

# The Coastal Public Domain in Lebanon: Legal Conflicts, Spatial Encroachments, and Strategies for Sustainable Coastal Management

Dr. Mohamad H. Jichi

Assistant Professor - Lebanese University – Faculty of Fine arts and Architecture

**Abstract-** The Lebanese coastline represents one of the country's most valuable territorial and environmental assets, providing important opportunities for economic development, tourism, public recreation, and environmental protection. Legally defined as part of the maritime public domain, coastal areas are intended to remain public property accessible to all citizens. However, despite the existence of legal frameworks regulating coastal land use, Lebanon's coastline has experienced significant transformation over the past decades due to rapid urbanization, tourism development, and weak regulatory enforcement. This study examines the current condition of the coastal public domain in Lebanon and analyzes the major spatial, legal, environmental, and governance challenges affecting its management. The research adopts a qualitative analytical approach based on the review of legal documents, policy reports, and international coastal management practices. Particular attention is given to the impacts of illegal coastal encroachments, privatization of shoreline areas, loss of public access to the sea, and environmental degradation of coastal ecosystems. The findings reveal that the Lebanese coastal zone suffers from fragmented governance structures, insufficient enforcement of maritime public domain regulations, and the absence of an integrated coastal planning strategy. As a result, large segments of the coastline have become inaccessible to the public and environmentally degraded. The study highlights the importance of adopting Integrated Coastal Zone Management (ICZM) principles to improve coastal governance in Lebanon. It proposes a set of planning and policy recommendations including the establishment of a national coastal management strategy, strengthening legal enforcement mechanisms, implementing coastal zoning regulations, restoring public access to the sea, and promoting sustainable coastal tourism development. By reorganizing the coastal public domain through integrated planning and governance reforms, Lebanon can transform its coastline into a sustainable national resource that supports economic growth, environmental protection, and social equity.

**Keywords:** Maritime Public Domain; Coastal Planning; Coastal Governance; Integrated Coastal Zone Management; Urban Waterfront Development; Public Coastal Access; Lebanon.

## I. INTRODUCTION

### Background of Coastal Development in Lebanon

Lebanon is a small Eastern Mediterranean country characterized by a narrow coastal plain located between the Mediterranean Sea and the Mount Lebanon mountain range. Despite its limited territorial area of approximately 10,452 km<sup>2</sup>, the country possesses a strategically important coastline extending for approximately 220–225 km from Aarida in the north to Naqoura in the south (Ministry of Environment, 2015; World Bank, 2020).

Historically, the Lebanese coast has played a central role in the country's economic and urban development. Major cities such as Beirut, Tripoli,

Saida, and Tyre developed along the coast as strategic maritime centers where trade, fishing, and port activities were concentrated. Over time, the coastal zone became the most densely populated and economically dynamic region of the country. Urban expansion during the second half of the twentieth century led to significant demographic concentration along the coastline, where a large proportion of Lebanon's population and economic activity is currently located (UN-Habitat, 2016).

From a legal perspective, the Lebanese coastline forms part of the Maritime Public Domain, a category of public property that belongs to the state and is intended for collective use. The concept was legally defined under Decision No. 144/S issued in 1925,

which states that the seashore, sandy beaches, coastal rocks, and areas reached by the highest winter waves constitute public property that cannot be privately owned (Decision 144/S, 1925). This legal framework establishes the principle that coastal areas are part of the public domain and must remain accessible to the population.

The principle underlying the maritime public domain is that the coastline represents a collective national resource that must serve public interests such as recreation, fishing, environmental protection, and navigation. While limited occupation of the maritime public domain can be authorized through temporary permits, such occupation must not undermine the public character of the coastline (Legal Agenda, 2018).

However, despite the existence of this legal framework, Lebanon's coastal areas have experienced significant transformation over the past decades. Rapid urbanization, tourism development, and real estate speculation have led to extensive occupation of coastal land. Numerous private resorts, hotels, marinas, and real estate developments have extended into areas legally belonging to the maritime public domain (Ministry of Environment, 2015; World Bank, 2020).

These developments have significantly altered the spatial structure of the Lebanese coastline. Large portions of the coastal strip have been privatized or occupied by private developments, limiting public access to the sea and transforming many coastal areas into controlled private spaces (NAHNOO, 2017). According to environmental and urban development reports, a substantial percentage of Lebanon's coastline is currently affected by illegal or semi-legal encroachments on public maritime property (Ministry of Environment, 2015).

The growing pressure on coastal areas raises important concerns regarding environmental sustainability, spatial planning, and social equity. Coastal ecosystems have been affected by pollution, land reclamation, and uncontrolled construction, while public access to the sea has become

increasingly restricted in many urban coastal areas (World Bank, 2020).

As a result, the management of the coastal public domain has become a critical issue for planners and policymakers in Lebanon. Ensuring sustainable development of the coastline requires a balanced approach that integrates urban planning, environmental protection, and public access rights.

### Research Problem

Despite the legal classification of the Lebanese coastline as part of the maritime public domain, the practical management of coastal areas has been characterized by weak enforcement and fragmented governance. Over the past decades, numerous violations of coastal regulations have occurred, resulting in extensive encroachments on public maritime property (Ministry of Environment, 2015).



Figure 1. Conceptual Framework of Coastal Public Domain Issues in Lebanon

Source: Author (2026), based on Ministry of Environment (2015), World Bank (2020), and European Commission (2011).

Many coastal developments have occupied public shoreline areas through temporary permits that have effectively become permanent over time. In some cases, large-scale private developments have extended into the sea through land reclamation projects, further reducing public access to coastal spaces (Legal Agenda, 2018).

These developments reflect broader structural challenges in Lebanon's spatial planning system, including weak institutional coordination, limited regulatory enforcement, and the absence of a comprehensive coastal management strategy (World Bank, 2020).

Consequently, Lebanon faces significant challenges in preserving the coastal public domain while accommodating economic development and urban growth. Addressing these challenges requires a comprehensive understanding of the legal, spatial, and governance dimensions of coastal management.

### **Research Objectives**

The primary objective of this research is to analyze the current condition of the coastal public domain in Lebanon and to explore strategies for improving its governance and spatial organization.

#### **More specifically, the research aims to:**

- examine the legal and institutional framework regulating the coastal public domain in Lebanon;
- identify the major spatial and environmental challenges affecting coastal areas;
- analyze the impact of coastal encroachments on public access and environmental sustainability;
- review international experiences in coastal management;
- Propose planning and governance strategies for the sustainable management of Lebanon's coastal public domain.

### **Research Questions**

**This study addresses the following research questions:**

1. What is the legal and institutional framework governing the coastal public domain in Lebanon?

2. What are the main spatial and environmental challenges affecting Lebanon's coastal zone?
3. How have coastal encroachments affected public access and environmental sustainability?
4. What planning and governance strategies can be implemented to improve the management of the coastal public domain in Lebanon?

### **Significance of the Study**

The Lebanese coastline represents one of the country's most important environmental and economic resources. Proper management of the coastal public domain has the potential to support sustainable tourism, environmental protection, public space development, and economic growth (UN-Habitat, 2016).

However, decades of uncontrolled coastal development have weakened the public character of the Lebanese coastline and reduced the availability of accessible public spaces along the sea. Addressing these issues requires integrated planning strategies that combine legal enforcement, spatial planning, and environmental protection (Ministry of Environment, 2015).

By analyzing the challenges affecting the coastal public domain and proposing strategic solutions, this study contributes to the broader discussion on sustainable coastal management and urban planning in Lebanon.

