

XI ECOECO

VII Congreso Iberoamericano
Desarrollo y Ambiente

XI ENCONTRO NACIONAL DA ECOECO
Araraquara-SP - Brasil

ENVIRONMENTAL PERMITTING IN COASTAL REGIONS OF CALIFORNIA (USA) AND RIO DE JANEIRO (BRA): A FRAMEWORK FOR COMPARATIVE ANALYSES AND IMPROVEMENTS

marcelo obraczka (UERJ) - marcelobraczka@gmail.com

Engenheiro civil e sanitaria (UERJ/1985), mestrado em Ciéncia Ambiental (UFF,2008), Doutorado em Planejamento Energético e Ambiental(PPE/COPPE, 2014). Professor Adjunto do Depto de Enga Sanitária e Meio Ambiente da UERJ

Marc Beyeler (UCSC in Santa Cruz) - marcbeyeler@mac.com

Marc Beyeler has taught and conducted research at the University of California for the past decade, and currently holds a Research Associate appointment in the Sociology Department and the Environmental Studies Department at the UCSC in Santa Cruz

**ENVIRONMENTAL PERMITTING IN COASTAL REGIONS OF CALIFORNIA (USA)
AND RIO DE JANEIRO (BRA): A FRAMEWORK FOR COMPARATIVE ANALYSES
AND IMPROVEMENTS**

Marcelo Obraczka^{a*}, Marc Beyeler^b, Alessandra Magrini^a and Luiz Fernando Legey^a

^aEnvironmental and Energy Planning Program, PPE/COPPE

Federal University of Rio de Janeiro

Rio de Janeiro, CEP 21949-972, BRAZIL

obraczka@ppe.ufrj.br

^bSociology Department and Environmental Studies Department, Division of Social Sciences

University of California in Santa Cruz (UCSC)

Santa Cruz, CA 95064, USA

Abstract

Urban coasts face increasing pressures on natural/human resources and increased need for improved coastal/environmental management efforts. Coastal managers are looking to integrated and transparent coastal/environmental management regimes and better mediate among different interests and maximize community/environmental benefits. This article focuses on a comparative analysis in two important coastal regions globally: the urbanized areas of the central coast of California, and the rapidly urbanizing and developing coastal lowlands of Rio de Janeiro, Brazil. Although many similarities could be found, our research shows very different outcomes in the coastal/environmental management systems of the two regions. While the system in California successfully integrates broad stakeholder/public participation, in Rio de Janeiro it still shows high levels of centralization and would benefit from greater opportunities for public participation, in permitting and in the decision-making process. The paper includes recommendations for strengthening capabilities/effectiveness of current processes in RJ's system, which authors argue could be also applied in other coastal regions.

Keywords: Coastal zone management and permitting; Coastal resources use and conflicts; California and Rio de Janeiro coastal areas.

Expanded Abstract

Coastal zones are unique bio-geographical areas, uniting land and sea. Coastal areas are highly valued environments for a range of ecosystem services, from recreation and economic development to maintenance of natural resource biodiversity. These areas are home to ecosystems of great biological and environmental importance, such as mangroves, coastal dunes and beaches, coastal wetlands, and fragile and diverse rocky intertidal areas, often essential to species reproduction and ecological health. Worldwide, coastal areas are also home to large and growing populations. This is the case of Brazil, in particular, its coastal state of Rio de Janeiro and the United States, in particular, its coastal state of California. According to the Brazilian Institute for Geographical Statistics (IBGE), 83% of the population of the state of Rio de Janeiro is concentrated in coastal areas. This trend is likely to increase in the future as indicated by the population growth rates of coastal municipalities such as Itaguai, Marica, and Rio das Ostras in Rio de Janeiro (IBGE, 2012; 2010). In the USA, about 70% of the population is expected to be living in coastal shoreline counties by 2020 (NOAA, 2013). Continued development and economic exploitation, ranging from agricultural and industrial development, to residential and tourism exploration threaten the viability of these places, and their irreplaceable, and often very fragile, natural resources, landscape.

