

## COASTAL MANAGEMENT, NATURE-BASED SOLUTIONS, ENVIRONMENT

### COMPARATIVE DISCUSSION ON THE INTERDISCIPLINARITY OF ICZM REGULATIONS OF TURKEY AND COLOMBIA

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#### INTRODUCTION

Coasts are the most dynamic and valued geomorphological features on Earth. All over the world, coastal areas are under threat due to conflicting requirements that rely on natural resources such as habitats, recreation, and industry, in addition to the impacts of climate change. One of the premises of coastal zone management is interdisciplinarity. A clear and effective regulatory framework that facilitates decision-making at the national and local levels is an essential requirement. Appropriate governance mechanisms are needed to enable consultation with a wide range of stakeholders to build consensus and implement management measures, as well as communication or information pathways between stakeholders, scientists, and decision-makers (Soomai et al., 2018). Although the principles of coastal zone management are universal, the effectiveness of implementing these principles depends on the local resources and the regulatory frameworks. Additionally, there are few references to the application of interdisciplinarity, which integrates technical sciences with the legal infrastructure.

#### PROJECT

The joint project "Coastal scenery as core element to calculate vulnerability and support normative regulation of the coastal zones of Colombia and Turkey" funded by scientific and technological research bodies of Turkey (TUBITAK) and Colombia (Minciencias), is the first example of a collaborative project of Department of Civil Engineering, METU, Turkey and School of Law, Universidad Sergio Arboleda, Santa Marta, Colombia that aims to present the comparison of ICZM frameworks and how the country-specific regulatory frameworks affect the implementation and effectiveness of decision making considered in such plans. The use of technical tools such as multicriteria decision-making methods, vulnerability assessments, and scenery evaluation as regulatory tools are also analyzed for both countries. Consequently, this joint work is an opportunity for scientific development, both from conceptual and methodological aspects, in linking coastal engineering and legal administrative frameworks around a common goal of protecting coastal areas.

#### ICZM FRAMEWORK OF TURKEY AND COLOMBIA

Turkey and Colombia are both countries located in geostrategic positions. The former is the bridge between

Europe and Asia, having coastal zones in the Mediterranean and the Black Sea. The latter is in the northwest corner of South America and is the only country in this subcontinent with access to the Caribbean Sea and the Pacific Ocean. Therefore, this collaboration between the partners covers four seas and more than 10,000 km of coastlines, contributing to the diversity of coastal geomorphologies, problems, and governance systems.

Some of the initial findings of the ongoing project highlight the reflections of this diversity on the legislation. The Turkish Coastal Law (No: 3621, 2018) and the corresponding Regulation of the Implementation of the Coastal Law define the physical boundaries of the coastal areas in detail, focusing on the definition of the shoreline and distances to the shoreline. The Colombian approach is to determine environmental coastal units that reflect similar coastal areas in the same spatial zone for decision-making purposes (Botero et al., 2014). The Turkish legislative system introduced the concept of regional coastal area plans as part of the regulatory framework within the spatial planning legislation in 2014 (without enforcement power). In contrast, Colombia does not have a national coastal zone management plan. On the other hand, both countries experience the disadvantages of highly fragmented regulatory systems of the coastal area governance where the decisions require input from different governmental bodies, whereas local representation can be limited. Significant discussions will be presented focusing on both countries' limitations, bottlenecks, and best practices considering coastal zone management and integration of scientific and technical tools.

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