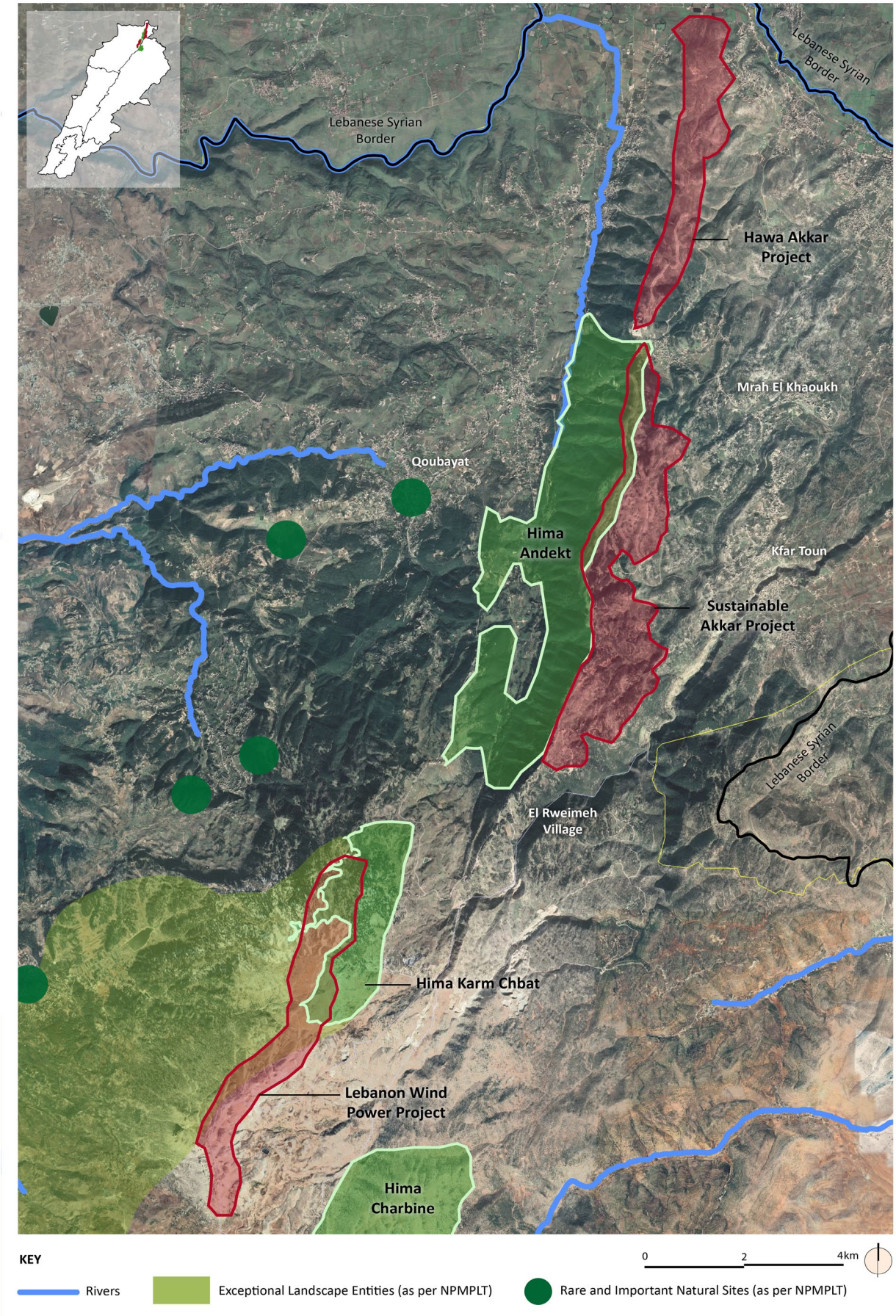
In Wadi Zeebqeen, conflicting land tenure claims posed an obstacle to conservation. Some holders of *tapu* titles opposed the proposed designation of the valley as a nature reserve, arguing that it would restrict their land rights. Social media posts suggest that a fire in the valley may have been deliberately set by individuals who saw the proposed reserve designation as a threat to their ownership claims. These debates illustrate broader concerns for land rights protection amid fears of development-induced displacement—including the need to safeguard shepherds' grazing rights, which can be severely affected by the creation of nature reserves and the enclosure of land.

A similar dynamic emerged in Jabal Akroum in Akkar, where weak land use planning and insecure land tenure have heightened tensions between local communities and external actors over three proposed wind energy projects in their area.[53] Although the National Wind Atlas of Lebanon (2011) identified Jabal Akroum as ideal for wind energy, it did not consider the complex, overlapping ownership and unregistered claims that characterize local land.[54] Licenses granted in 2012 for the three projects allegedly impacted lands used for grazing, recreational hunting, and seasonal settlements by multiple families. The proposed sites are also located in close proximity to ecologically sensitive areas, particularly Karm Chbat Nature Reserve and Hima Andket (Figure 10). Local resistance extended beyond environmental impacts to fears that the projects would undermine farming, pastoral activities, and other traditional uses of the land (Ramboll, 2019). Land tenure insecurity left residents feeling vulnerable to displacement pressures. Fears of regulatory restrictions that would reduce the future value of their ancestral lands fueled this opposition—ultimately leading to the suspension of the three licensed projects.

53. In 2012, the Ministry of Energy and Water granted licenses for three projects in Jabal Akroum—Sustainable Akkar, Lebanon Wind Power, and Hawa Akkar—planned to generate 200 MW of wind energy.

54. For documentary evidence, see article by Nahla Nasser Eddin (2018, August 30) Documented: "Hawa Akkar" Attacks Citizens' Property [بالوثائق: "هوا عكار" يعتدي على أملاك المواطنين]. *Lebanon Debates*. https://www.lebanondebate.com/article/395744-article

Figure 10: Location of the proposed wind farms in Akkar district, showing relative proximity to exceptional landscape entities, including Hima Andket and Karm Chbat Nature Reserve.



Elite Capture and Nature Commodification

Competing claims over land and resources do not occur in a vacuum. Land-use classifications, including conservation area designation, are closely tied to political and economic interests, as well as the goal of achieving "balanced" development among different geographic regions and sectarian communities. In this context, the economic valuation of nature transforms ecosystems into marketable assets and landscapes into commodities, often driving socio-ecological restructuring.