## **II. CONCEPTUAL FRAMEWORK OF THE COASTAL PUBLIC DOMAIN**

### **Definition of the Coastal Public Domain**

The concept of the Coastal Public Domain (CPD) refers to coastal areas that legally belong to the state and are intended for public use and environmental protection. In many legal systems, coastal areas are considered part of the public domain, meaning that they cannot be privately owned and must remain accessible to society as a collective resource (Scovazzi, 2011).

Coastal zone management policies aim to regulate human activities along the shoreline while ensuring the protection of coastal ecosystems and

maintaining public access to coastal resources (Clark, 1996).

The coastal public domain generally includes the shoreline, beaches, coastal waters, and the strip of land directly adjacent to the sea that is affected by tidal movements or marine processes. These areas are traditionally protected because of their ecological importance and their social value as spaces for recreation, fishing, and navigation (Cicin-Sain & Knecht, 1998).

The concept is rooted in the principle that certain natural resources possess collective value and therefore must remain under public ownership and state protection. Coastal areas provide ecosystem services, support economic activities such as tourism and fisheries, and contribute to the cultural identity of coastal societies (Barragán Muñoz, 2014).

In the context of Mediterranean countries, the coastal public domain usually includes several spatial components:

- the shoreline and beaches,
- the area between the highest winter wave and the sea,
- coastal waters and seabeds,
- natural coastal ecosystems such as dunes and wetlands,
- and corridors ensuring public access to the sea.

The protection of these areas is essential to prevent uncontrolled privatization and to guarantee equitable access to coastal resources (European Commission, 2011).

### **Coastal Public Domain in International Law**

The concept of coastal public domain is closely linked to international principles governing the use and protection of coastal zones. Although international law primarily regulates maritime spaces through instruments such as the United Nations Convention on the Law of the Sea (UNCLOS), many international frameworks also emphasize the importance of sustainable coastal management (United Nations, 1982).

The United Nations Convention on the Law of the Sea establishes legal frameworks for the

management of maritime zones, including territorial waters, exclusive economic zones, and continental shelves. While UNCLOS focuses primarily on maritime jurisdiction, it also emphasizes the responsibility of coastal states to protect marine environments and ensure sustainable use of marine resources (United Nations, 1982).

In addition to UNCLOS, international environmental frameworks have contributed to the development of coastal management principles. The Integrated Coastal Zone Management (ICZM) approach emerged in the 1990s as a strategy for balancing environmental protection, economic development, and social needs in coastal regions (Cicin-Sain & Knecht, 1998).

Within the Mediterranean region, coastal management has been further strengthened through the Barcelona Convention and its Integrated Coastal Zone Management Protocol, which encourages member states to adopt sustainable planning practices and protect coastal ecosystems (UNEP/MAP, 2008).

### **These international frameworks emphasize several key principles:**

- protection of coastal ecosystems,
- sustainable use of marine and coastal resources,
- public participation in coastal governance,
- integrated planning between land and sea.

These principles have influenced national coastal policies in many Mediterranean countries.

### **Principles of Public Coastal Management**

Effective management of the coastal public domain is based on a set of fundamental principles designed to ensure sustainability, public accessibility, and environmental protection.

#### **Public ownership and access**

One of the most important principles of coastal public domain management is the recognition of coastal areas as public goods that must remain accessible to all citizens. This principle prevents the privatization of beaches and ensures that coastal spaces can be used for recreation, cultural activities, and social interaction (Barragán Muñoz, 2014).

Public access to the coastline is widely recognized as a fundamental aspect of coastal governance in many countries. Ensuring public access corridors and coastal promenades has become a common planning strategy in coastal cities (European Commission, 2011).

### **Environmental protection**

Coastal ecosystems are among the most productive and sensitive environments on Earth. Wetlands, dunes, and marine habitats support biodiversity and play an essential role in protecting coastlines from erosion and climate impacts (Nicholls & Cazenave, 2010).

For this reason, coastal management policies often include strict regulations aimed at limiting construction in sensitive coastal areas and protecting natural habitats.

### **Sustainable development**

Coastal areas are also important economic zones where tourism, fisheries, maritime transport, and recreation activities take place. Sustainable coastal management seeks to balance these economic activities with environmental protection and social equity (Cicin-Sain & Knecht, 1998).

### **Integrated governance**

Because coastal zones involve multiple sectors and institutions, effective management requires coordinated governance mechanisms. Integrated coastal management approaches aim to coordinate policies related to urban planning, environmental protection, economic development, and infrastructure (European Commission, 2011).

### **Integrated Coastal Zone Management (ICZM)**

Integrated Coastal Zone Management (ICZM) has emerged as one of the most widely adopted frameworks for managing coastal areas worldwide. ICZM is defined as a continuous and dynamic process through which decisions are made for the sustainable use, development, and protection of coastal areas (Cicin-Sain & Knecht, 1998).

The main objective of ICZM is to overcome the fragmentation that often characterizes coastal

governance. Traditional coastal management approaches often treat sectors such as tourism, fisheries, urban planning, and environmental protection separately. ICZM seeks to integrate these sectors within a unified planning framework.

### **According to the European Commission (2011), ICZM is based on several key principles:**

- long-term perspective in coastal planning,
- ecosystem-based management approaches,
- participation of stakeholders and local communities,
- coordination between different levels of government.

ICZM has been widely adopted across Europe and the Mediterranean region as a mechanism for improving coastal governance and protecting coastal ecosystems. The Mediterranean ICZM Protocol adopted under the Barcelona Convention represents one of the most comprehensive regional frameworks for coastal management (UNEP/MAP, 2008).

For countries such as Lebanon, where coastal pressures are increasing due to urbanization and tourism development, ICZM provides a useful conceptual framework for reorganizing coastal governance and ensuring sustainable use of the coastal public domain.

## **III. LEGAL AND INSTITUTIONAL FRAMEWORK OF THE COASTAL PUBLIC DOMAIN IN LEBANON**

### **Historical Evolution of Coastal Legislation in Lebanon**

The legal framework governing the coastal public domain in Lebanon has its origins in Ottoman legislation that regulated public property and coastal land use. During the late Ottoman period, coastal areas were considered part of the public domain of the state, reflecting the principle that natural resources such as shorelines and maritime zones should remain accessible for collective use (Scovazzi, 2011).

Following the establishment of the French Mandate in Lebanon in the early twentieth century, the legal structure governing coastal areas was

formalized through several regulatory decisions. The most significant legal instrument was Decision No. 144/S issued on June 10, 1925, which defined the maritime public domain and established the legal framework for its management (Decision 144/S, 1925).

This legislation introduced a clear definition of coastal public property and prohibited its privatization. The decision classified the shoreline, sandy beaches, coastal rocks, and areas reached by the highest winter waves as part of the maritime public domain, thereby ensuring that these areas remained under state ownership and accessible to the public.

Over the decades, additional laws and regulatory frameworks have been introduced to regulate environmental protection, urban planning, and coastal development. However, despite these legal instruments, enforcement mechanisms have often been weak, allowing numerous violations and encroachments on coastal public property (Ministry of Environment, 2015).

### Decision 144/S (1925) and the Definition of Maritime Public Domain

Decision No. 144/S remains the cornerstone of coastal legislation in Lebanon. This decision defines the maritime public domain as the coastal area that includes:

- the seashore and beaches,
- the coastal strip affected by the highest winter waves,
- coastal rocks and natural formations along the shoreline,
- and maritime waters adjacent to the coast.

According to this legal framework, these areas constitute public property that cannot be privately owned or permanently occupied. The law permits only temporary occupation permits, which may be granted under specific conditions when the use of coastal public property serves public interest or economic activities compatible with coastal management (Decision 144/S, 1925).

However, in practice, many temporary permits have evolved into long-term or permanent occupations.

Resorts, private beach clubs, and tourism developments have often expanded into maritime public property, resulting in extensive privatization of the coastline (Legal Agenda, 2018).

Table 1. Timeline of Coastal Governance and Development in Lebanon

Period	Coastal Development Characteristics
1925	Decision 144/S defining maritime public domain
1950–1975	Early tourism and coastal resorts
1975–1990	Weak governance during civil war
1990–2010	Rapid privatization of coastline
2010–present	Civil society campaigns and governance debates

**Source:** Author, based on Decision 144/S (1925); Ministry of Environment (2015); Legal Agenda (2018); World Bank (2020).

These developments have significantly reduced public access to coastal areas and raised important questions regarding the effectiveness of Lebanon's coastal governance system.

### Environmental and Urban Planning Regulations

In addition to the legislation regulating the maritime public domain, several environmental and urban planning laws influence coastal management in Lebanon.

One of the most important legislative frameworks is Environmental Protection Law No. 444 issued in 2002, which established the general principles for environmental protection and sustainable development in Lebanon (Ministry of Environment, 2015). This law emphasizes the importance of protecting natural resources, including coastal ecosystems, from pollution and environmental degradation.

Urban planning regulations also play an important role in coastal development. The General Directorate of Urban Planning (DGUP) is responsible for regulating land use and issuing building permits in accordance with national planning policies. However, the absence of a comprehensive coastal zoning strategy has limited the effectiveness of

planning regulations in controlling coastal development (UN-Habitat, 2016).

In many cases, coastal development projects have been approved through exceptional decrees or special permits that bypass conventional planning procedures. This situation has contributed to the rapid transformation of coastal landscapes and increased pressure on the maritime public domain.

### Institutional Responsibilities for Coastal Management

Coastal governance in Lebanon involves multiple institutions with overlapping responsibilities. The management of the maritime public domain is primarily supervised by the Ministry of Public Works and Transport, which is responsible for regulating the occupation of coastal public property and issuing permits for maritime activities.

The Ministry of Environment plays an important role in monitoring environmental impacts related to coastal development and pollution. Environmental impact assessments are often required for major coastal infrastructure and tourism projects.

The Council for Development and Reconstruction (CDR) is responsible for implementing large infrastructure projects, including coastal highways, ports, and waterfront development initiatives. These projects often have significant implications for coastal land use and environmental conditions.

At the local level, municipalities participate in regulating urban development and managing public spaces along the coastline. However, their authority is often limited by national-level planning and regulatory institutions.

The General Directorate of Urban Planning (DGUP) is responsible for land-use planning and zoning regulations. Nevertheless, coordination between planning authorities and coastal management institutions remains limited, resulting in fragmented governance of coastal areas.

The institutional relationships involved in coastal governance are illustrated in Figure 2, which

summarizes the main actors responsible for managing the coastal public domain in Lebanon.

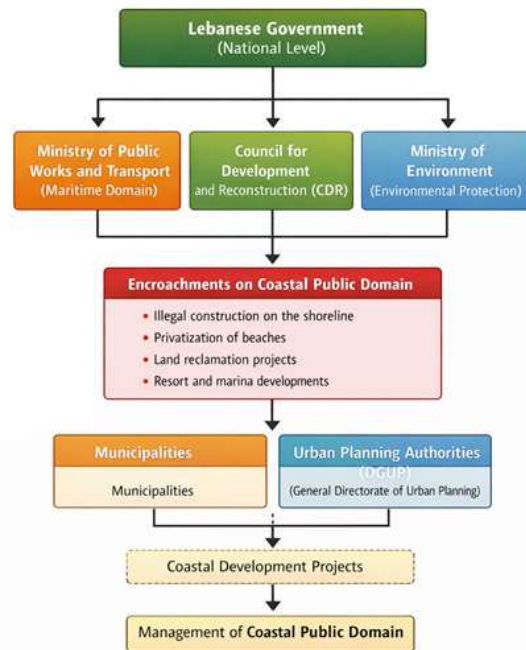


Figure 2. Institutional Structure of Coastal Governance

**Source:** Author, based on Ministry of Environment (2015) and World Bank (2020).

### Challenges in Coastal Governance

Despite the existence of legal frameworks and multiple institutional actors, coastal governance in Lebanon faces significant challenges.

One of the main issues is institutional fragmentation, where different governmental agencies exercise authority over coastal areas without sufficient coordination. This fragmentation often leads to inconsistent regulatory decisions and weak enforcement of coastal protection policies (World Bank, 2020).

Another major challenge is the widespread presence of illegal encroachments on the maritime public domain. Numerous coastal developments occupy public property through permits that have exceeded their legal scope or duration (Legal Agenda, 2018).

In addition, the absence of an integrated national coastal management strategy has limited the ability of planning institutions to regulate coastal development effectively.

Addressing these challenges requires strengthening the institutional framework governing coastal areas and adopting integrated coastal management approaches that coordinate environmental protection, spatial planning, and economic development.

#### **IV. SPATIAL CHARACTERISTICS OF THE LEBANESE COAST**

##### **Geographic Overview of the Lebanese Coastline**

Lebanon is characterized by a relatively narrow coastal plain that stretches along the eastern Mediterranean Sea between the Syrian border in the north and the Israeli border in the south. The Lebanese coastline extends for approximately 220–225 km, forming one of the most densely developed coastal zones in the Eastern Mediterranean region (Ministry of Environment, 2015; World Bank, 2020).

The coastal plain varies significantly in width along the country. In some areas, particularly around Beirut and Tripoli, the coastal plain expands into wider urbanized zones, while in other regions it becomes extremely narrow as the Mount Lebanon mountain range approaches the sea. This unique geographical configuration has historically influenced settlement patterns and transportation networks along the coast (UN-Habitat, 2016).

Several major rivers, including the Nahr el-Kalb, Nahr Ibrahim, Nahr Litani, and Nahr el-Bared, flow from the Mount Lebanon range toward the Mediterranean Sea. These river valleys historically created natural corridors for urban expansion and agricultural activities along the coastal plain.

The Lebanese coastline also includes a variety of natural coastal features such as sandy beaches, rocky shores, small bays, and coastal cliffs. However, many of these natural landscapes have been significantly altered by urban development and infrastructure

projects over the past decades (Ministry of Environment, 2015).

##### **Urbanization Patterns along the Coast**

Urbanization along the Lebanese coast has accelerated significantly since the mid-twentieth century. Coastal cities historically served as economic gateways connecting Lebanon with regional and international markets. As a result, urban development has increasingly concentrated along the coastal strip.

Today, the majority of Lebanon's population lives within relatively short distances from the coastline. Major metropolitan areas such as Greater Beirut, Tripoli, Saida, and Tyre form a continuous urban corridor along large portions of the coast (World Bank, 2020).

Rapid population growth, combined with economic concentration in coastal cities, has contributed to the expansion of residential areas, commercial developments, and infrastructure projects along the shoreline. The development of transportation networks such as the coastal highway has further reinforced this urban corridor, facilitating mobility and encouraging real estate development in coastal areas.

However, this process has often occurred in the absence of comprehensive spatial planning policies. The lack of coordinated urban development strategies has resulted in urban sprawl, fragmented coastal landscapes, and the gradual occupation of natural coastal areas (UN-Habitat, 2016).

