

## Low Carbon Tourism Management: Strategies for Climate-Friendly Tourism of Koh Mak, Thailand

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**Abstract :** Nature-based tourism is one of the fastest growing industries that can bring in economic benefits, improve quality of life and promote conservation of biodiversity and habitats. As tourism develops, substantial socio-economic and environmental costs become more explicit. Particularly in island destinations, the dynamic system and geographical limitations makes the intensity of tourism development and severity of the negative environmental impacts greater. The current contribution of the tourism sector to global climate change is established at approximately 5% of global anthropogenic CO<sub>2</sub> emissions. In all scenarios, tourism is anticipated to grow substantially and to account for an increasingly large share of global greenhouse gas emissions. This has prompted an urgent call for more sustainable alternatives. This study selected a small island of Koh Mak in Thailand as a case study because of its reputation of being laid back, family oriented and rich in biodiversity. Importantly, it is a test platform for low carbon tourism development project supported by the Designated Areas for Sustainable Tourism Administration (DASTA) in collaboration with the Institute for Small and Medium Enterprises Development (ISMED). The study explores strategies for low carbon tourism management and assesses challenges and opportunities for Koh Mak to become a low carbon tourism destination. The goal is to identify suitable management approaches applicable for Koh Mak which may then be adapted to other small islands in Thailand and the region. Interventions/initiatives to increase energy efficiency in hotels and resorts; cut carbon emissions; reduce impacts on the environment; and promote conservation will be analyzed. Ways toward long-term sustainability of climate-friendly tourism will be recommended. Recognizing the importance of multi-stakeholder involvement in the tourism sector, findings from this study can reward Koh Mak tourism industry with a triple-win: cost savings and compliance with higher standards/markets; less waste, air emissions and effluents; and better capabilities of change, motivation of business owners, staff, tourists as well as residents. The consideration of climate change issues in the planning and implementation of tourism development is of great significance to protect the tourism sector from negative impacts.

**Keywords :** climate change, CO<sub>2</sub> emissions, low carbon tourism, sustainable tourism management

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