



Chiang Mai University



Exploring the Historical Narrative and Determinants of Flood Disasters in Sukhothai Province, Thailand

Supapit Pipatrattanathaworn (supapit.ing@gmail.com),

Titaya Sararit

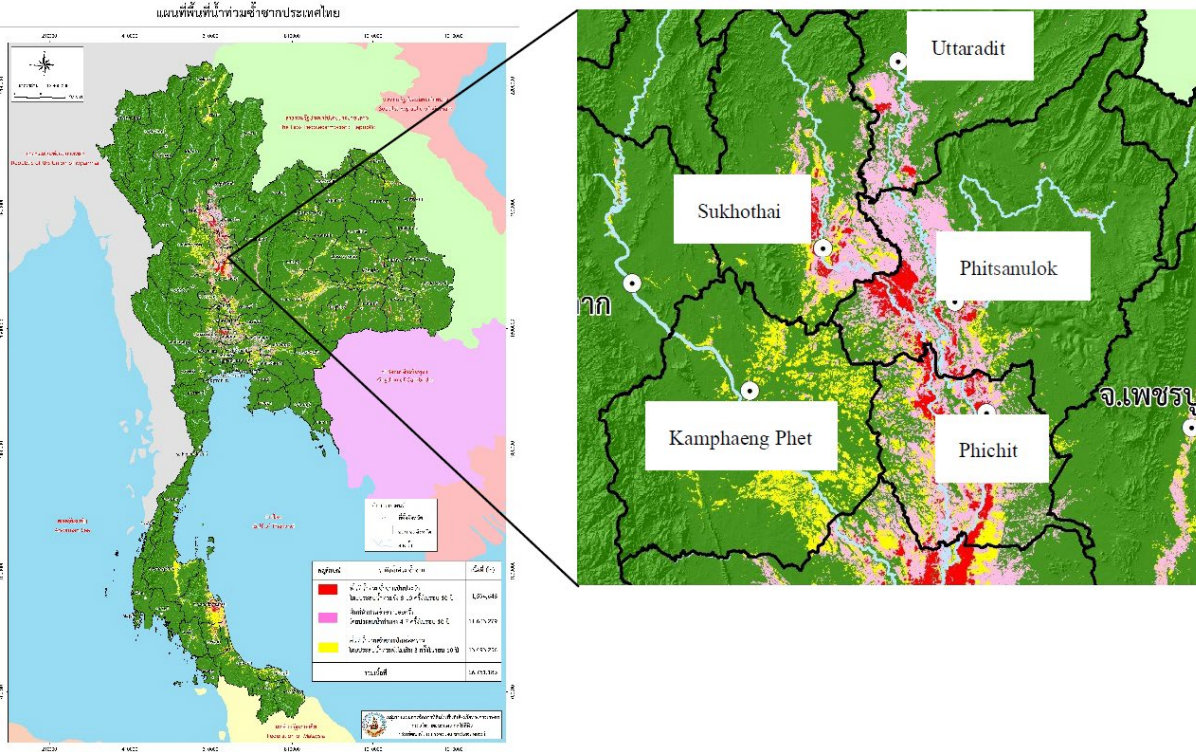
Department of Architecture, Chiang Mai University, Chiang Mai, Thailand

Yom River
Sub River



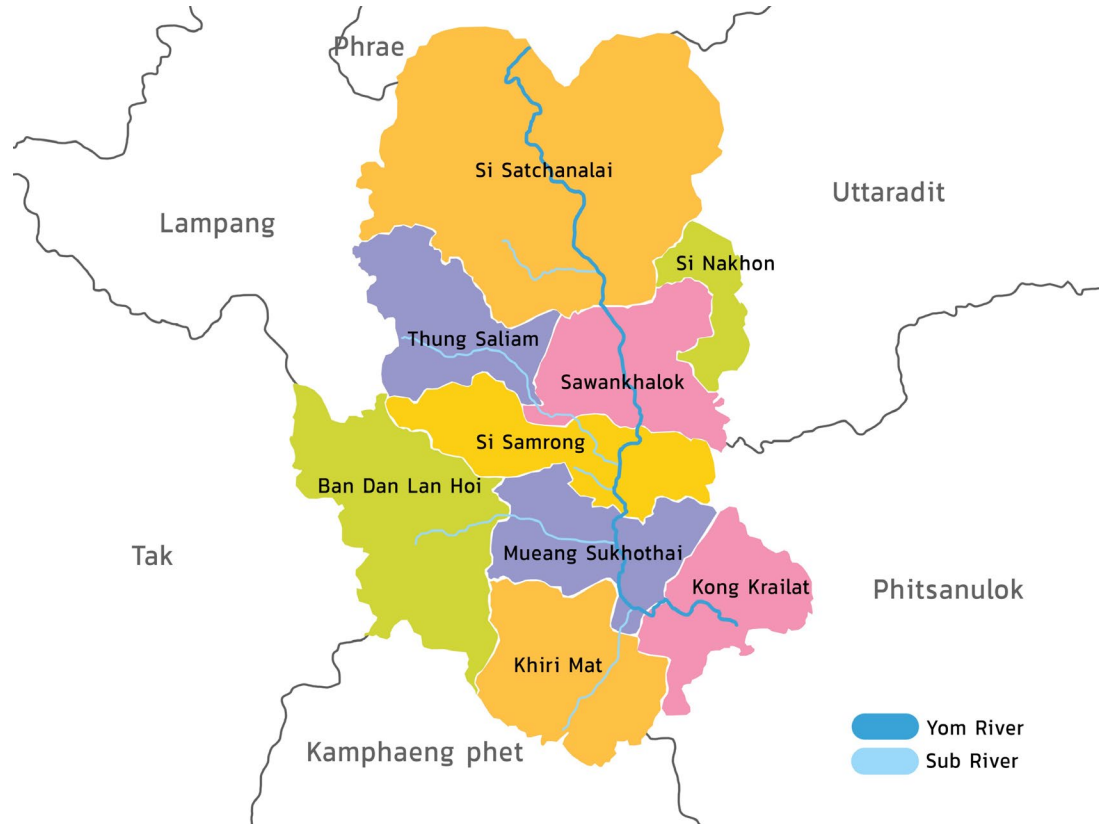
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Introduction

