

# Impact of Sea Level Rise on Tourism Carrying Capacity in Thailand

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Sea level rise due to climate change affects beaches, which produce high recreational value in the economy. The tourism carrying capacity (TCC) assessment is one of the tools to determine the management capacity of a beach. Pattaya beach represents the character of a well-known beach in Thailand, while Chalatat beach represents the character of domestic tourism at beaches in Thailand. This study detected the shoreline position from Google Earth images with tidal correction to evaluate beach areas. The Bruun rule was used for shoreline projection. TCC was calculated by using the beach area, correction factors, and management capacity. The results find that the current effective carrying capacity is approximately 200,000 for Pattaya beach and 49,000 for Chalatat beach. Although the Chalatat beach areas are larger than Pattaya, the effective carrying capacity of Pattaya beach is more extensive than the effective carrying capacity of Chalatat beach for all situations because TCC is affected by beach areas, correction factors, and management capacity. Because the beach areas experience the effect of sea-level rise, protection against future beach loss should be considered for coastal management.

Keywords: climate change, sea level rise, tidal correction, Bruun rule, tourism carrying capacity