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KOH KRED, NONTHABURI PROVINCE

PRISANA MUTCHIMA : THE APPLICATIONS OF GEOGRAPHIC  
INFORMATION SYSTEMS IN DETERMINATION OF POTENTIAL AREAS FOR  
ECOTOURISM DEVELOPMENT: A CASE STUDY OF KOH KRED (KRED ISLAND),  
NONTHABURI PROVINCE, THAILAND. THESIS ADVISORS : THANAKORN UAN-  
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The objectives of this study are to apply Geographic Information System (GIS) in determination of potential areas for ecotourism development and to propose ecotourism development guidelines in Koh Kred (Kred Island), Nonthaburi by using ArcView GIS Version 3.1. Potential Surface Analysis (PSA) and Linear Combination Method is used in the study to evaluate the potential of tourist facilities in the areas and the potential of ecotourism areas as well as to determine potential areas for ecotourism development.

In the potential evaluation of tourist facilities areas, various factors were studied including port, road/path, canal, public telephone, and institutional land are considered according to the importance of each factor. The determination of distance from factor can be divided into 2 cases: 50 m and 100 m. In case 1 (50 m), the high, moderate and low potential areas occupy 0.084, 0.659 and 2.929 km<sup>2</sup> or 2.29, 17.95 and 79.76% of the study area, respectively. In case 2 (100 m), the high, moderate and low potential areas occupy 0.579, 1.642 and 1.452 km<sup>2</sup> or 15.77, 44.71, and 39.52% of the study area, respectively.

As for the potential evaluation of ecotourism areas, various factors including culture and customs of the community, history and archaeology, art, scenery, naturalness, and accessibility. The result shows that the tourist attraction in Koh Kred can be classified as those of high, moderate and low potential. The findings indicate that as a pottery village, Poramai Yikawat Temple, and Sao Thong Tong Temple are high potential tourist attractions. Pailoam Temple, Chim Plee Temple and Palelai Temple are moderate potential tourist attractions while Salakool Temple and orchards are low potential tourist attractions.

Regarding the potential areas for ecotourism development, it is determined by overlaying the potential areas for tourist facilities and the potential areas for ecotourism. The study finds that in case 1 (50 m), the high, moderate and low potential areas occupy 0.071, 0.577 and 3.079 km<sup>2</sup> or 1.92, 15.47, and 82.61% of the study area, respectively. In case 2 (100 m), the high, moderate and low potential areas occupy 0.096, 1.843 and 1.786 km<sup>2</sup> or 2.58, 49.48, and 47.94% of the study area, respectively.

The ecotourism development guidelines proposed are varied according to the potential of area and the criteria of evaluation.