Guided by neoliberal ideologies, these global dynamics intersect with Lebanon's broader territorial politics, frequently turning conservation into a tool for consolidating control over strategic territories and channeling donor funding toward them. Legal and policy frameworks that privilege the interests of powerful groups reinforce elite capture at the expense of landscape continuity and integrity. Crucially, such frameworks enable the privatization and enclosure of commons while restricting access and benefits for local communities. As a result, long-standing relationships to the land are eroding, intensifying social conflicts. Simultaneously, conservation discourse is instrumentalized to obscure extractive and environmentally harmful practices.

a) Territorialization of Conservation

Beyond ecological concerns, conservation initiatives in Lebanon are often driven by political agendas that reinforce territorial divisions. The Shouf Biosphere Reserve (SBR) is a notable example. Walid Jumblatt's leadership has been interpreted as a form of fortress conservation, both safeguarding territory under Druze political control and advancing broader environmental and socio-economic programs (Kingston, 2001; Solberg, 2014; Greeley, 2016). According to residents and activists, while the SBR attracts the bulk of donor support, local NGOs and community-based initiatives often remain underfunded, reinforcing the concentration of resources and visibility in politically backed actors. Restrictions on local practices, such as prohibiting residents from digging wells for irrigation, further illustrate how conservation has curtailed local community access to essential resources without offering viable alternatives.[55]

Similarly, the establishment of the Ehden Forest Nature Reserve and the Wadi Al-Hujeir Nature Reserve received backing from political actors whose influence is closely tied to their respective sectarian strongholds—Suleiman Frangieh and Hezbollah, respectively. This overlap between conservation and politics is not new. The 1986 Master Plan for the Greater Beirut Metropolitan Area, designed during the civil war to manage rapid urban growth, was influenced by sectarian considerations. For example, the plan maintained the agricultural status of the Damour plain partly to limit the expansion of Shia communities from Beirut's southern suburbs into the Druze-dominated Shouf (Sarkis, 1998; Verdeil, 2004). In a similar vein, Jumblatt opposed the post-war tourism land-use re-classification of Damour's beach, presenting his stance as environmental protection. Allegedly, however, his interference with the planning process aligned with the political aim of preserving a buffer zone between religious communities (Kingston, 2013).

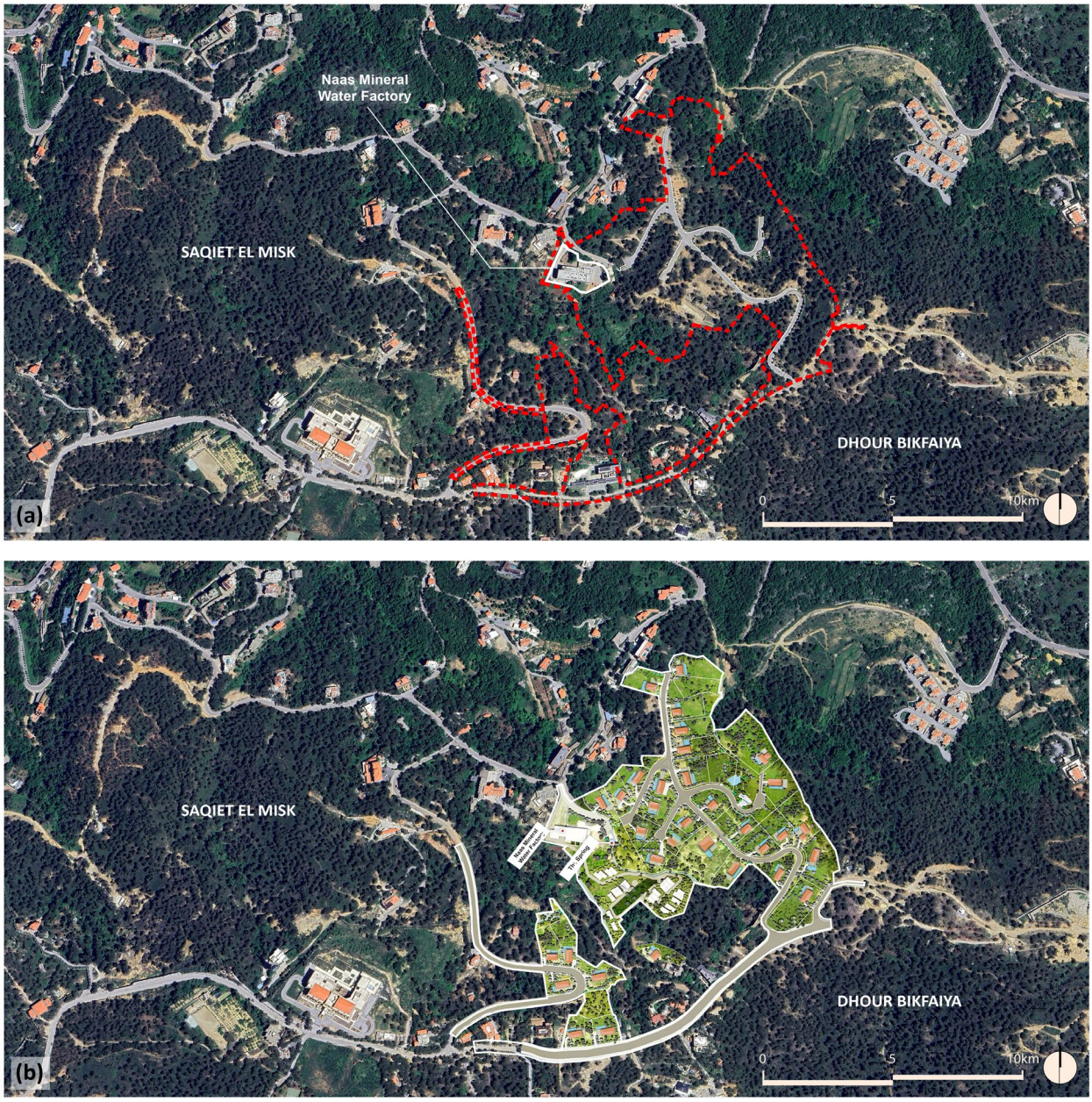
b) Privatization and Exploitation of Natural Resources

Nature economic valuation often drives its commodification, enabling elites to capture benefits and monopolize resources. Leveraging political influence, several conservation projects have capitalized on nature, with limited regard for the public good or environmental sustainability. Under the guise of nature protection and job creation,

55. Based on personal communication with experts and activists residing in or working in the area, 2025.

natural sites once part of agricultural and forested landscapes are being converted into luxury developments and recreational uses, marketed to visitors seeking “unique” rural experiences. Freshwater resources are also being privatized and commodified, often branded in ways that mask their appropriation.

Figure 11: Current site features (upper image) and proposed master plan (lower image) of the Naas Springs Project.



In the Shouf Biosphere Reserve (SBR), the American bottled water brand Aquafina—owned by PepsiCo—sources water for domestic and export markets, as indicated on the product label. Launched in 2020 amid Lebanon’s overlapping crises, the project was promoted as an expression of confidence in the country and a model of environmental compliance, promising terrace rehabilitation, forest protection, and local job creation. International institutions highlight high potential returns on investment from environmental reserves like the SBR, reinforcing such initiatives. Yet in the context of Lebanon’s clean water crisis, diverting fresh water for commercial bottling risks

deepening inequality and prioritizing consumers who can pay, rather than addressing the broader public's right to safe, affordable water.

In Wadi Al-Hujeir, the designation of the area as a nature reserve led to a surge in private swimming pools, attached to newly built villas. This trend mirrors broader patterns of resource commodification, reinforcing social and environmental inequalities. Although not necessarily linked with commercial purposes, this case illustrates how conservation status can be leveraged to create exclusive recreational uses, concentrating access to water resources among wealthier residents.

In Bikfaya, the proposed redevelopment project of the Naas mineral water factory and surrounding pine forest threatens to transform the landscape into a commodity (Figure 11). Acquired by FFA Private Bank, the site is being transformed into a $60 million luxury wellness resort with villas, a hotel, and spa facilities using the spring water.[56] Framed as an "environmentally friendly" destination, the project also involves lobbying for planning guidelines and integrating adjacent lands into a broader high-end tourism master plan. While some green spaces are to be preserved, the large-scale land use change—from agricultural and forested areas to elite-oriented tourism—illustrates how financial and political elites can shape local development to prioritize profit and gentrification over environmental protection and community needs.

c) Commodification of Scenic Landscapes

The commodification of Lebanon's natural landscapes extends beyond privately owned sites to communal lands and public domains, often under the banner of stimulating economic growth and development. Frequently carried out with political backing, several development projects have reconfigured these landscapes, reinforcing existing inequalities. For example, the privatization of large segments of the Lebanese maritime public domain has been justified under the pretext of creating jobs, boosting local economies, and ensuring security, cleanliness, and a safe and healthy environment—tasks that consecutive governments have failed to deliver.

The case of the Shamsin Spring Kfar Zabad (Zahle district) illustrates how political dynamics and the logic of neoliberal economic development reshape landscapes (Figure 12).[57] In 2019, a presidential decree (No. 4335), issued on the last day of former Energy Minister Cesar Abi Khalil's tenure, granted a private investor (Maher Abdullah Abi Shahla) the right to occupy 250 meters of the river public domain of Shamsin Spring—a vital water source for 35 towns in central Bekaa—for a recreational park at a nominal annual fee of LBP 750,000.[58] The agreed timeframe was one year, renewable, to be executed under the supervision of the Directorate of Water Resources. This decision severed the *hima* of Kfar Zabad from its riverfront, undermining municipal plans for community-based eco-tourism and raising concerns about water security and pollution. Despite opposition from local authorities and the Litani River Authority, the permit was not revoked (Khalil, 2019).

The Shamsin case is not isolated. Similar tensions between private and public interests exist in other areas across Lebanon. In Naher Al-Kaleb for example, the construction of a political party headquarters near the archaeological site prompted strong objections from UNESCO, heritage associations, and environmental activists. Concerns centered on potential damage to the site and jeopardizing its candidacy for World Heritage

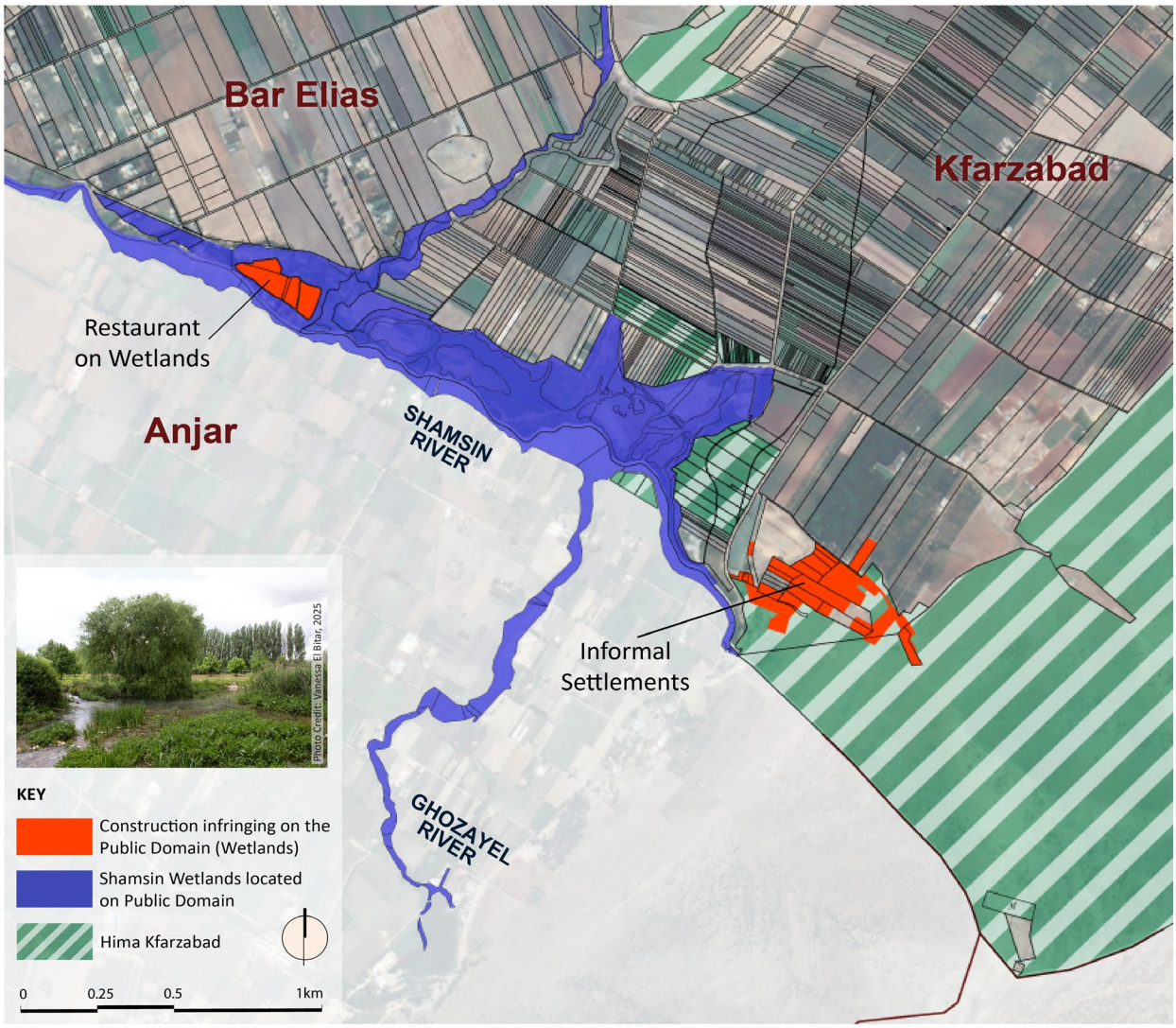
56. FFA Real Estate, Naas Springs Project: https://www.ffarealestate.com/development-projects/lebanon/naas-springs

57. Information obtained in 2024 during meetings with municipal council members and local citizens of Kfar Zabad, in the context of developing a territorial development plan for Zahle district (see Appendix 1).

