



# Protection of coastal areas in Italy: Where do national landscape and urban planning legislation fail?



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## ABSTRACT

Italian coastal areas have been subject to strong anthropogenic pressure and urbanization processes over the past 60 years. Urbanization of the protected 300-m strip from shoreline has reached levels of over fifty per cent in some parts of the country. This article, by building on previous quantitative analyses and by providing some more quantitative data on the urbanization processes of coastal land at the provincial level, seeks to understand whether a con-cause that has led to a considerable urbanisation process is to be found in the way national landscape legislation has been designed, in its relationship with urban planning, and in the institutional and administrative fragmentation that characterise the management of coastal areas in Italy. After analysing landscape legislation and assessing its relationship with urban planning functions, following an approach based on concept of nomotropism the article highlights, for Italy as a whole, that national landscape legislation while seeking to protect and safeguard coastal areas paved the way for increased urbanization and development. Drawing on regional data on illegal development, the concept of nomotropism is also used to emphasise the impact that building amnesty laws have had on the practice of illegal development so contributing to increased urbanization processes.

## 1. Introduction

Coastal areas in Italy have long been subject to a strong anthropic pressure since post World War II. The population of Italian coastal cities (see [Table 1 Section 4.1](#)), their population density, land consumption and urbanization rates have increased consistently from the 1950s to the Noughties and at a much higher pace than in other areas of the country ([Romano and Zullo, 2014](#); [ISPRA, 2015a](#)).

The matter that concerns coastal areas protection in Italy is quite complex. Maritime domain laws, civil and sailing code, landscape and urban planning regulations, concession laws, and national strategies overlap to protect coastal areas and regulate human activities. However, despite several regulations and constraints on development (e.g. public domain laws, urban and landscape planning regulations), coastal areas are subject to illegal development all over the country which is caused by strong anthropogenic pressure in various sectors such as residential development for second and holiday homes and tourism industry (see [Table 2 Section 4.2](#)) ([Berdini, 2010](#); [Curci, 2012](#); [Zanfi, 2013](#)). As several authors highlight ([Curr et al., 2000](#); [Miccadei et al., 2011](#)) degradation of the Mediterranean coastal landscape is striking as a consequence of patterns of urban growth and land consumption.

National gaps in policy design and implementation (Italy has yet to ratify the 2008 Integrated Coastal Zone Management Protocol, ICZM), lack of integration between agencies and sectors – urban planning, regional planning, sailing regulations, ports – and institutional fragmentation help explain the causes for the challenges facing coastal areas protection in Italy ([Ioppolo et al., 2013](#); [Zoppi and Lai, 2013](#)). All such elements are also discussed as possible causes in other contexts (see for instance [Allmendinger et al., 2002](#) and [Cheong, 2008](#)). [O'Hagan and Ballinger \(2010\)](#) and [Flannery et al. \(2015\)](#) emphasize the critical role that local governments can have in the successful management of coastal areas, especially with regard to land-based activities such as urban development. However, they also stress that local government generally tends to implement national strategies and policies being reliant on central government for funds. This highlights the importance of national strategies, regional government regulations and laws for the safeguard of coastal areas.

In this article the main focus is on the relationship between national landscape and urban planning regulations and its potential consequences on the pattern of urbanisation of coastal land. The aim is to understand whether there are flaws in the regulatory and planning system, and lack of coordination in national strategies, that might be the con-cause of non-optimal coastal area protection and excessive

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urbanization.

In order to do this, and in the light of quantitative data on coastal land urbanization rates and illegal development, this work analyses national landscape laws and their relationship with urban planning regulations with reference to the concept of nomotropism as one possible interpretation of the phenomenon of high urbanization rates of coastal land. The concept of nomotropism helps explain the impact that rules and regulatory systems have on behaviours and actions, whether or not such actions are in compliance with the rules (Conte, 2000; Chiodelli and Moroni, 2014). The article, hence, seeks to highlight that national landscape planning regulations might have contributed to a non-optimal safeguard of coastal areas and indirectly favoured consistent urbanization processes of the coastal environment. Using the same concept of nomotropism, the paper also highlights that the building amnesty laws which aimed at the legalization of illegal development might have had adverse impacts and spurred successive illegal development, so underlining the role of regulations and laws in determining unwanted consequences.

Overall, the concept of nomotropism, as a general concept, can be used to discuss and interpret the impact that any rules have on human activity. It could be used to interpret illegal development in general and not only in relation to coastal areas, urbanization patterns in other protected areas where development restrictions have been imposed (e.g. for hydrogeological safety reasons), or urbanization in other areas that area subject to similar restrictions as coastal areas (e.g. mountain areas above 1600 m). Because of higher population growth and density, better and more detailed data especially with regard to illegal development, and availability of previous quantitative studies (Romano and Zullo, 2014; Zoppi and Lai, 2015), coastal areas have been chosen as the object of this study.

