

Why did we undertake this study?

Adaptive management has been advocated as a fundamental principle of coastal management. However, its implementation is still limited. In this study, we investigated whether and how legal arrangements may constrain adaptive coastal management.

How was it done?

We examined legal barriers to adaptive coastal management in Florianópolis Brazil. Armação Beach, a coastal erosion hotspot in Florianópolis, was the focus of our case study. We analysed documents (i.e. legislation, case law, management documents, and academic publications) and interviewed 27 key informants, including government, non-government organisations, legal experts, and technical experts, to gain their perspectives on the legal barriers to adaptive coastal management.

What did we find?

Coastal management initiatives in Florianópolis have failed to follow the structured and iterative process of adaptive management. Vague, imprecise, and generic legal provisions have contributed to this outcome.

Given the open-ended nature of coastal management legislation, government entities have avoided making coastal management plans, which would have implications such as increased government spending, reduced government discretion on planning decisions, and conflicts with representatives of economic sectors and the electorate.

In this context, short-term defence strategies to manage coastal erosion have proliferated in response to crisis situations. Rather than adaptive coastal management, our results showed a predominance of reactive coastal management, with no commitment (or ability) to learn from management interventions.



Figure 1: Existing seawall at Armação Beach.

What are the implications?

Increased legal flexibility can help but also undermine adaptive management. The right balance between legal certainty and legal flexibility is required for adaptive coastal management. Findings of our study indicate further research on legal strategies to reach this appropriate balance is needed, as well as greater engagement with policy-makers and coastal stakeholders to reform coastal management legislation to facilitate adaptive management.

Want more information?

The full paper is available from: <https://doi.org/10.1016/j.marpol.2021.104436>

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Coastal Governance: Embracing Vulnerability and Change