58. This amount was equivalent to $500 at that time, and worth less than $8.5 today.

status. Despite the legal and cultural significance of the area, construction proceeded, reflecting the recurring tension between private or political interests and public stewardship of Lebanon's natural and cultural resources.

Figure 12: A restaurant in Kfarzabad legally granted the right to occupy the river's public domain (high-value wetlands), in contrast to adjacent informal settlements, which are considered infringing.



Framed as "development," such practices obscure the structural inequalities underlying exploitation and environmental harm, often shifting the blame toward population growth and resource scarcity and overuse rather than addressing systemic causes rooted in disparities of wealth and power. These inequalities affect both the distribution of and control over natural resources, enabling powerful groups to appropriate and exploit them while less connected and poorer communities bear the consequences. Because of asymmetries in political power and influence on decision-making, elites are also able to pollute and deplete resources with little effective constraint, while disadvantaged groups lack the capacity to defend their environmental interests (Boyce, 2002; Boyce, 2022).

d) Corporate Conservation and Greenwashing

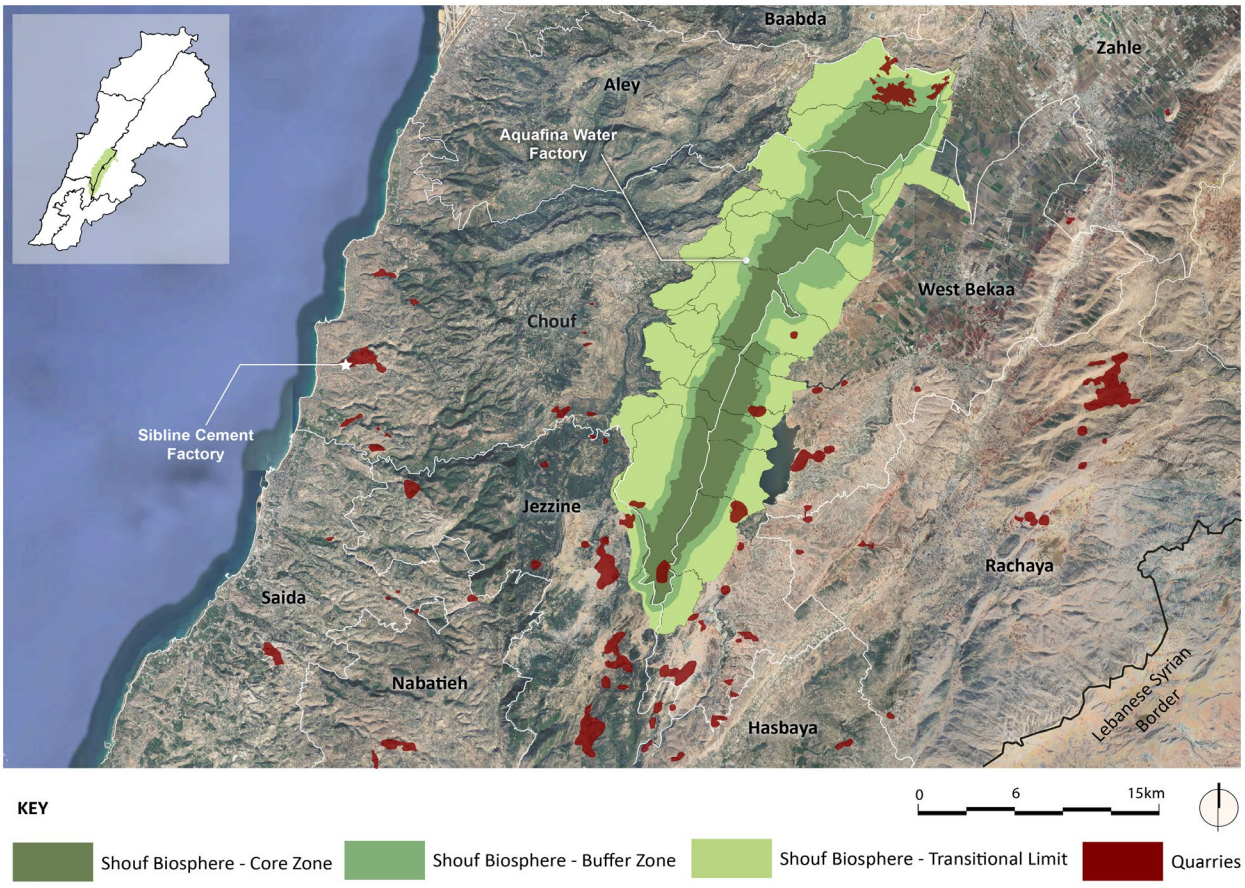
Beyond nature commodification, private conservation efforts in Lebanon are increasingly intertwined with the phenomenon of greenwashing, where companies

promote environmentally friendly initiatives to improve their public image while masking ongoing harmful practices. Labels such as “green” or “eco-friendly” proliferate, often without clear criteria, making it difficult to distinguish genuine efforts from misleading claims.

The case of Jabal Moussa Biosphere Reserve is a notable example of how certain corporations and individuals disguise their harmful activities under the pretext of improving environmental performance. As mentioned earlier, the Association for the Protection of Jabal Moussa (APJM) was founded by local professionals to safeguard the mountain’s biodiversity and cultural heritage (Dhaini, 2023). Paradoxically, the founder and president of APJM, Pierre Doumet,[59] also owns the National Cement Company (Al-Saab), one of three major cement companies in Lebanon with significant environmental impacts.

