(ID 214)

Evaluation of Potential Coastal Resources for Promotion of Ecotourism, Climate Resilience and Blue Economy Development in the Vadamarachchy East Region of Jaffna, Sri Lanka

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Abstract

Coastal resources have a great potential for promotion of ecotourism and blue economic development, and they act as a natural defence playing a vital role in mitigating the impact of coastal hazards. These resources are important to conserve and reduce coastal disaster impacts, ensuring the human security, sustainability of livelihood and blue economy and strengthen climate resilience. The present study area is situated on the North-eastern coast of Jaffna District. The study attempted to evaluate the resource potentials for the promotion of ecotourism, climate change adaptation and blue economy development in the Vadamarachchy East area. The detail survey was conducted between 2016 to 2019. The Multi Criteria Decision Method (MCDM) and Criteria ranking method in GIS were used considering aspects of sand dunes, beaches, mangroves, birding sites, and cultural places for evaluating the potential status of ecotourism. The evaluation process for potential sites were conducted based on several criteria *viz.* tourist preferences, proximity to residential areas, tourist accommodation, distance from roads, scenic beauty, distribution, and available facilities. Risk analysis was performed to identify the hydro-climatic disaster risk areas using Semi structured questionnaire survey. Focus group discussions were conducted for identify the challenges in protecting the coastal resources. The final suitability map for ecotourism status was generated through Multi criteria analysis and vulnerable disaster risk areas were identified associated with sand dunes. The findings indicate that Vadamarachchy east area represents high potential based on sand dunes, bird diversity and cultural places. *Casuarina* forest of Manatkadu, Chundikulam estuary, beaches and blue economic resources are key features for ecotourism promotion. Sand dunes and casuarina forest are major protection barriers for resilience from hydro-climatic disaster. The study area from Vallipuram, and Manatkaddu to Chundikulam is associated with deep sea fishing for blue economic development. Unfortunately, at present, these areas are being threatened by climatic disasters due to unsustainable and illegal sand mining operations and lack of conservation and governance mechanism of vegetation. The study provided a set of recommendations to increase the effective use of ecotourism potentials, including sand dunes and coastal line vegetation because it can contribute to reducing negative effects of the climatic disaster and ensure the sustainable blue economy development. Hence, this study emphasized the multi stakeholder agencies' participation for development planning, resource management which are required to reduce impact of climate change, increase adaptation, use the coastal resources for ecotourism promotion and blue economic development in sustainable manner.

Keywords: Blue economy, Climate adaptation, Ecotourism, Sand dunes, Vadamarachchy East

Proceedings of the 28th International Forestry and Environment Symposium 2024 of the Department of Forestry and Environmental Science, University of Sri Jayewardenepura, Sri Lanka

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