

[DOI: 10.20472/IAC.2019.048.037](https://doi.org/10.20472/IAC.2019.048.037)

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THE INFLUENCE OF ENVIRONMENT REGULATION ON MARINE ECONOMY EFFICIENCY: EVIDENCE FROM CHINA

Abstract:

With the depletion of terrestrial resources and the development of marine science and technology, marine economy has become a new growth pole in the world economic development. After more than ten years of hard work, many coastal areas have seen significant improvements in their ecological environment. As an important marine country, China is not an exception. To analyze the influence of eco-environment governance policies on marine economy, this paper quantifies the relationship between environmental regulation and marine economic efficiency for 11 provinces (or municipalities) in China's coastal areas. The Super-Efficiency Slacks-Based Measure (SE-SBM) model is used to illustrate the marine economic efficiency considering undesired outputs. The results of the system Generalized Moment Method (GMM) regression support a U-shaped relationship between the two variables, with one threshold effect of the environmental regulation intensity. It is also verified the implementation of the environmental regulation policy has a time-lag effect. During the process of implementation, industrial structure optimization, scientific and technological innovation have different impacts on marine economy. The paper concludes with detailed explanation for the effects of environmental regulation and policy on marine economy development in China. Policymakers can use these insights to formulate appropriate environment policies that aim to realize marine ecological civilization.

Keywords:

environmental regulation; marine economic efficiency; threshold effect

JEL Classification: E60, K32, Q00