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Seeing fishing tourism as a means to achieve sustainable marine and coastal zone management

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Abstract

Coastal environments, as complex systems, are a valuable natural setting where intense economic activities take place. Their environmental values have been extensively researched due to their importance in maintaining high environmental quality. This discussion paper aims to promote the concept of fishing tourism as a strategy for preserving the safety and health of coastal environments. To this end, we present a conceptual framework outlining the content and benefits of fishing tourism within sustainable coastal zone management. This framework offers practical implications that can be applied to coastal settings in various countries. It is crucial to strike a balance between economic gains and environmental protection to ensure sustainable growth. This balance is basic to reaping benefits at the interface of nature and the economy, and effective environmental management and robust sectoral tourism policies are instrumental in achieving it.

Keywords: Fishing tourism, coastal zones, management, sustainability

JEL Codes: Q50; Q01; R58; Z38.

1. Introduction

Coastal zone management needs well-structured regional and national (and/or international) policies, given its importance in establishing sustainable development practices when exploiting natural resources. Environmental concerns are rooted in various interested parties' management of the coastal environment. These parties significantly impact the host society and communities (e.g., quality of life) that accommodate many economic activities related to the coastal zones and marine environments. Many researchers have recognized that coastal zones suffer from intense environmental pressures for various reasons, which generate serious problems such as resource use conflicts, resource depletion, and degradation (Turner et al., 1996; Noronha, 2004; Halkos and Galani, 2016; Halkos and Matsiori 2012; 2018a; 2018b).

It should be noted that in every attempt to grow economies, the socio-economic dimensions should be of high importance to safeguard sustainable development in the long term, especially in the tourism system (Halkos & Ekonomou, 2023; Ekonomou & Halkos, 2024). Furthermore, the coastal and marine environments are directly connected with vital issues that are tightly linked to the quality and quantity of the ecosystem benefits nature offers to our society. For instance, fish stocks, population and production, biodiversity and geodiversity issues, habitat conservation, and seabed and water quality status.

In light of such concerns, it would be essential to conceptually 'draw' how sustainable forms of tourism (e.g., fishing tourism) can help advance the environmental quality of coastal zones with socio-economic benefits without damaging the offered environmental 'merits' nature granted us. Hence, effective

resource management can be implemented, and environmental quality will advance the well-being of all living and non-living objects.

2. Integrated Coastal Zone Management

In the Food and Agriculture Legislative Study No. 93, [Suominen & Cullinan \(1994\)](#) argue that coastal zones are geographical entities that include terrestrial and submerged areas of the coast. The authors state that these entities are determined legally or administratively to apply coastal zone management. The same official document defines the coast as the geographical area of contact between the terrestrial and marine environments. This area is an indefinite boundary area that is appreciably wider than the shore.

Each natural resource calls for, if not instantly, wise practices (e.g., economic practices) and holistic management approaches that will not leave unnoticed nature's carrying capacity and limits to growth. This is especially evident in coastal destinations where the mass tourism model has damaged valuable coastal and marine resources, whereas construction activity and human intervention did not adjust to the principles of sustainable development.

Hence, an integrated approach is highly important to limit environmental degradation and ensure sustainable practices and viable economic schemes to protect the coastal and marine environments. The framework of Integrated Coastal Zone Management (hereafter ICZM) is a challenging but promising pathway to systemically and holistically align sectoral policies (e.g., the tourism sector) and the interests of various stakeholders. Coastal and marine tourism have a central role in these attempts since they extensively use these resources for development reasons and expansion targets.

The World Bank (1993) conceptualizes the ICZM as a governmental process that includes legal and institutional frameworks required to guarantee that management and development plans for coastal areas are integrated with social and environmental goals made with the participation of those affected. The European Commission (1999) also defines the content of ICZM, stating that it is responsible for the dynamic, continuous, and iterative processes to advance sustainable coastal zone management using exhausted environmental information and relevant thorough analysis (Sarda et al., 2005).

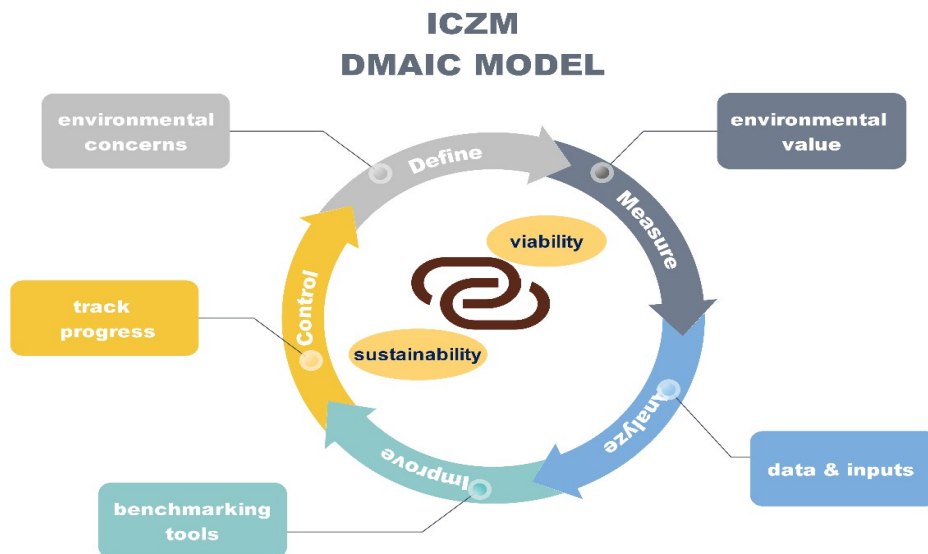
The fundamental target of ICZM is to maximize the benefits provided by coastal zones, minimizing the conflicts and harmful effects of activities upon each other to keep a balance between development and protection (Lawrence, 1997). In ICZM, ‘integrated’ concerns all relevant sectors, policies, and administration (Sano, 2009). Practically, since sustainable natural resource management constitutes an integrated process, the fundamental role of ICZM is to structure and support actions for sustainable coastal development.

All these well-recognized approaches to conceptualizing the meaning and importance of ICZM can be parts of robust decision-making processes. ICZM can largely serve, due to its applicability and interaction with socio-economic and natural systems, as a means of implementing effective coastal planning and development processes. These processes can be applied in the field, generating practical implications for multiple sectors (e.g., fishery tourism). Interestingly, Murthy *et al.* (2001) argue that many environmental and socio-economic issues stem from unstructured and non-integrated sectoral development activities resulting in poor coastal management. Supportively, commitment and integrated management are demanded to ensure a thorough and detailed evaluation of functions, goods and

services by stakeholders regarding coastal ecosystems (Mokhtar et al., 2003). Moreover, Davis (2004) highlights the role of regional planning in coastal programs regarding future effects on coastal resources.

Furthermore, ICZM is an interdisciplinary and continuous (iterative) process; it pursues to establish equilibrium across environmental, economic, social, cultural, and recreational aspects. This intent should seriously consider the limits set by natural dynamics (Basraoui et al., 2011). Attention should be paid to coastal issues that affect the proper implementation of ICZM. Indicatively, these issues relate to tourism development, beach use, marine protected areas, water quality, and marine and coastal construction activities. They are widely connected with resource conflicts (e.g., uses and users) and unsuccessful (ineffective, poor) coastal management. Figure 1 presents interrelations concerning the ICZM processes under the DNAIC (Define, Measure, Analyze, Improve, and Control) model (roadmap for Six Sigma).

Figure 1: Processes included applying effective ICZM.



Source: Six Sigma Methodology; authors' elaboration.

Thus, an opportunity to look into how ICZM interrelates with the good ecological status of resources provides an advantage to gain economic benefits (e.g., viability) without degrading the marine and coastal environment through sustainable practices (e.g., fishing tourism) with a long-term perspective.