##### **Land Use Distribution in Coastal Areas**

Land use patterns along the Lebanese coast reflect a mixture of urban, industrial, tourism, and agricultural activities. In major coastal cities such as Beirut and Tripoli, urban land uses dominate the coastal landscape, including residential buildings, commercial centers, ports, and infrastructure facilities.

Tourism development represents another important land use category along the coastline. Numerous private resorts, beach clubs, and hotels

have been developed along the coastal strip, particularly in areas close to Beirut and Mount Lebanon. While tourism contributes significantly to the national economy, many tourism developments have expanded into areas belonging to the maritime public domain (Legal Agenda, 2018).

Industrial facilities are also present in several coastal locations, including port areas and energy infrastructure zones. Industrial activities and port operations contribute to economic development but may also generate environmental pressures such as marine pollution and coastal degradation.

Agricultural activities remain present in some coastal areas, particularly in the northern coastal plain and the Akkar region, where fertile soils support citrus cultivation and other agricultural production.

Overall, the diversity of land uses along the Lebanese coast reflects the strategic economic importance of coastal areas but also highlights the complexity of managing competing spatial demands.

### Environmental Characteristics of the Coastal Zone

The Lebanese coastal zone contains several important natural ecosystems that play critical roles in environmental sustainability and coastal resilience. Coastal ecosystems such as wetlands, sand dunes, rocky habitats, and marine ecosystems support biodiversity and contribute to the ecological balance of the Mediterranean region (Nicholls & Cazenave, 2010).

Several protected natural areas exist along the Lebanese coast, including the Tyre Coast Nature Reserve, which is one of the most important marine and coastal conservation areas in the country. This reserve protects sandy beaches, marine habitats, and bird migration routes, illustrating the ecological value of coastal ecosystems.

Despite these natural assets, the Lebanese coastal environment has been increasingly affected by pollution and environmental degradation. Untreated wastewater discharge, solid waste dumping, and industrial activities have contributed to declining

water quality in several coastal areas (Ministry of Environment, 2015).

Coastal erosion represents another growing environmental concern. In some locations, land reclamation projects and infrastructure development have altered natural sediment flows, accelerating erosion processes along certain segments of the coastline.

These environmental pressures highlight the importance of adopting integrated coastal management strategies that balance economic development with environmental protection.

## V. MAJOR ISSUES AFFECTING THE COASTAL PUBLIC DOMAIN IN LEBANON

Coastal zones worldwide face increasing pressures resulting from the interaction between socioeconomic development and natural coastal systems. Rapid urbanization, tourism development, and infrastructure expansion often generate environmental degradation and spatial conflicts along coastal areas (Turner, Subak, & Adger, 1996).

Table 2. Major Issues Affecting the Coastal Public Domain in Lebanon

Issue	Main Causes	Impacts on Coastal Areas
Illegal coastal encroachments	Weak enforcement of coastal regulations and political influence	Occupation of maritime public domain and loss of public coastal land
Privatization of coastal areas	Expansion of private tourism developments and beach resorts	Restricted public access to the sea
Environmental degradation	Marine pollution, land reclamation, and uncontrolled construction	Damage to coastal ecosystems and biodiversity
Loss of public access	Fenced private developments and entrance-	Social inequality in access to coastal resources

	fee beach facilities	
Institutional fragmentation	Overlapping responsibilities among governmental institutions	Weak coastal governance and inconsistent policy implementation

Source: Author, based on Ministry of Environment (2015); Legal Agenda (2018); World Bank (2020).

### Illegal Encroachments on the Coastal Public Domain

One of the most significant challenges affecting the coastal public domain in Lebanon is the widespread presence of illegal encroachments on public maritime property. Despite the legal protections established under Decision 144/S (1925), large portions of the Lebanese coastline have been occupied by private developments such as resorts, beach clubs, marinas, and residential complexes (Legal Agenda, 2018).

These encroachments often involve the construction of buildings and facilities directly on the shoreline or within areas legally classified as maritime public domain. In many cases, private developers have extended their properties into the sea through land reclamation projects, thereby increasing the size of their developments while occupying public maritime space.

Several assessments indicate that the scale of coastal encroachments in Lebanon has reached alarming levels. It is estimated that more than 5.5 million m<sup>2</sup> of the maritime public domain are currently occupied by private developments, including resorts, beach clubs, marinas, and residential projects. In addition, studies suggest that only about 40 km of the approximately 220 km Lebanese coastline remain freely accessible to the public, meaning that nearly 80% of the coastline is currently restricted or privatized (MOE/UNDP/ECODIT, 2011; Legal Agenda, 2018).

Civil society organizations have repeatedly highlighted the scale of these violations. Studies conducted by advocacy groups indicate that a large proportion of Lebanon's coastline is affected by either illegal construction or developments

operating under questionable permits (NAHNOO, 2017).

The persistence of these encroachments reflects weaknesses in regulatory enforcement and the absence of effective monitoring mechanisms.

### Privatization of Coastal Areas

Closely related to illegal encroachments is the gradual privatization of coastal areas, which has significantly altered the public character of the Lebanese coastline.

Although Lebanese law defines the coastline as public property, many coastal areas are currently controlled by private establishments such as beach resorts, restaurants, and tourism facilities. These establishments often restrict access to the shoreline through entrance fees or physical barriers, effectively transforming public coastal spaces into private recreational zones (Legal Agenda, 2018).

The privatization of coastal areas raises important questions regarding social equity and public rights. Access to the sea represents an important cultural and recreational resource for the population. However, the expansion of private developments has reduced the availability of freely accessible public beaches, particularly in urban coastal areas such as Beirut and Mount Lebanon.

This situation has led to increasing public debates regarding the right of citizens to access the coast and the need to restore public spaces along the shoreline (NAHNOO, 2017).

### Loss of Public Access to the Sea

The reduction of public access to the sea represents one of the most visible consequences of coastal privatization in Lebanon. Many segments of the coastline have become inaccessible due to private developments, fenced properties, or restricted beach resorts.

In urban areas, the availability of public coastal spaces has become extremely limited. For example, in the Greater Beirut area, only a small number of

public beaches remain accessible without entrance fees or private restrictions (World Bank, 2020).

Public access to the coastline is a fundamental principle of coastal public domain legislation. Ensuring equitable access to coastal resources is essential not only for recreational purposes but also for preserving the cultural and social value of coastal landscapes.

The loss of public access has therefore become a major concern for planners, policymakers, and civil society organizations advocating for the protection of the maritime public domain.

### **Environmental Degradation and Marine Pollution**

Coastal ecosystems in Lebanon have also been affected by significant environmental degradation. Rapid urbanization and uncontrolled development have placed considerable pressure on coastal environments.

One of the main environmental issues affecting the Lebanese coast is marine pollution caused by untreated wastewater discharge, industrial waste, and solid waste dumping. Several coastal areas have experienced declining water quality due to insufficient wastewater treatment infrastructure (Ministry of Environment, 2015).

Land reclamation projects and coastal infrastructure development have also altered natural coastal processes, affecting sediment flows and contributing to coastal erosion in some locations.

Furthermore, the destruction of natural habitats such as sand dunes, wetlands, and rocky ecosystems has reduced biodiversity and weakened the ecological resilience of coastal environments (Nicholls & Cazenave, 2010). These environmental challenges highlight the need for stronger environmental regulations and improved monitoring of coastal activities.

