Urban centres and coastal zone definition: Which area should we manage?

María de Andrés⁵, Juan M. Barragán⁶,⁷, Marinez Scherer⁸

⁵ Research Group on Integrated Coastal Zone Management, Ceimar, University of Cadiz, Spain
⁶ Research University Institute for Sustainable Social Development
⁷ Geoscience Department, Federal University of Santa Catarina, Brazil

1. Introduction

Coastal areas experience population growth causing impacts on coastal and marine ecosystems. Consequently, recognizing the model of coastal cities development is of great importance for coastal management. This research studies the role of urban areas being one of the main drivers of change, and uses a model for coastal zone delimitation. The methodology of analysis was applied to Santa Catarina State, on the southern coast of Brazil. The model studies the coastal zone as a system, with ecological, social and economic characteristics, obtaining three different geographical units within the Coastal System, shoreland, coastal uplands and coastal-influence lands. Results show that 26% of the Santa Catarina State urban occupation is located on the shoreland, which represents not more than 2% of the State area. This area also concentrates main economic activities, demonstrating the importance of focusing management on the shoreland. The definition of the coastal zone as a system could be applied in other Brazilian states and even to other countries, approximating coastal zone management to the reality.

Brazilian coastal urban occupation can be differentiated into two major geographic areas (Fig. 1): a) from Amapá to Ceará States the urban occupation and population density is lower if it is compared to the rest of the Brazilian coastal zone; b) from Ceará to Rio Grande do Sul there is an elevated population density, with a higher urbanization rate (MMA Ministério do Meio Ambiente. 2008). Moreover, it is common to find irregular settlements (the are out of the law) along the Brazilian coast (Bourguignon, 2013), causing difficult situations for an integrated coastal zone management.

Such a complex coastal area needs a proper and efficient management. The coastal zone management in Brazil is regulated by the National Coastal Management Plan (NCMP) (Plano Nacional de Gerenciamento Costeiro in Portuguese). The NCMP was introduced by the Coastal Management National Law (Lei 7.661/88). In 2004 the
Decree that regulates the Plan was sanctioned (Decree 5300/2004), legally introducing the Orla Project, an instrument developed by the Environmental Ministry (Oliveira et al., 2012). This project aims to manage the maritime border, area that supports main economic and natural activities in the coastal zone (MMA-SPU, 2006).

The National Coastal Management Plan defines and delimits Brazilian coastal zone (Nicolodi et al., 2009). In this sense, coastal municipalities delimit the inner coastal zone. Moreover, non-coastal

Fig. 1. Geographic coastal sets in Brazil according to the urban settlement. 
Source: Population settlement datasets from CIESIN, 2011
دریافت فوری متن کامل مقاله

امکان دانلود نسخه تمام متن مقالات انگلیسی
امکان دانلود نسخه ترجمه شده مقالات
پذیرش سفارش ترجمه تخصصی
امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
امکان دانلود رایگان ۲ صفحه اول هر مقاله
امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
دانلود فوری مقاله پس از پرداخت آنلاین
پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات