

Research Article

Sustainability and Sacred Forests: The Cultural-Ecological Role of the Phutai People's Forest in Kalasin, Thailand

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ABSTRACT

This study examines the Khambong spiritual forest, focusing on its connection to nature, culture, and sustainability. The forest reflects the Phutai community's spiritual beliefs and close bond with the natural world. It hosts 45 tree species from 24 families, with *Castanopsis piriformis* Hickel & A. Camus playing a key role in its ecosystem. The forest provides critical ecological services, sequestering 156.76 tC/ha of carbon and producing 1,003.27 tO₂, significantly contributing to climate regulation. Additionally, it contains 29 medicinal species and 7 species used for both medicine and food, preserving traditional knowledge and supporting local well-being. These findings highlight the forest's importance and offer guidance for sustainable management strategies. The Khambong spiritual forest demonstrates the balance needed for resilient ecosystems and provides a model for integrating cultural wisdom with modern conservation methods. Further studies are encouraged to explore its adaptability and long-term ecological and cultural contributions.

Key words: Khambong spiritual forest, Phutai community, Carbon sequestration, Traditional knowledge, Sustainable forest management