### **Institutional Fragmentation and Weak Governance**

Another important issue affecting the management of the coastal public domain is

institutional fragmentation. Coastal governance in Lebanon involves multiple governmental institutions with overlapping responsibilities, including the Ministry of Public Works and Transport, the Ministry of Environment, the Council for Development and Reconstruction, and local municipalities.

The lack of coordination between these institutions often results in inconsistent regulatory decisions and weak enforcement of coastal protection policies (World Bank, 2020).

In addition, political and economic pressures sometimes influence decisions related to coastal development projects, further complicating the enforcement of legal regulations governing the maritime public domain.

The absence of a comprehensive national strategy for coastal management has also limited the ability of planning authorities to address coastal challenges effectively.

Addressing these governance issues requires the adoption of integrated coastal management approaches that improve coordination between institutions and strengthen regulatory enforcement mechanisms.

## **VI. INTERNATIONAL EXPERIENCES IN COASTAL PUBLIC DOMAIN MANAGEMENT**

### **Coastal Protection Policies in France**

France represents one of the most advanced examples of coastal protection and public access regulation in Europe. The French coastal management system is primarily governed by the Littoral Law (Loi Littoral) adopted in 1986, which established strict regulations for coastal development and environmental protection (Deboudt, 2010).

The Littoral Law introduced several important principles aimed at preserving the ecological and social value of coastal zones. One of the central principles of the law is the restriction of urban development within a certain distance from the

shoreline. New construction is generally prohibited in undeveloped coastal areas, and urban expansion must be carefully controlled to prevent uncontrolled coastal sprawl (European Commission, 2011).

Another important aspect of the French coastal policy is the protection of public access to the coast. The law guarantees free access to beaches and coastal areas, ensuring that the coastline remains a public resource available to all citizens.

France also created the Conservatoire du Littoral, a public agency responsible for acquiring and protecting coastal land in order to preserve natural ecosystems and maintain public access. Since its creation, the agency has protected large portions of the French coastline through land acquisition and environmental conservation programs (Deboudt, 2010).

The French model demonstrates how strong legal frameworks and institutional coordination can effectively protect coastal areas while supporting sustainable tourism and economic activities.

### Coastal Reform in Spain

Spain provides another significant example of coastal public domain management. The country adopted a major coastal reform through the Spanish Coastal Law (Ley de Costas) of 1988, which aimed to restore public ownership of coastal areas and regulate coastal development (Barragán Muñoz, 2014).

The Spanish Coastal Law established the concept of public maritime-terrestrial domain, which includes beaches, dunes, coastal wetlands, and the strip of land adjacent to the sea. These areas are classified as public property and cannot be privately owned.

One of the most notable aspects of the Spanish reform was the effort to recover coastal areas that had been previously privatized. The law required the removal or regularization of illegal constructions located within protected coastal zones. In some cases, buildings constructed too close to the shoreline were demolished or relocated in order to

restore the natural coastal landscape (Barragán Muñoz, 2014).

Spain also introduced strict coastal zoning regulations that limit construction within a 100-meter protection zone from the shoreline. This buffer zone helps protect coastal ecosystems and maintain public access to the sea.

The Spanish experience illustrates how legal reforms and enforcement mechanisms can restore public control over coastal areas that were previously affected by uncontrolled development.

Table 3. Comparison of Coastal Public Domain Regulations in Selected Mediterranean Countries

Country	Main Coastal Law	Key Principle of Coastal Governance
France	Littoral Law (1986)	Strict regulation of coastal construction and preservation of natural coastal landscapes
Spain	Coastal Law (Ley de Costas, 1988)	Protection of the maritime-terrestrial public domain and restriction of private coastal occupation
Lebanon	Decision 144/S (1925)	Legal designation of the maritime public domain as public property intended for public use

Source: Author, based on European Commission (2011); Barragán Muñoz (2014); Decision 144/S (1925).

### Integrated Coastal Management in Mediterranean Countries

Many Mediterranean countries have adopted Integrated Coastal Zone Management (ICZM) as a strategic framework for managing coastal areas. ICZM aims to coordinate environmental protection, economic development, and social interests within a comprehensive coastal planning strategy (Cicin-Sain & Knecht, 1998).

In the Mediterranean region, the Barcelona Convention and its ICZM Protocol, adopted in 2008, provide a regional framework for sustainable coastal management. The protocol encourages Mediterranean countries to implement policies that protect coastal ecosystems, regulate coastal construction, and ensure public participation in coastal governance (UNEP/MAP, 2008).

Several Mediterranean countries have adopted ICZM strategies that combine spatial planning, environmental protection, and tourism management. These strategies often involve the creation of coastal protection zones, environmental monitoring programs, and integrated planning mechanisms that coordinate activities across different sectors.

The adoption of ICZM policies has helped several Mediterranean countries improve coastal governance and reduce environmental pressures on coastal ecosystems.

### **Lessons Applicable to Lebanon**

The international experiences discussed above provide several important lessons that can inform coastal management policies in Lebanon.

First, strong legal frameworks are essential for protecting coastal public domains. Laws such as the French Littoral Law and the Spanish Coastal Law demonstrate the importance of clear regulations that restrict construction near the shoreline and preserve public access.

Second, effective coastal governance requires institutional coordination between environmental agencies, planning authorities, and local governments. Fragmented governance systems often lead to weak enforcement of coastal protection policies.

Third, coastal management strategies should integrate environmental protection, urban planning, and economic development. The ICZM approach provides a comprehensive framework for achieving this integration.

Finally, ensuring public access to coastal areas should remain a central objective of coastal policy. Coastal spaces represent important social and cultural resources that should remain accessible to all citizens.

For Lebanon, these international experiences highlight the importance of adopting integrated coastal management strategies that combine legal reform, spatial planning, and environmental protection.

## **VII. PLANNING STRATEGIES FOR ORGANIZING THE COASTAL PUBLIC DOMAIN IN LEBANON**

### **Establishing a National Coastal Zone Management Strategy**

One of the most important steps toward improving the management of the coastal public domain in Lebanon is the development of a National Coastal Zone Management Strategy. Currently, coastal governance in Lebanon is characterized by fragmented institutional responsibilities and the absence of a unified planning framework (World Bank, 2020).

A national coastal strategy should establish clear guidelines for the management of coastal areas, integrating environmental protection, urban development, tourism activities, and public access policies. Such a strategy would enable planning authorities to coordinate coastal policies across different sectors and institutions.

Integrated Coastal Zone Management (ICZM) provides a widely recognized framework for achieving this objective. ICZM promotes a coordinated approach that considers the ecological, social, and economic dimensions of coastal development (Cicin-Sain & Knecht, 1998).

Effective coastal planning requires integrated governance frameworks capable of coordinating environmental protection, land-use planning, and economic development in coastal regions (Beatley, Brower, & Schwab, 2002).

For Lebanon, the adoption of an ICZM-based national strategy would help improve coordination between the Ministry of Public Works and Transport, the Ministry of Environment, the General Directorate of Urban Planning, and local municipalities.

### **Coastal Zoning and Land Use Regulation**

A key component of effective coastal management is the establishment of coastal zoning regulations that define how different coastal areas can be used. Coastal zoning allows planners to organize coastal land uses according to environmental sensitivity, urban development needs, and economic activities.

Integrated coastal planning requires coordination between spatial planning, environmental management, and coastal development policies in order to ensure sustainable coastal development (Kay & Alder, 2005).