A similar dynamic is evident in the Shouf Biosphere Reserve (SBR), overseen by the Al-Shouf Cedar Society under the leadership of Walid Jumblatt. Paradoxically, Jumblatt, in addition to his political role, chairs the board of the Sibline Cement Company. Like the Jabal Moussa Biosphere Reserve, the SBR stands in stark contrast to the polluting extractive and industrial activities associated with the decision-makers in cement plants. In both cases, conservation sites are spatially distant from cement operations, supporting political agendas and serving as a green veneer that diverts attention from environmental harms (Figure 13).

Figure 13: Location of the Shouf Biosphere Reserve, showing its distance from the Sibline cement factory and quarrying sites in Shouf and surrounding districts.



59. The Association’s notification announcement published in the official Gazette. http://77.42.251.205/Law.aspx?lawId=216758

Holcim, a globally leading cement company, offers another example of how some corporations downplay harmful operations by emphasizing the environmental attributes of their work. In Lebanon, Holcim has launched quarry restoration projects, claiming ecological regeneration and habitat restoration. At the global level, initiatives such as the Holcim Foundation, established in 2003, present the company as a leader in promoting a "greener, smarter, circular and more inclusive built environment," committed to accelerating transition to a net zero future.[60] The foundation's awards for sustainable construction, however, are often viewed critically for distracting from the ongoing environmental damage caused by the company's quarrying and polluting activities.

This is not to suggest that all corporate conservation initiatives in Lebanon are forms of greenwashing.[61] Rather, the overlap between environmental advocacy and corporate interests underscores the need for greater transparency and accountability. Without clear standards and credible action plans, greenwashing remains a significant challenge, undermining genuine environmental stewardship.

Environmental Governance Gaps

Environmental governance in Lebanon is fragmented and incoherent, largely due to conflicting interests and significant power imbalances. Although laws and policies for natural resource management exist, their enforcement is primarily constrained by political manipulation and biased decision-making. At the same time, data gaps, limited funding, and insufficient coordination hinder the ability of civil society organizations to participate meaningfully in environmental policymaking and in the design and implementation of alternative strategies that respond to local communities' needs.

These institutional failures translate into uneven conservation outcomes and unequal exposure to environmental harm. Weak safeguards and limited accountability mechanisms leave communities and ecosystems exposed, while powerful actors can advance projects with minimal oversight. Moreover, reliance on international funding contributes to shaping local development and conservation agendas, often privileging donor requirements and priorities over locally grounded ecological and social concerns.

a) Insufficient Safeguards Against Harmful Development

Lebanon's social and environmental safeguards are insufficient and unevenly enforced, leaving communities and ecosystems exposed to the impacts of harmful development. Although several environmental laws and policies have been adopted in the past three decades, they have not been properly implemented. For example, the EIA decree was only issued in 2012—10 years after the Environmental Protection Law (Law No. 444/2002)—and remains largely ineffective and sometimes ignored. Political interference and institutional weakness undermine oversight, particularly since the MoE, the entity responsible for the EIA, lacks sufficient financial, technical, and administrative resources.

Social safeguards are particularly insufficient, scattered across various legal texts such as labor and expropriation laws. Although Environmental and Social Impact Assessments (ESIAs), which integrate more robust social safety measures, are required for externally funded projects, their implementation can also be inconsistent and

60. Holcim Foundation website: https://www.holcim.com.lb/sustainable-development/lafargeholcim-foundation

61. For positive conservation initiatives by individual and entrepreneurial see Dayekh & Harb, 2025.

subject to political manipulation, leaving vulnerable groups at risk. Mechanisms for community participation in public hearings, a key factor for effective ESIAs, are often treated as procedural formalities, allowing powerful actors to bypass requirements.

The lack of comprehensive and consistently applied safeguards facilitates the reconfiguration of natural landscapes in ways that prioritize elite or commercial interests over community rights and ecological integrity. This inconsistency stems from both inherent flaws in the EIA system, which allow developers to commission their own assessments and undermine impartiality, and political interference, whereby powerful actors selectively ignore or bypass these safeguards. In either case, the effects can be highly detrimental. Even externally funded projects can produce undesirable outcomes without sufficient studies and public consultation. Indeed, not only public institutions but also funding organizations have at times ignored project assessment requirements. This indicates that the issue is not only weak enforcement but also a deeper structural contradiction in governance. Land developers, including municipalities and state institutions, are concerned primarily with land's financial value, linking it to economic feasibility and potential returns rather than social, environmental, or intangible values (such as historical, cultural, and symbolic significance).

A recent project that starkly illustrates the state's role in undermining its own legal framework is the officers' club in Sour (Tyre). Planned on state-owned land allocated strictly for defense purposes and located near the city's natural reserve, construction began in summer 2025 without an EIA. This sparked a public outcry and allegations of violations of environmental, cultural heritage, and public property laws (Beainy, 2025).

A similar controversy surrounded the Al-Jamal area waterfront rehabilitation project in Sour, jointly financed by the World Bank and AFD. Proceeding without a proper EIA or a Heritage Impact Assessment (HIA), the project faced opposition from the site's users, existing small businesses, heritage experts, and environmental groups (mainly the Green Southerners). Opponents warned that it would irreversibly alter a UNESCO-listed coastal landscape by introducing permanent construction on the maritime public domain. While public controversy and ministerial objections ultimately halted the project and suspended the officers' club, the future of both sites remains uncertain.[62]

This pattern of disregarding safeguard policies extends beyond municipal and coastal projects to large-scale national infrastructure initiatives. A prominent example is the World Bank-funded Bisri Dam project, intended to address chronic water shortages around Greater Beirut and Mount Lebanon. A sustained resistance campaign accusing the Bank of breaching its own fiduciary, environmental, and social safeguards ultimately led it to cancel a loan earmarked for the dam's implementation. Notably, the dam threatened to displace hundreds of families and permanently transform the productive and picturesque landscape of the Bisri Valley (Beainy, 2020). Although the project was suspended, the expropriations carried in preparation for dam construction, combined with Lebanon's escalating water problem, leave the valley's future unresolved.

b) Weak Accountability for Environmental Abuses

Weak accountability mechanisms allow environmental abuses and crimes to go unpunished. Although Lebanon's environmental protection law (Law No. 444/2022) upholds the "polluter pays" principle, enforcement is inconsistent. Political protection

62. See Mona Khechen (2023), Developer obligations, funder requirements, and safeguard challenges in Lebanon (Conference Presentation). AUB City Debates 2023: Taming the Growth Machine, The Promises and Pitfalls of Land Value Capture. https://www.youtube.com/watch?v=7tWJae_k2WY

for many violators and the absence of a comprehensive accountability system have allowed powerful and well-connected individuals to act with impunity, undermining these safeguards in practice. While the urban planning law requires investors or landowners in the quarrying and crushers sector to rehabilitate land—including site reforestation—enforcement has likewise been uneven for similar reasons.