In Thailand, annual floods are a major concern, exacerbated by heavy rainfall from May to October, intensified by global warming. These floods disrupt daily life, damage property, and pose health risks due to contamination of water sources and the spread of diseases. Efforts to address these challenges are ongoing, but sustainable measures are needed. In 2023, Sukhothai experienced significant floods, affecting agriculture and tourism, its primary economic sectors. Despite not reaching the severity of the 2011 Thailand flood, Sukhothai faces flood issues annually due to its topography and the Yom River. Addressing these challenges is crucial for the region's well-being and economic stability.



Background:

Sukhothai Province, known for its rich history spanning over 700 years, is driven economically by tourism to its ancient sites and its agricultural sector. With half of its 6,596 square kilometers dedicated to agriculture, Sukhothai's topography includes lowlands, plateaus, and the vital Yom River, shaping the landscape. Bordering provinces include Phrae, Kamphaeng Phet, Uttaradit, Phitsanulok, Tak, and Lampang.

Water Resources:

The Yom River is Sukhothai's primary water source, crucial for agriculture and consumption. Originating from steep upstream regions, it faces challenges with water level fluctuations, leading to seasonal flooding issues. Heavy rains swell the river, causing flooding in low-lying areas, while the dry season sees reduced water levels, impacting agricultural activities.



Thairath, 2022 <https://www.thairath.co.th/news/local/north/2516710>

Objective:

1. Understand Housing Damage:

1. Assess severity of flood damage to houses in Sukhothai.
2. Identify specific housing problems during floods.

2. Learn about Floods in Sukhothai:

1. Understand flood patterns, causes, and impacts.
2. Explore factors contributing to flooding in the region.

These objectives aim to address housing challenges during floods and improve overall flood resilience in Sukhothai.



Thairath, 2022 <https://www.thairath.co.th/news/local/north/2516710>

Literature Review:

In 2023, Sukhothai experienced severe floods due to the absence of a dam on the Yom River, exacerbating flooding during the rainy season. The province's basin-like topography facilitates water accumulation from neighboring areas. Factors such as the Yom River's low slope and lack of water management infrastructure contribute to rapid flooding. The impacts of floods in Sukhothai persist through immediate, ongoing, and post-flood periods, affecting homes, economy, and community health.

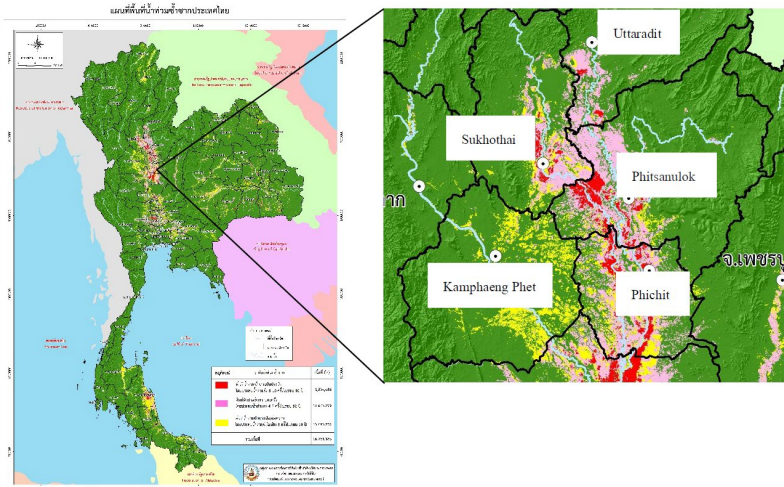


Factors Affecting Flooding:

- 1. Basin-like Topography:** Sukhothai's shape facilitates water accumulation during the rainy season.
- 2. Yom River Characteristics:** The river's low slope and absence of dams lead to flooding during heavy rains and insufficient water retention in the dry season.
- 3. Water Management:** The absence of dams along the Yom River intensifies flooding, impacting multiple provinces along its course.

Effects of Floods:

- 1. Immediate Impact:** Rapid onset of floods causes immediate damage to homes.
- 2. Impact During Flood:** Prolonged flooding leads to economic consequences and water-borne diseases.
- 3. Impact After Flood:** Dynamic water levels and ongoing challenges in recovery and repair persist after floods subside.



Suggestions:

Further exploration of existing literature emphasizes the urgent need for flood management strategies in Sukhothai. Empowering the local population through awareness and preparedness initiatives can enhance resilience to recurrent flooding, contributing to community safety and well-being.

These findings underscore the pressing need for comprehensive flood management strategies in Sukhothai, focusing on infrastructure development, community preparedness, and ongoing monitoring and response efforts to mitigate the impact of recurring floods. Promote guidelines for preventing and solving flood problems for both the government and local people.



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