A comprehensive coastal zoning framework in Lebanon could include several categories of coastal zones:

- Protected natural zones, where construction is prohibited in order to preserve coastal ecosystems and biodiversity.
- Public recreational zones, where beaches and waterfront areas remain accessible to the public.
- Controlled tourism development zones, where tourism facilities may be developed under strict environmental and planning regulations.
- Urban coastal zones, where existing urban areas can be improved through sustainable waterfront planning.

Such zoning strategies have been successfully implemented in several Mediterranean countries as part of integrated coastal management policies (European Commission, 2011).

### **Restoring Public Access to the Coast**

Restoring public access to the sea should be a central objective of coastal planning policies in Lebanon. The principle of free public access to coastal areas is fundamental to the concept of the maritime public domain and is widely recognized in coastal governance systems worldwide (Scovazzi, 2011).

Several planning interventions can be implemented to restore public access to the Lebanese coastline:

- creation of continuous coastal promenades along urban waterfronts,
- development of new public beaches and recreational spaces,
- establishment of public access corridors through privately developed coastal areas,
- protection of remaining public coastal spaces from further privatization.

These measures would help ensure that coastal areas remain accessible to the population while enhancing the quality of urban public spaces along the coastline.

### **Legal Regularization of Existing Encroachments**

Addressing existing coastal encroachments represents one of the most complex challenges in the management of the maritime public domain. Over the past decades, numerous private developments have occupied coastal public property through illegal construction or temporary permits that have evolved into long-term occupations (Legal Agenda, 2018).

#### **A comprehensive strategy for addressing these violations may include several approaches:**

- legal review of existing coastal permits,
- financial penalties or compensation mechanisms for illegal occupations,
- partial removal of structures that violate coastal protection laws,
- renegotiation of certain permits under stricter regulatory conditions.

These measures should be implemented carefully in order to balance legal enforcement with economic stability, particularly in areas where tourism infrastructure plays an important role in the local economy.

### **Environmental Restoration and Coastal Protection**

Environmental restoration should also be a key component of coastal management strategies in Lebanon. Coastal ecosystems such as dunes, wetlands, and marine habitats provide essential ecological services and help protect coastal areas

from erosion and climate-related risks (Nicholls & Cazenave, 2010).

**Environmental protection policies should focus on several priorities:**

- reducing marine pollution through improved wastewater treatment infrastructure,
- restoring degraded coastal ecosystems,
- protecting marine biodiversity and natural habitats,
- implementing coastal monitoring systems to track environmental changes.

Such measures would contribute to improving the ecological resilience of the Lebanese coastline.

**Sustainable Coastal Tourism Development**

Tourism represents one of the most important economic sectors associated with coastal areas in Lebanon. However, tourism development must be carefully planned to avoid further environmental degradation or excessive privatization of coastal spaces.

**Sustainable tourism strategies should encourage:**

- environmentally responsible coastal tourism projects,
- architectural designs that respect coastal landscapes,
- integration of tourism infrastructure within broader coastal planning strategies.

Sustainable tourism can play a positive role in supporting economic development while preserving the environmental and social value of coastal areas.

Table 4. Proposed Strategies for Sustainable Coastal Public Domain Management in Lebanon

Strategic Objective	Proposed Strategy	Expected Outcomes
Strengthening coastal governance	Establish a national coastal management authority and improve coordination among institutions	More coherent coastal governance and stronger regulatory enforcement
Protecting coastal public domain	Strengthen legal enforcement mechanisms	Reduction of illegal encroachments

	and review existing coastal permits	and better protection of maritime public property
Improving spatial planning	Implement coastal zoning regulations and integrate coastal planning into national spatial planning policies	Balanced coastal development and protection of sensitive coastal areas
Restoring public access to the coast	Develop public beaches, coastal promenades, and access corridors to the sea	Improved social equity and enhanced public access to coastal spaces
Environmental protection	Restore coastal ecosystems and improve wastewater and pollution management systems	Improved environmental quality and resilience of coastal ecosystems

Source: Author, based on Cicin-Sain & Knecht (1998); European Commission (2011); World Bank (2020).

**VIII. ECONOMIC AND SOCIAL BENEFITS OF COASTAL REORGANIZATION**

**Economic Potential of the Lebanese Coast**

The Lebanese coastline constitutes one of the country's most valuable territorial assets and plays a significant role in national economic development. Coastal areas provide strategic opportunities for tourism, maritime transport, fisheries, recreation, and urban development. In many countries, coastal zones represent economic hubs where multiple sectors converge, generating employment opportunities and supporting regional development (Barragán Muñoz, 2014).

Lebanon's Mediterranean location historically positioned its coastal cities as major centers of trade and cultural exchange. Cities such as Beirut, Tripoli, Saida, and Tyre developed around maritime activities and continue to serve as key nodes of economic activity. Today, a large proportion of Lebanon's

economic infrastructure, including ports, tourism facilities, and commercial districts, is concentrated along the coastal strip (World Bank, 2020).

Tourism represents one of the most important sectors linked to coastal areas. Lebanon's coastline offers attractive natural landscapes, historical heritage sites, and recreational opportunities that have the potential to support a diversified tourism economy. Coastal tourism activities include beach tourism, maritime sports, cultural tourism, and waterfront recreation. According to several economic studies, sustainable tourism development can significantly contribute to local economic growth and job creation in coastal regions (European Commission, 2011).

However, the current pattern of coastal development in Lebanon has often prioritized short-term private investments over long-term strategic planning. Many coastal developments operate as isolated resorts or private beach clubs that generate limited economic spillover effects for surrounding communities. A more integrated approach to coastal development could stimulate broader economic benefits by promoting public waterfront development, sustainable tourism infrastructure, and diversified recreational activities.

International experiences demonstrate that well-designed waterfront development projects can become powerful drivers of urban economic regeneration. The redevelopment of waterfront districts in cities such as Barcelona, Marseille, and Sydney illustrates how strategic coastal planning can attract investment, increase property values, and stimulate tourism while preserving public access and environmental quality (Hoyle, 2000).

For Lebanon, reorganizing the coastal public domain could unlock significant economic potential by transforming coastal areas into vibrant spaces that combine tourism, public recreation, and urban development.

### **Public Space and Social Equity**

Beyond its economic value, the coastline also plays a fundamental social role as a public space that

contributes to the quality of urban life. Coastal environments provide opportunities for recreation, relaxation, and social interaction, making them essential components of urban public space systems.

Public access to coastal areas is widely recognized as a fundamental principle of coastal governance. Beaches and waterfront spaces represent shared natural resources that should remain accessible to all citizens regardless of their socio-economic background (Scovazzi, 2011).

In Lebanon, however, the gradual privatization of coastal areas has significantly reduced the availability of accessible public beaches. Numerous coastal establishments restrict access through entrance fees or private facilities, limiting the ability of many citizens to enjoy the coastline. This situation has raised important concerns regarding social equity and the distribution of public resources (NAHNOO, 2017).

The development of public coastal spaces can play a crucial role in addressing these inequalities. Urban waterfront promenades, public beaches, coastal parks, and recreational facilities can provide accessible environments for leisure and community activities.

Public waterfront spaces also contribute to social cohesion and cultural identity. Coastal landscapes often hold symbolic and cultural significance for local communities. Ensuring that these spaces remain publicly accessible helps preserve the social and cultural relationship between citizens and the sea.

Furthermore, well-designed public spaces along the coast can enhance urban livability by improving environmental quality, promoting pedestrian mobility, and providing opportunities for physical activity and social interaction.

