

## **Coastal tourism a tool for socio-ecological resilience: investigation of challenges and opportunities of tourism destinations in New Zealand**

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Tourism as an activity represents the dilemma of the missing balance between a community's need for economic revenues, and concerns about sustainability of environmental resources. New Zealand is used as an example of that missing balance, as coastal tourism is gaining more importance in the national economy while creating more pressures on socio-ecological systems. This study addresses the missing balance through investigating the relationship between Integrated Coastal Zone Management (ICZM) practice and tourism activity.

This study established a mechanism for assessing tourism's contribution in increasing coastal resilience and eventually achieving a form of sustainable coastal development. This study undertook an initial assessment using five case studies in New Zealand and used them for a preliminary test of the proposed mechanism.

This study's aim carry great importance in a world of change, in an era where environmental threats increase rapidly. The coastal resources specifically are facing serious threats in a global scale ranging from rising sea levels due to global warming to natural hazards like tropical cyclones. In addition to these hazards, our human activities have proven to be equally destructive to these valuable resources through pollution and consistence degradation of these coastal areas. These threats carry great significance because more than three quarters of the world's population today live near coastal areas, and more than 100 metropolitan cities are located on

coastlines (Cooper *et al.*, 2008). Such conditions create a global problem threatening one of our most vulnerable environmental resources, our coastlines. With all these threats, intimidating our environment, it becomes necessary to think about creative ways to maintain the sustainability of natural resources.

The multidisciplinary character of tourism activity and its complex relationship with ICZM, coastal management is by its nature a qualitative topic, in the other hand tourism is always based on quantitative statistics (tourism forecasts, revenues, indicators). This complexity require using different methods for data collection and analysis to have comprehensive outcomes that recognise the main issues instead of being submerged within details. Therefore, the mixed research methods were used in assessing the socio-ecological resilience in the selected case studies would help in achieving the research aim.

The research methods are based on triangulation; using qualitative methods represented through content analysis of statutory documents in national, regional and local levels. In addition, to responses from interviews with representatives of the management agencies in the coastal areas; is essential and to ensure the reliability of results, along with usage of some existing indicators assessment.

Using case studies approach to answer the research questions. Five main areas were selected as case study locations: Akaroa (Canterbury), Paihia and Waitangi area (Bay of Islands), Whitianga (Coromandel Peninsula), Picton / Marlborough Sound, and Abel Tasman National Park. These locations were selected based on the following factors: a) representativeness of different coastal management schemes, b) the importance to the New Zealand economy, c) the development pressure on coastal areas generating environmental issues, and d) evidence of efforts to restore ecological values. These sites were also selected to reflect the diversity of coastal tourism development types and coastal management approaches.

The status of case studies was investigated through site visits, interviews and document analysis. The analysis of case studies used the Holling's adaptive cycle and Butler tourism life cycle. These highlighted a need to create new set of indicators to assess the complexity of socio-ecological systems in coastal tourism sites.

The findings were formulation of new set of indicators that were combination of existing, modified and new indicators, which used the stages of Holling's cycle and Butler's cycle as a guide. A framework was then established that connected with the set of new/ modified indicators in a coherent integrated format. The last stage of the proposed mechanism was a preliminary reassessment of case studies according to the new indicators list. Based on the analysis and using the Holling's adaptive cycle, future trends of coastal tourism and its ability to enhance ecological systems in these sites were examined. This study outcome focuses on the creation of a set of indicators assessing coastal development in these areas, connected with a suggested mechanism to assess tourism's contribution to socio-ecological resilience and the delivery of sustainable outcomes.