More broadly, the territorial development system remains heavily biased toward the interests of powerful landowners and developers, with widespread exceptions and exemptions. This reality perpetuates the commodification of shared natural resources, limits equitable public access, and exacerbates risks for both communities and ecosystems. Vulnerable groups have few avenues to contest decisions affecting their built and natural environments, while powerful actors can bypass rules with minimal consequences.

Widespread encroachments on the maritime public domain illustrate how weak accountability enables long-term environmental and social harm. With the legalization of past infractions, temporary occupancies along the coast have become effectively permanent, allowing private actors to profit from monopolizing public coastal property for minimal fees. Judicial proceedings against violations have had limited impact.

c) Dependency on International Funding

Donor-supported projects often influence local agendas, sometimes creating tension between external requirements and community needs. For example, the “Territorial Planning and Development Strategy for Zahle District” project, implemented by UN-Habitat and funded by the Adaptation Fund, initially faced resentment from local authorities because of its mandated focus on Syrian refugees. Their objection can be explained by the post-Syrian war funding dynamics, given that international organizations have prioritized projects addressing refugee needs. The significant violence that accompanied the Syrian military presence in Lebanon (1976 - 2005) and the bloody confrontations in the Bekaa Valley involving the Syrian armed forces may also explain local sensitivities.

Although the benefits of integrated territorial planning and the pursuit of the common good were eventually clarified in the Zahle case, funding agendas and political concerns continued to shape discussions with relevant municipalities. The proposal of the consultant working on the project to relocate Syrians’ informal settlements from the agricultural plain to other viable locations were met by mixed reactions. The UN team overseeing the project was clearly reluctant to address resettlement proposals, reflecting implicit concerns over how such recommendations might be perceived within the politically charged context of refugee-focused funding. Their concerns were partially alleviated once the consultant clarified that these recommendations were strictly grounded in sustainable land-use planning principles—specifically the need to redirect urban expansion away from fertile agricultural land and areas prone to flood risk risk—rather than targeting any group based on nationality, socioeconomic status, or legal standing.[63]

While not linked to the Zahle territorial planning project mentioned above, the recent demolition of several tented settlements along the Litani River in Zahle —carried out as part of environmental protection measures by the Litani River Authority—highlights the social consequences of selective enforcement. The failure to provide alternative housing raises critical questions about the responsibilities of both the Lebanese

63. Based on the author’s direct engagement in the project as a member of the Consultant’s team.

government and international actors, particularly the UN Refugee Agency (UNHCR) (El Khechen, 2025). While this case is specific, it illustrates how environmental objectives, when combined with unclear or incomplete donor and organizational commitments, can disproportionately affect vulnerable populations and expose gaps in social safeguards.

The tension between environmental goals and social responsibility highlights a broader challenge in Lebanon's territorial development, where reliance on international funding creates dependency, shifts priorities, and undermines locally-grounded conservation efforts. The country's ongoing crisis has further shifted donor agendas, increasingly favoring short-term objectives designed to meet donor benchmarks, while also influencing which geographic areas, communities, and sectors receive attention. Although some ecosystem protection projects have received external funding, their long-term sustainability remains uncertain. This is partly because allocated budgets often fail to account for the management structures required to maintain and sustain these projects over time.

d) Misalignment between External Conservation Agendas and Local Development Priorities

While donor-financed pilot initiatives may introduce valuable practices, without strong government ownership and citizen engagement, external funding risks producing fragmented interventions that are difficult to scale or sustain beyond project cycles. In addition to these operational challenges, funding realities can also generate social and ecological tensions, pitting local communities who rely directly on ecosystems for their livelihoods against donor- or government-driven approaches that frame environmental action primarily as a vehicle for economic growth, treating nature as a marketable asset.

Development projects, including green initiatives, can conflict with local communities' values and conservation priorities, provoking resistance. In places like Jabal Akroum, wind energy projects faced opposition because their proposed locations conflicted with lands closely tied to local land-use practices, livelihoods, and cultural identity. Beyond issues of tenure insecurity, this resistance reveals a deeper clash between national development goals and local people's relationship to land.

Similar tensions have emerged in Ebel Al-Saqi in southern Lebanon, where villagers view their agricultural landscapes as central to both their livelihood and cultural identity. They expressed surprise that international funding prioritized non-productive communal landscapes over agricultural lands that embody rural heritage and sustain most households. For these communities, immediate needs—such as pest control, crop marketing, and the protection of agricultural livelihoods—take precedence over tourism-driven conservation and the protection of natural areas designed primarily for visitors (Makhzoumi, 2009). Like in Akkar, this example illustrates how local communities' environmental priorities often diverge from externally driven conservation agendas, highlighting a form of environmentalism that treats land, nature resources, and the environment as essential to human subsistence rather than as economic assets subject to exchange or commodification.

6. Conclusion and Pathways Forward

Territorial planning in Lebanon is undermined by incoherent guiding visions, fragmented land governance, weak enforcement of land-use regulations, and politicized decision-making that favors elite interests over the public good. This systemic failure has fueled environmental degradation, biodiversity loss, and the erosion of the country's public and communal lands and resources. Meanwhile, regulatory flaws have facilitated land enclosure and resource capture by powerful groups.

Either way, the lack of integrated planning frameworks and coherent governance structures has obstructed conservation efforts—especially landscape-scale strategies aimed at protecting and restoring ecological corridors and networks. Lebanon's current compounded crises risk amplifying these patterns. In particular, fiscal collapse and proposals for privatization of state-owned assets, including land, threaten to accelerate resource grabbing and deepen social inequalities. Likewise, post-war reconstruction and development plans could enable further dispossession under the pretexts of border security, energy transition, and job creation. The climate crisis and the increasing stress on water resources exacerbate these challenges.

Amid these escalating pressures, there is an urgent need to rethink land governance and territorial planning. Three overarching guiding directions are advanced here, not as fixed prescriptions but rather as starting points for policy dialogue aimed at recovering and reaffirming the social function of land. Together, these three tracks are intended to inform the development of a collective national vision for territorial planning and environmental stewardship. They emphasize integrated landscapes, shared management of the commons, and human responsibility toward nature and the environment.

Overarching Guiding Directions

a) One Territory, One Lebanon

Lebanon's political sectarianism and fragmented administrative structures have long constrained effective territorial planning, reinforcing divisions between regions, urban and rural areas, and communities. The NPMPLT emphasized the need to protect the country's unity, promote balanced regional development, and rationalize the use of resources. These goals remain as relevant today as they were 20 years ago.

Regional political upheavals—particularly ongoing Israeli assaults on Lebanon and the threat of continued occupation of parts of the south—bring the question of national unity to the forefront. In 1920, Greater Lebanon was created by incorporating historic Mount Lebanon within its natural geographic and economic extensions: the coastal plains, the fertile Bekaa Valley, and surrounding districts. The aim was to form a state that was coherent in terms of resources, culture, and strategic depth, with borders reflecting historical patterns of settlement and governance rather than arbitrary lines.

Similarly, any contemporary territorial planning strategy must prioritize national unity while recognizing that the notion of territory is a social construct produced by shared histories, values, resources, and needs, rather than by artificial political and administrative borders. This framing calls for a shift from narrowly focused and locally centered planning toward cross-sectoral, multi-scalar approaches that extend beyond the boundaries of individual municipalities and align with broader national objectives. For instance, reclaiming the coastal strip as a continuous public domain, as well as rehabilitating and restoring river corridors, could be advanced as national-scale conservation and development projects.

By treating the landscape itself as a connective tissue linking the country's various regions, territorial planning can help bridge urban-rural divides, enhance coordination between leading and lagging economic areas.

Viewed this way, planning is not merely a technical exercise but also a tool for unifying the country around shared ecological, social, and economic goals (Campbell, 2013). By treating the landscape itself as a connective tissue linking the country's various regions, territorial planning can help bridge urban-rural divides, enhance coordination between leading and lagging economic areas. Accordingly, spatial development strategies should build on the historical, geographic, socio-economic, and cultural specificities of each area while ensuring the protection and continuity of forests, valleys, rivers, and coastal zones across the national territory.

b) United for the Land that Holds Us

Lebanon's landscapes and natural commons (forests, water, beaches, air) form a vital basis for collective life, yet they remain under threat. Conventional top-down approaches have proven insufficient to protect them, as they often overlook the complex realities, knowledge, and diverse interests of local communities. To address these challenges, Lebanon must embrace principles of co-governance and co-production.

Co-governance refers to institutional arrangements through which public authorities, local communities, and civil society actors share decision-making authority and responsibility for the management of common resources, while co-production emphasizes the joint design, implementation, and stewardship of policies and projects by these actors. Originally developed for urban commons (Foster & Iaione, 2019), these principles are highly relevant for Lebanon's territorial planning. They can support a development model that enshrines democracy in decision-making and promotes shared responsibility for the care of land, water, forests, and other ecological commons. Framing territorial planning through the lens of the commons and shared resources also helps reestablish the relationship between society and nature, reconnecting humans with the ecosystems they inhabit and supporting the sustenance of both human and non-human life (Escobar, 1995).

This collaborative approach entails moving beyond narrow views that equate territorial development with economic advancement and gains. Instead, development must be understood as a dynamic process shaped by politics, rights, livelihoods, and knowledge, often pulling in different directions (Hamdi, 2004). Inclusive planning processes that bring together local communities, municipalities, civil society organizations,

professional syndicates, academics, and public institutions around shared concerns, are therefore essential. Beyond a shared guiding vision, the effectiveness of this collective planning process requires pooling resources, coordinating action, and balancing the ecological, social, cultural, and economic dimensions of development.

By cultivating broad coalitions and dialogue across divides, Lebanon can begin to confront entrenched power asymmetries, strengthen stewardship of its commons, and open pathways toward a more just and sustainable territorial future.

By cultivating broad coalitions and dialogue across divides, Lebanon can begin to confront entrenched power asymmetries, strengthen stewardship of its commons, and open pathways toward a more just and sustainable territorial future. Working together in this way is not about erasing differences or imagining a false solidarity but about cultivating a “both and also” logic that acknowledges diverse interests and perspectives while still seeking common ground for collective action (Soja, 1996).

c) Guarding Nature, Not Owning It

Lebanon’s forests, rivers, mountains, and seascapes face mounting pressures from chaotic urban expansion, extraction, pollution, and climate-related disruptions. Recent conservation models have often turned ecological protection into luxury ventures and enclosed green islands. While these initiatives claim to safeguard ecosystems and generate economic opportunities, they frequently reinforce exclusionary development, restrict traditional land use, and undermine community rights.

In a context that relies on land speculation and commodification as engines of economic growth, conservation without robust regulatory safeguards risks becoming a vehicle for resource grabs. This growth mindset can reproduce colonial power relations that marginalize local communities and ignore their knowledge, leading to disputes over land use and access to resources. Treating land, water, and biodiversity primarily as commodities for speculation or extraction not only threatens ecological integrity, but also undermines the livelihoods associated with them.

The role of territorial planning in mediating land-use conflicts and addressing environmental degradation becomes even more crucial, especially as conservation becomes more intertwined with eco-tourism, real estate markets, and international funding flows and agendas. Stewardship—not commodification—must anchor just and effective conservation. Some anthropological frameworks underscore that humans are not owners of nature but custodians, dependent on ecological continuity for survival (Descola, 2005). Accordingly, effective conservation is less about granting legal rights to nature (Stone, 1972)—a highly debated concept—and more about a paradigm shift in our perspective toward nature protection: from ownership to guardianship, from exclusion to participation, and from market-centric to socially and culturally grounded strategies.

From this viewpoint, conservation is not merely a governance challenge but also an ethical obligation rooted in our responsibility toward ecosystems. Integrating nature stewardship into territorial planning offers a pathway beyond profit-oriented conservation toward an environmental future that is equitable, ecologically sound, and climate resilient. At the policy level, this shift requires balancing anthropocentric and

ecocentric perspectives, which respectively stress people's ethical responsibilities toward nature and the intrinsic value of ecosystems and non-human life. In practice, this entails enacting legal and institutional reforms, including stronger protections against environmental crimes and harms, social safeguards, anti-corruption measures, and inclusive governance mechanisms that actively engage local actors and marginalized communities.

Integrating nature stewardship into territorial planning offers a pathway beyond profit-oriented conservation toward an environmental future that is equitable, ecologically sound, and climate resilient.

Closing Note

Colonial planning legacies that dispossessed local communities persist in Lebanon today, albeit in new forms. Powerful actors continue to exert substantial influence over territorial planning decisions, often tilting them in ways that facilitate elite control over land and resources. As conservation becomes increasingly entangled with capital accumulation—through luxury eco-tourism, real estate development, and green investment schemes—the risk of reproducing exclusionary and extractive development logics grows. Accordingly, there is an urgent need for alternative development approaches grounded in governance reforms, secure land rights, and inclusive economic models that prioritize environmental protection and social justice.