This work places emphasis on issues and concerns directly related to anthropogenic pressure such as land consumption, population growth and illegal building activity, and does not deal with indirect issues, or *derived consequences* as Hansen (2010) calls them, which concern coastal zones (e.g. sea level rise and flooding) (for an account of the effect of climate change on the coastal zone see Hadley, 2009).

The article is organized as follows: Section 2 discusses the lack of integrated governance and the excessive fragmentation that characterises the management of the coastal environment with consequent impact on action, or inaction, from local authorities. Section 3 reports on the research hypothesis and methodology. Section 4 builds on previous findings from quantitative research, adds supplemental analysis, and deals with trends of population growth in major coastal cities, consumption and urbanization rates of the 300-m setback zones where development is restricted by national law. It also presents official statistics on illegal building activity along the coast over the last 13 years to emphasise and highlight the extent of the phenomenon and the negative impacts associated with it.

After the discussion of these main issues, the system of national landscape planning and its relationship with urban planning is presented and discussed in detail in Section 5 emphasising the consequences that such regulatory system has on coastal areas. Section 6 therefore offers an interpretation of the effects and impacts of legislation and regulations on urbanization rates of coastal areas and illegal building activity based on the concept of nomotropism. Finally, conclusions are drawn on the whole picture to emphasise the impact that regulations and lack of integration and coordination have on the management of Italian coastal areas. Future research is needed to explore specific regional and local case studies where urbanisation levels are higher for a better understanding of how regional and local planning regulations are dealing with management of coastal areas.

## 2. Lack of integrated governance and policy

Governance issues have a key role in the protection and management of the coastal environment (Hadley, 2009; Huitema et al., 2009;

Schmidt et al., 2013; Pittman and Armitage, 2016). However, currently the Italian coastal environment is governed by a set of legal arrangements and administrative functions and powers (tourism and management of beaches, port authorities, concession laws of public domain land, urban planning and landscape regulations) that appear to be uncoordinated and fragmented on top of a substantial lack of national policy (Buono et al., 2015). As Zoppi and Lai (2013) and Ioppolo et al. (2013) highlight, in Italy there is a need to achieve an adequate level of integration, both vertical between different tiers of government and horizontal between different sectors to optimise resources, actions and governance.

Italy has not yet ratified the ICZM Protocol and, despite having ratified the Marine Strategy Framework Directive in 2010,<sup>1</sup> it does not have a National Marine Strategy yet (for a critical analysis and discussion of ICZM principles see Mckenna et al., 2008). The lack of national policy and integrated governance together with fragmentation of responsibilities seem to be at the root of the issues that the Italian coastal environment is facing. This is confirmed by the Italian Ministry for the Environment, Land and Sea (MATT) (MATT, 2015) which on its website, in relation to a future *National Strategy on Integrated Coastal Zone Management*, admits the existing fragmentation but adds nothing more than:

“The MATT in order to overcome the fragmentation of competencies in Integrated Coastal Zone Management, has activated an agreement with the other institutional partners (regional governments and municipalities), with regard to planning and management of coastal areas in view of the definition of the necessary national strategy as well as the preparation of plans/programmes or guidelines for the ICZM Strategy”.

However, the *National Strategy for Climate Change Adaptation* (NSCCA) (MATT, 2013; Davide et al., 2013) seems to contradict the MATT guidelines by stating that the implementation of the measures on endangered species, infrastructure networks, water supply policies, limitations and restrictions on urban development is to be achieved through sectoral plans, which should identify the main actors and stakeholders, allocation of financial resources, monitoring and evaluation of the implementation process (MATT, 2014b: 5).

No details are provided however as to the phasing of the implementation, monitoring and evaluation, governance actors, where the financial resources should be allocated and who will allocate the resources.

Fragmentation strongly characterises landscape and urban planning at the regional level too. Generally, three different plans regulate the safeguard and protection of the coastal environment at the regional level: Piano Territoriale Regionale (PTR) or Piano di Indirizzo Territoriale (PIT) (both can be translated as *Regional Territorial/Spatial Plan*); Piano Regionale Paesaggistico or Paesistico (PRP) (*Regional Landscape Plan*); and Piano Regionale delle Coste (PRC) (*Regional Coastal Plan*). However, despite this being the general structure, not all regions have both a PTR/PIT and a PRP in place.

The trend among Italian regions is to substitute the PTR/PIT with regional plans that look specifically at the safeguard of landscape and environmental values such as PRPs, even though 8 coastal regions still have both PTR and PRP in place. PRPs are binding as regards development restrictions and local urban plans must conform to them.

<sup>1</sup> Article 5 of the ICZM Protocol sets out the objectives: facilitate sustainable development of and preserve coastal zones; ensure sustainable use of natural resources and preservation of the integrity of coastal ecosystems, landscapes and geomorphology, prevent and reduce effects of natural hazards such as climate change, achieve coherence between public and private initiatives and between all decisions of public authorities at all levels from national to local. The Marine Strategy Framework Directive aims to achieve good environmental status (GES) of the EU's marine waters. It establishes environment targets and associated indicators, a monitoring programme and a programme of measures.

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