COASTAL ECONOMY OF RIO GRANDE DO SUL/BRAZIL: MEASUREMENT AND SECTORAL PROFILE

Topic: Sustainable Production and Consumption Policies
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The Ocean Decade, proposed by the Intergovernmental Oceanographic Commission (IOC) of UNESCO (United Nations Educational, Scientific and Cultural Organization), was declared by the UN in 2017 as the Decade of Ocean Science for Sustainable Development, spanning from 2021 to 2030. Its aim is to raise global awareness about the oceans' significance and foster international cooperation for ocean preservation. According to UNESCO (2020), oceans, covering 71% of the planet, are potent climate regulators, yet less than 5% of it is known. They sustain 3 billion people, provide 30 million direct jobs, and generate an annual wealth of US$ 3 trillion, positioning the oceanic region as the 5th largest economy globally. However, with the expansion of marine industries, conflicts of interest arise, underscoring the necessity of a more integrative approach for sustainable growth and maritime economy development.

Brazil possesses vast maritime potential, encompassing the Blue Amazon, a 4.5 million kmÂ² area. The Blue Amazon facilitates 95% of Brazil's foreign trade and holds approximately 90% of its oil and gas reserves (Brazilian Navy, 2021). Alongside established activities like fishing, oil exploration, and tourism, emerging sectors such as seabed mining, renewable energies, and biotechnology offer further opportunities for development.

Hence, this paper seeks to estimate an Input-Output Matrix with a CO2 emissions module to quantify the sectoral profile of Rio Grande do Sul's coastal region. Its objective is to formulate public policies aimed at reducing the region's climate vulnerability. The coastal zone of Rio Grande do Sul (ZCG) comprises over 30 municipalities, including Lagoa dos Patos lagoon, with an area of approximately 265 kilometers. With a population of about 1,488,819 people (IBGE, 2020), accounting for 13.03% of Rio Grande do Sul's total population, the ZCG boasts numerous beaches and Conservation Units, indicating environmental richness (Taim Ecological Reserve, Patos Lagoon and Mirim Lagoon). However, it is also the Brazilian state most affected by climate change, leading to economic and life losses due to natural disasters.

This work's significant contribution lies in quantifying the coastal economy's specific geographical and environmental segment, presenting concepts of coastal and marine economy, its GDP participation, and dominant activities, while striving for sustainable balance. These topics remain underexplored in international and national literature, hence the paper aims to address this gap. The results indicate that the region contributes 9.1% to Rio Grande do Sul's GDP, with its economic profile centered around agriculture, livestock, forestry production, fishing, aquaculture, trade, and vehicle repair. Achieving a sustainable economy necessitates growth and development within a sustainability and innovation framework. This entails restoring damaged ecosystems, ensuring integrated management, and fostering expertise across various segments, transitioning from a purely maritime economy to a blue maritime economy efficiently.

A major challenge is defining a regional maritime economy concept and establishing legislation to delineate maritime-related activities. Additionally, developing a strategic plan for economic and social development in Rio Grande do Sul, prioritizing collaborative governance, is imperative.