As a direct consequence of the tension between economic growth and environmental protection, coastal areas require heightened public policy awareness and regulatory systems, e.g. more complex land use regulations, more elaborate development requirements as well as better environmental planning. Improved resource conservation measures are necessary to preserve the range of unique coastal settings, comprised of terrestrial and aquatic interfaces, along with the extensive natural landscapes and habitats, which are increasingly threatened (Jablonski and Filet, 2008). In Brazil, the last remainders of the Atlantic Forest biome stretch along the Atlantic coast. Its devastation is so great that it is now considered as one of the most endangered forests globally (Critical Ecosystem Partnership Fund, 2001). In both more and less developed areas, the lack of adequate planning and regulation has caused substantial loss of essential ecological resources, such as coastal wetlands and rocky intertidal areas. In the case of Brazil, particularly in the coastal areas of the state of Rio de Janeiro, the substantial loss of coastal mangrove forests has led to the loss of biodiversity, as well as the decline of important fishing stocks (Diegues, 1998).

It is common sense that trade-offs between different interests can create conflict. In many cases, such as California in the United States and Rio de Janeiro in Brazil, coastal environmental regulation seeks to achieve (sustainable) economic development along with natural resource protection. Motivated by the need of improvements in the current system, this paper analyzes coastal environmental policy management and implementation, and examines the effectiveness of coastal regulation in two lowland coastal regions, one in Brazil and the other in the United States, focusing specifically on the coastal management and environmental review and permitting processes. More specifically, this study compares the review and approval process used in the county of

Buzios and the coastal state of Rio de Janeiro in Brazil's Southeast Region with that of Santa Cruz and the state of California on the Pacific Coast of the United States, both regions facing multiple coastal development threats arising from human activities.

As part of a suite of complementary methods of data and information collection and analysis, the authors conducted limited semi-structured interviews with and collected limited survey information from local and regional stakeholders and experts, including coastal managers and other stakeholders. These personnel were from major governmental agencies, state, regional, and local, as well as from non-governmental and environmental organizations. The small group of key informants and experts represented important sectors within the political economy of coastal planning and management in both compared frames.

Although many similarities between the two locations are described and analyzed, this research focuses on the several differences found in order to highlight both the need and the opportunities for improving the effectiveness of local management and increasing the transparency of the coastal environmental permitting process in Rio de Janeiro. The study's primary conclusion is that there is a need to strengthen Rio de Janeiro's coastal regulatory and environmental permitting model, especially through additional measures to ensure a more transparent and participative process, together with the improvement of local governance components. In the state of Rio de Janeiro and in the coastal region of Buzios (Sun Coast/Baixadas Litoraneas Region), governance is much more "centralized," with strong federal and state responsibilities, and much weaker obligations and responsibilities at the regional or local levels. Despite on-going efforts to improve current practices and processes in Rio de Janeiro, current institutional practices and barriers prevent better coordination and integration among coastal, environmental and land use planning agencies and authorities, as well as active participation from stakeholders and the public.

In the other hand, much higher levels of co-management and decentralization have been identified in the US state of California. Overall, complex multi-level governance with shared responsibilities, involving the federal-, state-, and local levels, characterizes this decentralization of government. In addition, a strong civil society supported and monitored government agencies involved in coastal and environmental management. While Rio de Janeiro, Brazil relies on a more "top-down" national federal-local implementation structure, the governance model and experience in the United States and the state of California is one of a well-established federalism, and "shared terrain," with many state-held jurisdictional prerogatives. Especially in California, the state-local relationship is one of shared terrain, with a bias towards home rule and local control.

Building on the California experience, Rio de Janeiro should create further opportunities for the participation of local stakeholders in the decision-making process. To this end, it is essential to enable: (1) greater public access to information, (2) local and regional co-management and co-implementation of policies, and (3) increased policy compliance and enforcement.

References

Critical Ecosystem Partnership Fund, 2001. **Ecosystem Profile: Atlantic Forest Biodiversity Hotspot Brazil. Final** version December 11, 2001.

Diegues A. C., 1998. **Environmental impact assessment: The point of view of artisanal fishermen communities in Brazil.** Ocean & Coastal Management. 39, 119-133.

IBGE,2012.**Perfil dos Municípios Brasileiros.**

IBGE 2010. **Censo 2010.** Instituto Brasileiro de Geografia Estatística.

Jablonski S., Filet M. 2008 **Coastal management in Brazil – A political riddle.** Ocean & Coastal Management 51, 536–543.

NOAA, 2013 NOAA's State of the Coast. **National Coastal Population Report Population Trends from 1970 to 2020.** Department of Commerce, developed in partnership with the U.S. Census Bureau