

# Irrigation in South Thailand as a Coping Strategy against Climate Change: Past and Present

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## Abstract

This chapter first summarises data on the climatic history of South Thailand in the past 1,500 years, covering events that have influenced hemispherical climate, including South and Southeast Asia, with particular attention to localised impacts. With the context of past climate change thus established, the structure and operation of the ancient irrigation works of the Satingpra Peninsula, South Thailand are discussed in the specific environment of the Kra Isthmus and ecotone. The long history of expansion and contraction of the ancient irrigation system of the Satingpra area, 6th to 14th century, provides our only record of the ancient farmers' efforts to cope with climate change in the past. In conclusion I present the results of the current programme to restore parts of this system and the impact it again has on modern farmers in the area.

## 1 Introduction

This chapter deals with an ancient irrigation system in South Thailand, discovered and studied by the author and her research group in the decades of the 1970s and 1980s. In order to understand its role as a set of coping mechanisms, I place its stages of expansion and decline in the context of what is known about

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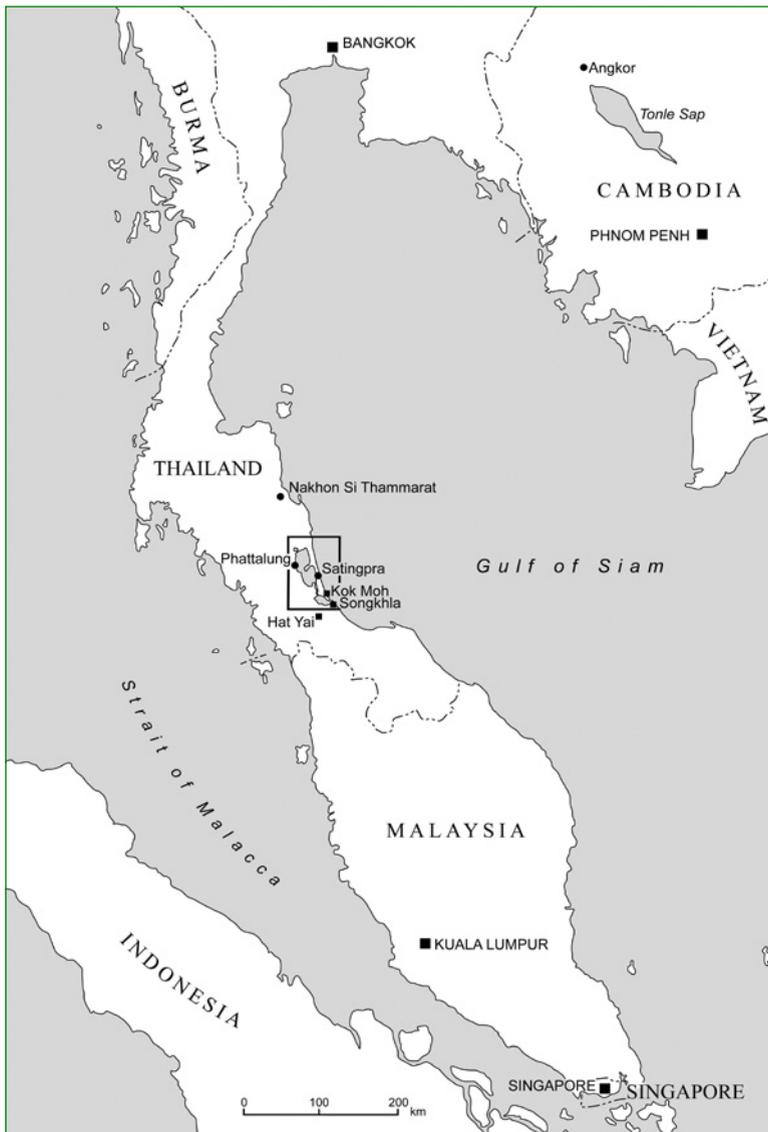


FIGURE 4.1 *Map of Thailand showing the location of the Great Lakes and the Satangpra Peninsula<sup>1</sup>*

climate change in Southeast Asia in the first and early second millennium CE. Recent research has revealed very complex conditions of weak monsoons affecting much of Asia over long periods, but punctuated by extreme and sudden

<sup>1</sup> Redrawn by Philip Stickler, 2012 from data © Janice Stargardt.