3. Fishing Tourism

Fishing tourism constitutes a niche but burgeoning sector in the broader context of the tourism industry, providing a unique opportunity to investigate the dynamics of the experience economy (Yfantidou et al., 2024). Jafari (2002) offers a definition of fishing tourism. The author states that fishing tourism is a “set of activities carried out by professionals in order to differentiate their incomes, promote and valorize their profession and socio-cultural heritage, and enhance sustainable use of marine ecosystems by means of boarding non-crew individuals on fishing vessels”.

To state the importance of fishing tourism in the economic system, we mention an analysis implemented by [Future Market Insights \(FMI\)](#). Based on this analysis, the sector in 2023 accounted for US\$ 72,532.2 million, whereas forecasts say that in 2033, it will reach US\$ 211,056.7 million. Also, the [Agriculture, Forestry, and Fishery Statistics \(Eurostat, 2020\)](#) reported that in 2018, in the European Union (EU-27) and in the primary fisheries industry, 163,000 people was estimated that were employed.

Fishing tourism matches recreation and entertainment, environmental knowledge, and environmental awareness on the demand side, whereas it links additional income and employment opportunities and environmental conservation and relevant infrastructure on the supply side. Fishing tourism requires the participation of potential visitors who need to interact with the marine world and follow the daily

program of a professional fisherman. They have the opportunity to interact directly with the sea and the catches and recognize what environmental quality means in the field.

Fishing tourism provides additional inputs to the offered tourism experience. It can be combined with local traditions, culture, and history, connected with food events and gastronomy, supplied by healthy nutrition habits and lifestyle. One particular advantage that fishing tourism provides is that it can be experienced in a wide range of aquatic destinations, such as seas and lakes, rivers, and lagoons, where the fishing, farming, and breeding of aquatic organisms can be practiced (Yfantidou *et al.*, 2024).

Additionally, this type of tourism can be introduced as a core part of structuring tourism products at a national or subnational level. An interesting point of view is that fishing tourism primarily concerns small-scale fishing communities in local-regional areas. Fishing tourism can be considered as a means of redefining and redirecting a proposed tourism product, always in terms of sustainable coastal and marine management. Not to mention that it is a valuable option to perform ICZM in the context of sectoral tourism policies in the marine environment and stress the interconnection or closeness with other types of tourism (e.g., coastal eco-tourism, marine-based tourism, coastal tourism).

From the broader concept of special tourism forms, small-scale fisheries help improve the tourism potential, creating positive effects on local fisherman communities (e.g., income and employment). This is highly important if we consider that many coastal fishers face the dilemma of fisheries collapse, search for additional income, and think the difficulty in sustaining fishing livelihood (Salas *et al.*, 2007).

Furthermore, small-scale fisheries should find ways to tackle issues such as inappropriate incentives, unsustainable fisheries, and weak governance (Greboval, 2002).

Environmental benefits from fishing tourism include biodiversity and geodiversity conservation, providing a good ecological example when practicing economic activities, and active community involvement. The concerted action of small-scale fisheries and tourism systems (cooperation, coordination, and synergies) will create tangible and intangible benefits, which, in turn, can help advance additional attempts for further sustainable development, new tourism offerings, and continuous improvement.

