

T6 • Beyond Source to Sea Approach: Governance of Coastal and Island Ecosystems

1. Background

Managing and coordinating human and economic activities, as well as natural resources in coastal areas in a shared and effective manner is one of the great challenges of our time, essential to ensuring a balance between economic development and environmental protection, and therefore the resilience of communities.

The panel “Governance of Coastal and Island Ecosystems”, organized within the framework of the Euro-Mediterranean Water Forum 2026, aims to promote an integrated reflection on the relationship between the sea, water, and coastal communities in the context of the profound climatic, environmental, and economic transformations affecting the Mediterranean region. Today, coastal and island areas represent strategic spaces where vulnerabilities converge alongside significant opportunities: climate change, coastal erosion, water scarcity, anthropogenic pressure, groundwater salinization, biodiversity protection, infrastructure security, and the development of the Blue Economy are all interconnected within a complex and interdependent ecosystem.

The urgency of this approach is reinforced by the growing pressure on the Mediterranean ecosystem. According to the latest regional analyses, the population of Mediterranean countries is expected to increase by around 20–30% by 2050, while the Mediterranean Sea is warming almost 20% faster than the global average, with sea surface temperatures projected to exceed +2°C by 2040. Recent observations have already recorded sea surface temperature anomalies of up to +5°C above historical averages. At the same time, approximately 230,000 tonnes of plastic enter the Mediterranean every year, making it one of the world’s most polluted semi-enclosed seas and contributing to the degradation of biodiversity and coastal habitats. These environmental pressures highlight the growing interdependence between freshwater systems, coastal ecosystems and the marine environment. They also demonstrate that the Mediterranean should no longer be regarded solely as the final recipient of land-based pressures, but rather as an integral component of a broader freshwater–ocean continuum. Addressing water scarcity, marine pollution and coastal ecosystem degradation therefore requires stronger cooperation between water-sector stakeholders and marine governance actors. This evolving perspective invites water institutions to play an increasingly proactive role in protecting the Mediterranean Sea through a strengthened Source-to-Sea approach.

From this perspective, the management of coastal ecosystems requires a systemic governance approach capable of integrating water management as a key factor of territorial resilience. Water stakeholders are increasingly involved in the management of coastal areas through dedicated policies and governance models, such as Integrated Coastal Zone Management (ICZM) policies. Beyond their traditional responsibilities for freshwater management, water-sector stakeholders play a decisive role in shaping the ecological conditions of coastal and marine ecosystems through water quality management, wastewater treatment, river basin management, and pollution prevention. Strengthening cooperation between water-sector stakeholders and marine actors is therefore becoming a strategic prerequisite for protecting the Mediterranean as a connected freshwater–ocean system.

Among the most significant experiences of integrated coastal governance is the Marseille Bay Contract, which represents an interesting model of territorial cooperation and shared management of natural resources. Nevertheless, much remains to be done to disseminate such approaches and promote their adoption across the Euro-Mediterranean region. In this regard, particular relevance can be found in the European Commission Communications COM(2025) 280 final of 4 June 2025, “European Water Resilience Strategy,” and COM(2025) 281 final of 5 June 2025, “European Ocean Pact.” Both documents identify the Source-to-Sea approach as a key instrument for supporting coastal communities in addressing land-based pollution, recognizing their role as a “filter” between terrestrial pollution sources and the degradation of marine ecosystems. Furthermore, COM(2025) 280 final announces, for 2027, a flagship initiative aimed at launching Green and Blue Corridors to support the restoration of infrastructure and ecological systems, including rivers, wetlands,

and coastal zones, with the objective of restoring the water cycle through a Source-to-Sea approach. Within this context, the European Commission Communication COM(2026) 530 final of 10 June 2026, “EU Strategy on Resilient, Prosperous and Liveable Coastal Communities”, is also particularly relevant. For the first time, it introduces an integrated European strategy specifically dedicated to coastal communities. The Communication recognizes coastal communities as key actors in protecting marine ecosystems, implementing the Source-to-Sea approach, and strengthening the environmental, economic, and social resilience of the Euro-Mediterranean region. Particular attention during the Forum will be devoted to the Euro-Mediterranean region as a natural laboratory for cooperation, where the sustainable management of water resources and coastal ecosystems represents a central challenge for territorial stability, competitiveness, and resilience.

Coastal areas are increasingly emerging as physical and geopolitical convergence points for energy, logistics, digital, satellite, and water infrastructures, becoming critical nodes for the economic, environmental, and infrastructural security of the Euro-Mediterranean region. In this context, coastal governance can be regarded as a genuine strategic compass for guiding resilience and sustainable development policies across the Euro-Mediterranean area. It provides a framework capable of integrating the main contemporary domains—land, sea, air, space, and cyberspace—within a systemic vision of territorial resilience. In a context characterized by growing convergence between physical and digital domains, critical infrastructures, natural resources, and economic systems, the management of coastal areas requires multidomain approaches and increasingly integrated models of cooperation.