While this report has focused primarily on territorial planning and environment protection at the scale of landscapes, institutions, and policy frameworks, it recognizes that environmentalism is plural. In particular, the environmentalism of the poor—rooted in everyday struggles over land, resources, and livelihoods—offers a critical lens for understanding how marginalized communities actively defend, steward, and produce knowledge about their environments in the face of exclusionary development and conservation models. Although not a central focus of this report, grassroots perspectives and lived realities warrant greater attention in future research and policy dialogue.

Strategies and mechanisms for protecting nature also require deeper examination. Such approaches cannot be limited to technical solutions. They must encompass multi-sectoral and multi-scalar pathways capable of confronting entrenched power asymmetries and adapting to local contexts marked by deep social and spatial inequalities. Drawing on successful experiences, tools and mechanisms that safeguard nature while preserving its public value—including the intrinsic, cultural, and collective value of ecosystems—should be explored and critically assessed. Strengthening social and environmental safeguards, securing land tenure for local communities, and ensuring that conservation initiatives do not displace those who depend on the land remain critical priorities. Only under these conditions can territorial planning become a means of achieving environmental futures that are just, inclusive, and resilient.

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Appendices

APPENDIX 1: A NOTE ON METHODOLOGY

Field investigations comprising semi-structured interviews, round table discussions, focus groups, and interactive workshops were primarily conducted within the framework of other projects in which the author played a key role, including:

- ◊ Territorial Planning and Development Strategy for Zahle District—part of the broader Resilient Water Solutions Against Climate Change project (UN-Habitat)
- ◊ Development of Detailed Management Plans for the Nature Reserves in Lebanon (UNDP)
- ◊ Unions of Municipalities as Enablers of Local Economic Development (UN-Habitat/ UNDP)
- ◊ Strategic Analysis for the Development of the South of the Litani River's Area (AFD)
- ◊ Urban Projects Finance Initiative for Lebanon (AFD and EIB)

While this report is independent from the above-mentioned projects, the author's participation in them provided direct exposure to relevant cases and experiences, which helped inform and enrich the analysis. Relevant examples and accounts have been integrated into the report. Names of some persons met are withheld to protect confidentiality.

To address information gaps, the author conducted semi-structured interviews with informed staff in the public sector during the course of writing this report, complemented by targeted discussions and exchanges with colleagues and activists involved in related projects, namely:

- ◊ Mona Bitar, Engineer in Charge in the Urban Studies Division at DGUP, May 2025.
- ◊ Sabine El-Khazen, Environmental Expert at MORES (Management of Resources and Environmental Solutions), July 2025.
- ◊ Sami Feghali, Former Head of Land Use Planning Department at CDR, July 2025.
- ◊ Antoine Kreidy, Independent Architect and Urban Planner, September 2025.
- ◊ Khaled Sleem, President of Lebanon Reforestation Initiative, July 2025.
- ◊ Serge Yazigi, Independent Urban Planning Expert, March 2025.
- ◊ Hisham Younes, President of the Green Southerners, March 2025.

The comments and feedback provided by colleagues during a closed roundtable discussion held in November 2025 to present the report's key findings also helped refine its content and address certain gaps.

APPENDIX 2: PROTECTED NATURAL AREAS IN LEBANON

#	Site Name	Year	Legal Instrument	Category
-	Cedars in Bcharre, Deir Al-Qalaa site, Bolonia Forest, Al-Mourouj Oak site, Horsh Beirut Site, Al Yam-mouneh Lake, Natural Bridge on Al-Laban River, Baalbek historical monuments	1942	Decree No. 434/1942	Natural sites and monuments
1	Palm, Sanany and Ramkeen Islands	1992	Law No. 121 (9 Mar 1992)	National nature reserve
2	Horsh Ehden	1992	Law No. 121 (9 Mar 1992)	National nature reserve
3	Karm Chbat Forest	1995	Ministerial Decision No. 14 (6 Oct 1995)	National nature reserve
4	Al-Shouf Cedars	1996	Law No. 532 (24 Jul 1996)	National nature reserve; biosphere reserve component (2005)
5	Tyre Coast	1998	Law No. 708 (5 Nov 1998)	National nature reserve; coastal Ramsar/SPAMI
6	Tannourine Cedar Forest	1999	Law No. 9 (20 Feb 1999)	National nature reserve
7	Yammouneh	1999	Law No. 10 (20 Feb 1999)	National nature reserve
8	Bentael	1999	Law No. 11 (20 Feb 1999)	National nature reserve
9	Mashaa Chnaniir	2010	Law No. 122 (29 Jul 2010)	National nature reserve
10	Wadi Al Houjeir	2010	Law No. 121 (23 Jul 2010)	National nature reserve
11	Kafra	2011	Law No. 198 (18 Nov 2011)	National nature reserve
12	Ramiyah	2011	Law No. 199 (18 Nov 2011)	National nature reserve
13	Debl	2011	Law No. 200 (18 Nov 2011)	National nature reserve
14	Beit Leef	2011	Law No. 201 (18 Nov 2011)	National nature reserve
15	Jaj Cedars Forest	2014	Law No. 257 (15 Apr 2014)	National nature reserve
16	Mount Hermon (Jabal Al-Sheikh)	2020	Law No. 170 (14 May 2020)	National nature reserve
17	Abbasieh Coast (extension)	2020	Law No. 170 (14 May 2020)	National nature reserve

#	Site Name	Year	Legal Instrument	Category
18	Nmayriyeh	2020	Law No. 169 (14 May 2020)	National nature reserve
19	Shouf Cedar Biosphere Reserve	2005	UNESCO Biosphere Reserve designation	
20	Jabal Al Rihane Biosphere Reserve	2007	UNESCO Biosphere Reserve designation	
21	Jabal Moussa Biosphere Reserve	2009	UNESCO Biosphere Reserve designation	
22	Aammiq Wetland (privately-owned)	1994	Internationally Recognized Important Bird Area	
		1999	Ramsar site	
		2005	Part of UNESCO Shouf Biosphere Reserve (SBR)	
-	Several areas (including forests and river streams	Starting 1997	Natural sites protected by Decision of the Ministry of Environment	
-	Several forests and Hima sites	Starting 1991	Sites declared by Decision of the Ministry of Agriculture	
-	Several villages, natural landscapes and historical monuments	Starting 1993	Tourist sites declared by Decision of the Ministry of Tourism	

Source: Data compiled by the author from the Ministry of Environment (2006, Protected Areas in Lebanon) and information produced by MORES team (2023, unpublished report).

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