### **Urban Waterfront Development Opportunities**

Urban waterfront redevelopment has become a widely adopted strategy for revitalizing coastal cities and reconnecting urban populations with the sea. Historically, many waterfront areas were dominated

by industrial activities, ports, or infrastructure that limited public access. In recent decades, numerous cities have transformed these areas into multifunctional urban districts that combine economic, cultural, and recreational functions (Hoyle, 2000).

One of the most well-known examples of successful waterfront redevelopment is the transformation of the Barcelona waterfront prior to the 1992 Olympic Games. Through comprehensive urban planning and infrastructure investment, Barcelona converted former industrial coastal zones into vibrant public spaces that include beaches, promenades, parks, and tourism facilities. The project significantly enhanced the city's international image and stimulated economic development (Marshall, 2001).

Similar transformations have occurred in cities such as Hamburg, Rotterdam, and Singapore, where waterfront redevelopment projects have integrated public spaces, residential areas, cultural institutions, and tourism infrastructure.

In Lebanon, several coastal cities possess significant opportunities for waterfront regeneration. Urban areas with degraded or underutilized coastal zones could benefit from redevelopment strategies that prioritize public access, environmental restoration, and mixed-use development.

#### **Potential initiatives for Lebanese coastal cities include:**

- development of continuous pedestrian promenades along urban waterfronts,
- rehabilitation of degraded coastal landscapes,
- creation of public beaches and recreational parks,
- integration of cultural, commercial, and tourism facilities within waterfront districts.

Such initiatives would not only improve the quality of urban environments but also enhance the economic attractiveness of coastal cities.

#### **Environmental and Climate Resilience Benefits**

The reorganization of the coastal public domain also offers important environmental benefits. Coastal ecosystems play a critical role in maintaining

ecological balance and protecting coastal areas from environmental risks.

Natural coastal features such as dunes, wetlands, and marine habitats act as natural barriers against storm surges and coastal erosion. These ecosystems also support biodiversity and provide essential habitats for marine species (Nicholls & Cazenave, 2010).

However, many of these ecosystems have been degraded by uncontrolled construction, pollution, and land reclamation projects. Restoring natural coastal environments can significantly enhance the resilience of coastal areas to climate-related risks such as sea-level rise and extreme weather events.

#### **Environmental restoration strategies may include:**

- protection of coastal wetlands and marine habitats,
- restoration of natural sand dune systems,
- reduction of marine pollution through improved wastewater treatment,
- monitoring of coastal erosion and sediment dynamics.

These measures are increasingly important in the context of global climate change. Many coastal regions around the world are adopting ecosystem-based approaches to coastal management in order to strengthen environmental resilience and protect coastal communities.

For Lebanon, integrating environmental restoration within coastal planning strategies would help preserve the ecological integrity of the coastline while supporting sustainable development.

## **IX. PROPOSED GOVERNANCE MODEL FOR COASTAL PUBLIC DOMAIN MANAGEMENT IN LEBANON**

### **Institutional Coordination Framework**

One of the most critical challenges affecting coastal management in Lebanon is the fragmentation of institutional responsibilities among several governmental bodies. Currently, coastal governance involves multiple institutions including the Ministry of Public Works and Transport, the Ministry of

Environment, the Council for Development and Reconstruction (CDR), the General Directorate of Urban Planning (DGUP), and local municipal authorities. While each institution performs important functions, the absence of a unified coordination mechanism often leads to inconsistent decision-making and weak regulatory enforcement (World Bank, 2020).

The effectiveness of coastal governance systems is often evaluated through institutional coordination mechanisms and the development of clear indicators for monitoring coastal management programs (Sorensen, 2002).

A more effective governance structure would require the establishment of a central coordinating authority for coastal management. Such an authority could function as a national coastal agency responsible for coordinating policies related to coastal planning, environmental protection, infrastructure development, and public access management.

This institutional coordination framework would not necessarily replace existing institutions but would instead serve as a platform for inter-institutional cooperation, ensuring that policies related to coastal areas are implemented in a coherent and coordinated manner.

The establishment of a national coastal coordination body would facilitate communication between ministries, improve data sharing, and strengthen monitoring mechanisms for coastal development projects.

### **Legal Reform and Regulatory Enforcement**

Strengthening the legal framework governing the coastal public domain is essential for improving coastal governance in Lebanon. Although Decision 144/S (1925) provides the legal foundation for the protection of maritime public property, its enforcement has often been inconsistent, allowing widespread violations and unauthorized developments along the coastline (Legal Agenda, 2018).

### **Legal reforms should focus on several key areas:**

First, the regulatory framework governing the occupation of the maritime public domain should be updated to reflect contemporary environmental and planning challenges. Clearer regulations are needed to define the conditions under which temporary coastal permits may be granted and to ensure that such permits do not evolve into permanent privatization.

Second, enforcement mechanisms must be strengthened in order to address illegal encroachments. This may involve improved monitoring systems, stronger penalties for violations, and clearer legal procedures for the removal or regularization of illegal structures.

Third, legal reforms should reinforce the principle of public access to the coastline, ensuring that coastal developments do not restrict the ability of citizens to access the sea.

Strengthening legal enforcement is essential for restoring public confidence in coastal governance and ensuring that the maritime public domain remains protected as a national resource.

### **Integrated Coastal Planning and Spatial Regulation**

Effective coastal governance requires the integration of coastal management within broader spatial planning frameworks. Coastal areas should be incorporated into national and regional planning strategies through the development of coastal zoning systems that regulate land use along the shoreline.

### **A comprehensive coastal planning strategy could establish several categories of coastal zones, including:**

- environmental protection zones, where construction is prohibited in order to preserve sensitive ecosystems;
- public coastal zones, where beaches and waterfront spaces remain accessible to the public;

- controlled tourism development zones, where tourism facilities may be developed under strict environmental guidelines;
- urban waterfront zones, where sustainable urban development and waterfront revitalization projects can take place.

The proposed governance framework integrates institutional coordination, legal enforcement, spatial planning, and environmental protection mechanisms in order to improve the management of the coastal public domain in Lebanon. The structure of this proposed governance model is illustrated in Figure 4.



Figure 4. Proposed Governance Model for Coastal Public Domain Management in Lebanon

Source: Author, based on Cicin-Sain & Knecht (1998); European Commission (2011); World Bank (2020).

Such zoning frameworks are commonly used in many Mediterranean countries as part of integrated coastal management policies (European Commission, 2011). For Lebanon, coastal zoning would provide a strategic tool for balancing development pressures with environmental protection and public access.

In addition, coastal planning policies should incorporate climate resilience considerations, particularly in relation to sea-level rise and coastal erosion risks.

### Public Participation and Community Engagement

Successful coastal governance requires the active participation of local communities and civil society organizations. Public participation plays an important role in promoting transparency, improving decision-making processes, and strengthening the legitimacy of coastal policies.

In Lebanon, several civil society organizations have already played an important role in advocating for the protection of coastal public spaces and raising awareness about illegal coastal encroachments (NAHNOO, 2017).

Future coastal governance strategies should therefore include mechanisms for public consultation and community participation in coastal planning processes. These mechanisms may include public hearings, participatory planning workshops, and stakeholder engagement programs.

Encouraging community involvement in coastal management can help ensure that coastal development projects reflect the needs and priorities of local populations while strengthening public support for coastal protection policies.

### Implementation Strategies and Policy Recommendations

The successful implementation of coastal governance reforms in Lebanon will require a phased and coordinated approach involving multiple institutions and stakeholders.

#### Several key policy recommendations can be proposed:

- First, the government should develop a National Coastal Management Strategy that establishes clear objectives and planning guidelines for coastal development.
- Second, institutional coordination mechanisms should be strengthened through the creation of a national coastal management authority or coordination committee.
- Third, legal enforcement mechanisms should be improved to address illegal encroachments on the maritime public domain.

- Fourth, coastal planning policies should prioritize the restoration of public access to the sea and the development of public waterfront spaces.

Finally, environmental protection measures should be integrated into all coastal development policies in order to ensure the long-term sustainability of coastal ecosystems.

Through the implementation of these strategies, Lebanon could gradually transform its coastal public domain into a well-managed national resource that supports economic development, environmental sustainability, and social equity.

## X. CONCLUSION

### Summary of Findings

This study examined the current condition of the coastal public domain in Lebanon, focusing on the legal, spatial, environmental, and governance challenges affecting the management of coastal areas. The analysis demonstrated that the Lebanese coastline represents one of the country's most valuable territorial resources, providing important economic, environmental, and social functions.

From a legal perspective, the maritime public domain is clearly defined under Decision 144/S (1925), which establishes that the seashore and adjacent coastal areas constitute public property that cannot be privatized. Despite the existence of this legal framework, the research revealed that significant portions of the Lebanese coastline have been subject to unauthorized occupation and uncontrolled development over the past decades (Legal Agenda, 2018).

Spatial analysis of coastal development patterns indicates that urbanization has increasingly concentrated along the Lebanese coastal corridor. Major cities such as Beirut, Tripoli, Saida, and Tyre have experienced substantial expansion toward the shoreline, often in the absence of comprehensive coastal planning strategies (World Bank, 2020). This rapid urbanization has contributed to the fragmentation of coastal landscapes and the gradual reduction of natural coastal environments.

The research also identified several major issues affecting the coastal public domain. These include illegal encroachments on coastal property, privatization of beaches, limited public access to the sea, environmental degradation, and institutional fragmentation in coastal governance. These challenges reflect broader structural weaknesses in spatial planning and regulatory enforcement systems in Lebanon.

At the same time, international experiences in coastal management demonstrate that effective coastal governance can be achieved through strong legal frameworks, integrated planning strategies, and coordinated institutional mechanisms. Countries such as France and Spain have successfully implemented coastal protection policies that balance environmental protection, urban development, and public access to coastal areas (European Commission, 2011).

### Implications for Coastal Planning and Governance

The findings of this research highlight the urgent need for a comprehensive reform of coastal governance in Lebanon. The management of the coastal public domain requires an integrated approach that combines legal enforcement, spatial planning, environmental protection, and institutional coordination.

One of the most important priorities is the development of a national coastal management strategy that establishes clear planning guidelines for coastal development. Such a strategy should incorporate principles of Integrated Coastal Zone Management (ICZM) in order to balance economic activities with environmental sustainability (Cicin-Sain & Knecht, 1998).

Strengthening institutional coordination between governmental agencies responsible for coastal management is also essential. Improved coordination mechanisms would help reduce regulatory fragmentation and ensure more effective implementation of coastal protection policies.

In addition, restoring public access to the coastline should be recognized as a central objective of coastal governance. Coastal areas represent important public spaces that contribute to the social and cultural life of coastal communities. Ensuring equitable access to these spaces is therefore essential for promoting social equity and improving urban livability.

Environmental protection must also play a central role in future coastal planning policies. Coastal ecosystems provide critical ecological services and contribute to the resilience of coastal areas in the face of climate change and sea-level rise (Nicholls & Cazenave, 2010).

### Policy Recommendations

Based on the findings of this research, several policy recommendations can be proposed to improve the management of the coastal public domain in Lebanon.

- First, the government should establish a National Coastal Zone Management Strategy that integrates environmental protection, urban development, and tourism planning.
- Second, legal enforcement mechanisms should be strengthened to address illegal encroachments on the maritime public domain and ensure compliance with coastal protection regulations.
- Third, coastal zoning policies should be introduced to regulate land use along the coastline and protect environmentally sensitive areas.
- Fourth, public access to coastal areas should be restored through the development of public beaches, waterfront promenades, and coastal recreational spaces.
- Finally, environmental restoration programs should be implemented to rehabilitate degraded coastal ecosystems and improve the ecological resilience of coastal environments.

### Directions for Future Research

Although this study provides an overview of the major challenges affecting the coastal public domain in Lebanon, further research is needed to support more detailed policy development.

Future studies could focus on spatial mapping of coastal encroachments using geographic information systems (GIS), economic assessments of coastal tourism potential, and environmental monitoring of coastal ecosystems. Such research would contribute to a deeper understanding of coastal dynamics and support the development of more effective coastal management strategies.

## REFERENCES

1. Barragán Muñoz, J. M. (2014). *Coastal Governance in the Mediterranean: Challenges and Policies*. Springer, Cham.
2. Beatley, T., Brower, D. J., & Schwab, A. K. (2002). *An Introduction to Coastal Zone Management* (2nd ed.). Island Press, Washington, DC.
3. Cicin-Sain, B., & Knecht, R. (1998). *Integrated Coastal and Ocean Management: Concepts and Practices*. Island Press, Washington, DC.
4. Clark, J. R. (1996). *Coastal Zone Management Handbook*. CRC Press, Boca Raton.
5. Decision No. 144/S. (1925). *Regulation of the Maritime Public Domain in Lebanon*. Issued by the French High Commission of the Levant.
6. Deboudt, P. (2010). Coastal management in France: Evolution and current challenges. *Ocean & Coastal Management*, 53(7), 353–360.
7. European Commission. (2011). *Integrated Coastal Zone Management in Europe: Achievements and Future Perspectives*. Brussels.
8. Hoyle, B. (2000). Global and local change on the port–city waterfront. *Geographical Review*, 90(3), 395–417.
9. Kay, R., & Alder, J. (2005). *Coastal Planning and Management* (2nd ed.). Taylor & Francis, London.
10. Legal Agenda. (2018). *Framing the Lebanese Seashore: Crowding Out Public Interest*. Beirut.
11. Marshall, R. (2001). *Waterfronts in Post-Industrial Cities*. Spon Press, London.
12. Ministry of Environment (MOE). (2015). *Lebanon State of the Environment Report*. Beirut.
13. MOE / UNDP / ECODIT. (2011). *State and Trends of the Lebanese Environment 2010*. Ministry of Environment, Beirut.
14. NAHNOO. (2017). *The Coast for All Campaign: Public Access to the Lebanese Coastline*. Beirut.

15. Nicholls, R. J., & Cazenave, A. (2010). Sea-level rise and its impact on coastal zones. *Science*, 328(5985), 1517–1520.
16. Scovazzi, T. (2011). Public access to coastal areas in international and national law. *Ocean & Coastal Management*, 54(1), 1–7.
17. Sorensen, J. (2002). Baselines and indicators for evaluation of coastal management programs. *Ocean & Coastal Management*, 45(4–5), 231–257.
18. Turner, R. K., Subak, S., & Adger, W. N. (1996). Pressures, trends, and impacts in coastal zones: Interactions between socioeconomic and natural systems. *Environmental Management*, 20(2), 159–173.
19. UN-Habitat. (2016). Lebanon Urban Profile. United Nations Human Settlements Programme.
20. UNEP/MAP. (2008). Protocol on Integrated Coastal Zone Management in the Mediterranean. Barcelona Convention.
21. United Nations. (1982). United Nations Convention on the Law of the Sea (UNCLOS).
22. World Bank. (2020). Lebanon Coastal Zone Management Report. Washington, DC.