

# Preface - Human-altered coastal systems: processes, monitoring, and management

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The imperatives of economic development have constantly brought pressure to bear on coasts. In many countries throughout the world, the coast is increasingly destabilized by the construction of tourist infrastructure, routes, and harbours. The lessons accumulated from the destabilization of coasts by massive development, commonly resulting in erosion and costly mitigation solutions, are commonly forgotten or deliberately ignored under the pressures of development. At the same time, increasing human occupation of the coastal zone is resulting in alterations of the coast and aggravating exposure of coastal communities to risks arising from high-energy events, global change, and sea-level rise. This special issue of the *Journal of Coastal Conservation and Management* brings together experiences on human-altered coasts, through case studies, from several countries, that illustrate links between the physical and human dimensions of coasts that subtend the objectives and activities of the *Commission on Coastal Systems (CCS)* of the *International Geographical Union (IGU)*. The eight papers in this special issue represent a cross-section of the oral presentations contributed under the banner of the CCS at the IGU conference held in Cologne, Germany, in August 2012. The papers address various aspects of coasts. The importance of a good grasp of the morphodynamic functioning of beaches and dunes prior to forms of management is brought out in the paper by Sedrati and Anthony (2013). The paper by van der Meulen et al.

(2014) is a good illustration of how coastal defence can work with nature through dune-building, whereas Tresca et al. (2013) propose an interesting case study of dune growth and dynamics on a seawall. The utility of a sediment budget approach in beach management is brought out in the paper by Psuty et al. (2013). Chadenas et al. (2013) and Musereau and Regnaud (2014) propose studies that highlight the impacts of storms and, the former brings out, in particular, the lessons from the devastating 2010 superstorm Xynthia. Harley et al. (2013) propose a case study of the utility of coastal video monitoring in analysing nourishment and morphological changes on a gravel beach, and Jeanson et al. (2013) show the various stages of building up a GIS-based coastal observation network and its utility in hazard monitoring. Finally, Brooks and Spencer (2013) has documented the decadal-scale patterns of retreat of soft cliffs. It is intended that the papers will contribute to the corpus of research on human-altered coasts and to ways of mitigating coastal destabilization, in line with the objectives of the *Journal of Coastal Conservation and Management*.

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