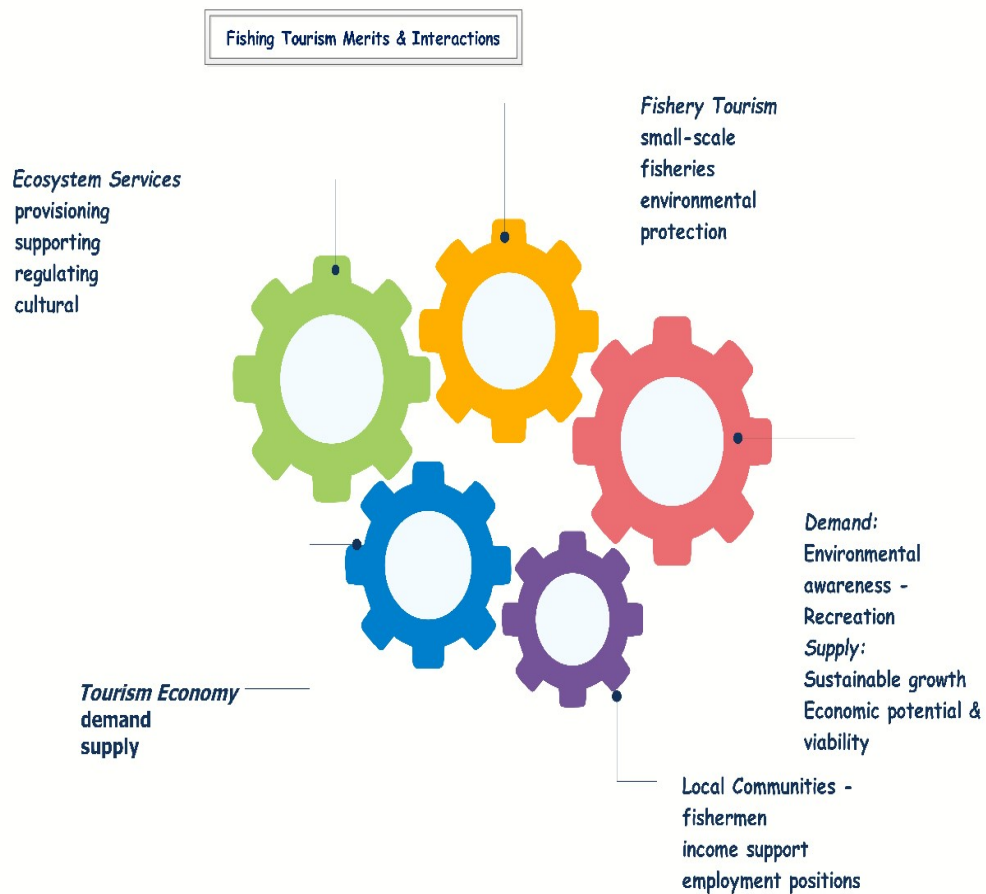
Fishery tourism can be advanced by benchmarking other fishery tourism destinations and gaining relevant feedback to improve related efforts through well-defined and structured action plans. Benchmarking is a methodology that, if implemented properly, can help evaluate and, especially, compare an organization's performance rates against those who are recognized as best performers in a specific industry (Barkley & Saylor, 2001). Figure 2 presents the interrelations of fishery tourism with the socio-ecological and economic systems.

We should bear in mind that multidisciplinary approaches are required to be employed, and the socioeconomic and biophysical aspects and interdependence of coastal systems must be thoroughly discussed (Gentile & Mongruel, 2015). ICZM offers such an approach since it considers all dynamics, determinants, and core factors that affect the overall performance of marine and coastal environments. Understandingly, ICZM focuses on potential changes or shifts in environmental

status, such as in quantity and quality, natural processes and functions, in marine-coastal system performance.

Then, this new situation might generate high or low, positive or negative, tangible or intangible, beneficial or adverse effects on socio-economic systems and the good ecological status of resources of interest. As a direct consequence, monitoring and controlling processes should be in progress to observe if these tourism practices are implemented wisely. This is particularly important given climate change conditions and relevant impacts on marine and coastal resources.

Figure 2: Interrelations regarding fishing tourism, the environment, and the economy



4. Conclusions

ICZM represents a holistic framework for efficiently managing resources (e.g., use and allocation) and implementing environmental plans that seriously consider environmental risks and concerns. Moreover, it provides a ‘knowledge platform’ armed with various disciplines of many scientific fields to view current environmental problems interactively. A core element of this effort is attributed to the tourism industry, which widely exploits marine and coastal environments globally. In this context, fishing tourism, especially small-scale fisheries, can help improve environmental quality, whereas it contributes to improving the quality of life of local communities. It motivates local fishermen to supply their income and creates additional employment opportunities.

By implementing well-organized approaches, economic viability will be embedded in the context of sustainable development with a long-term perspective, matching business pursuits with the good ecological status of natural resources. This is the only way to experience a prosperous future, particularly for local communities that might seek ways to improve their quality of life.

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