2. Key Challenges and Objectives

The panel “Governance of Coastal and Island Ecosystems”, organized within the framework of the Euro-Mediterranean Water Forum 2026, aims to promote an integrated reflection on the relationship between the sea, land-water management, and local communities in the context of the profound climatic, environmental, and economic transformations affecting the Euro-Mediterranean region. The growing interdependence between water, the environment, infrastructure, the economy, and security calls for a new generation of public policies and integrated governance models capable of fostering coordination among institutions, businesses, the scientific community, and civil society.

The High-Level Session aims to promote a strategic dialogue among policymakers, international institutions, territorial authorities, the scientific community, businesses, and civil society organizations on the role of integrated governance of coastal and island ecosystems as a fundamental tool for strengthening territorial resilience, water security, and sustainable development, particularly within the Blue Economy of the Euro-Mediterranean region.

From this perspective, the session contributes to strengthening the link between the protection of water-related ecosystems and the preservation of the marine environment, in line with the Barcelona Convention, the Land-Based Sources and Activities (LBS) Protocol, the United Nations Decade of Ocean Science for Sustainable Development, and the outcomes of the UN Ocean Conference. The initiative also aligns with the framework of the United Nations Sustainable Development Goals, contributing in particular to SDG 6.6, which focuses on the protection and restoration of water-related ecosystems, and SDG 14.1, aimed at preventing and significantly reducing marine pollution. In doing so, it seeks to foster political, scientific, and technical mobilization among water-sector stakeholders in support of the protection of the Mediterranean ecosystem.

Challenge 1 • Integrated Governance of Coastal and Island Ecosystems

The panel will explore the set of rules, policies, instruments, best practices, and projects through which coastal and marine territories can be managed, coordinated, and protected within a complex and interconnected system involving institutions, associations, research organizations, businesses, and citizens.

Challenge 2 • Strengthening Water Security and Territorial Resilience

It will also examine how to connect environmental sustainability, water resources and security, coastal planning, infrastructure, technological innovation, economic development, and community protection, highlighting the need for new integrated multidomain governance models. Particular attention will be devoted to strengthening cooperation between freshwater and marine stakeholders, recognizing that the protection of Mediterranean coastal ecosystems requires integrated action across the entire freshwater-ocean continuum.

Challenge 3 • Unlocking the Potential of the Blue Economy

From a Blue Economy perspective, integrated governance encompasses natural ecosystems—including small islands and marine protected areas—together with the main sea-related economic activities, ranging from fisheries to port operations, maritime transport to tourism, recreational boating to offshore energy, and extending to the underwater economy. It also includes strategic infrastructures such as ports, waterfronts, energy and data networks, water systems, and logistics connections, as well as the social and cultural dimensions of coastal communities: maritime identity, traditions, professional skills, cultural heritage, and quality of life.

Challenge 4 • Building Cooperation Across Institutions, Communities and Borders

These elements are complemented by institutional and governance dimensions, ranging from maritime spatial planning to international cooperation, from security to civil protection, and from sustainable resource management to climate resilience. The relevance of this topic is particularly evident in Italy, the host country of the Forum, where the Blue Economy, according to the XIV National Report by OsserMare and the Guglielmo Tagliacarne Research Centre in collaboration with Unioncamere, generates €224.9 billion in added value, equivalent to 11.4% of national GDP, supported by 1.133.949 employees and 253.599 enterprises.

3. Guiding Questions

Question 1 • Governance and Public Policies

How can integrated governance models better connect water management, coastal planning, environmental protection and socio-economic development to strengthen the resilience of coastal and island territories across the Euro-Mediterranean region?

Question 2 • From Strategy to Implementation

How can water-sector stakeholders and marine governance actors strengthen cooperation to implement the Source-to-Sea approach more effectively, and what political, regulatory and operational barriers still prevent a more integrated management of the Mediterranean freshwater-ocean continuum?

Question 3 • Building Resilient Coastal Communities

Looking ahead, which integrated governance experiences, good practices and cooperation models can provide practical examples for strengthening the resilience of coastal and island communities, and how can they be shared and replicated across the Euro-Mediterranean region?

4. Expected Outcomes

Outcome 1 • Advancing Integrated Coastal Governance

The discussion may reinforce the recognition of integrated governance of coastal and island ecosystems as a strategic pillar for strengthening the resilience of the Euro-Mediterranean region. It may also highlight the need for more coordinated policy frameworks capable of connecting water, coastal, ocean and Blue Economy governance across different institutional levels.

Outcome 2 • Strengthening Cooperation and Shared Responsibility

The discussion may highlight the value of stronger cooperation among governments, international organizations, the scientific community, businesses and local authorities in supporting integrated coastal governance. It may also contribute to identifying and promoting successful governance experiences and transferable good practices that could inspire future policies and initiatives across the Euro-Mediterranean region.

Outcome 3 • Supporting Sustainable and Resilient Coastal Communities

The discussion may underline the contribution of the Blue Economy as a driver of sustainable development, innovation, employment and competitiveness across the Euro-Mediterranean region. It may also contribute to identifying policy directions capable of supporting more resilient, sustainable and competitive coastal and island communities.