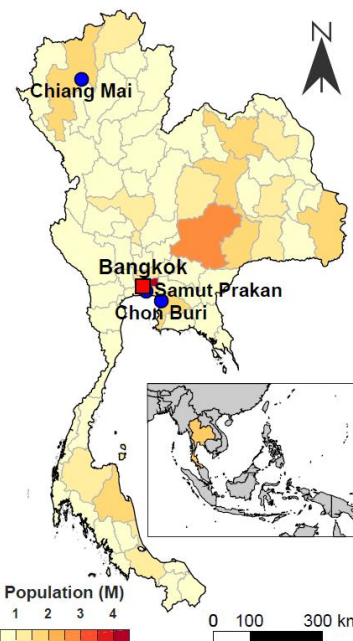


Social Indicators (2019)

Population (million) ¹ :	69.42
Population density (km ⁻²) ² :	136
Population growth rate (% yr ⁻¹) ³ :	0.55
Urban population growth rate (% yr ⁻¹) ⁴ :	3.11
Urban area growth rate (% yr ⁻¹) ⁵ :	2.96
Human Development Index ⁶ :	0.765
HDI Rank ⁶ :	77/189
Largest cities by population ⁷ :	Bangkok, Samut Prakan, Chon Buri, Chiang Mai

Geography

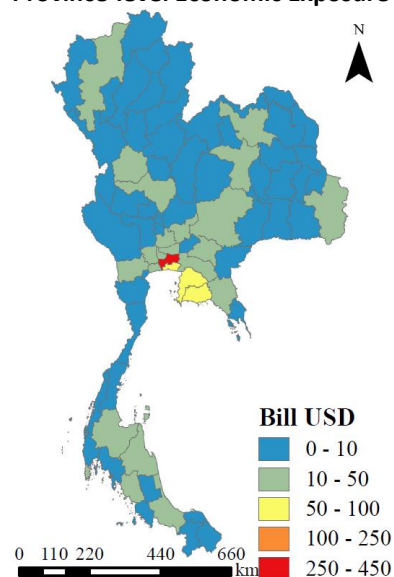
Land area (km ²) ⁸ :	510,890
Land area below 5 m MSL (%) ⁸ :	2.9
Length of coastline (km) ⁹ :	3,219
Terrain ⁹ :	Central plain, Khorat Plateau in the east, and mountains elsewhere
Major river systems ¹⁰ :	Mekong, Chi, Mun, Chao Phraya



Economic Indicators (2019)

GDP (million USD) ⁸ :	504,993
GDP PPP (million USD) ⁸ :	1,322,706
GDP per capita, PPP (USD) ⁸ :	19,051
Agriculture (%)	8
Industry (%)	35
Services (%)	57
Exposure (Billion USD) ¹¹ :	1,404
Primary (%)	6
Public (%)	7
Industry (%)	20
Commercial (%)	24
Residential (%)	43
Gross capital stock (Billion USD) ¹² :	1839
Insurance density (USD) ¹³ :	85.54
(Non-life premium in USD per capita)	
Insurance penetration (%) ¹³ :	1.30
(Non-life premium in USD as a percentage of GDP)	

Province-level Economic Exposure



Description of a recent major event

2011 Flood: Between July and December 2011, Thailand experienced its worst flooding in years, leaving more than 800 people killed and causing total losses exceeding 40 billion USD¹⁴. The floods disrupted manufacturing operations in Thailand, with many industrial estates and companies suffering inundation damage. 2011 was the wettest year for Thailand in 61 years (1951-2011), with record rainfall in March (369% above normal), followed by high rainfall (25% above normal) during southwest monsoon and from the remnants of four tropical storms (Haima, Nock-Ten, Haitang, Nalgae) crossing the north between June and October^{15,16}. This combined with insufficient management of the main dams led to a record total discharge of the Chao Phraya River at Nakhon Sawan from June-October 2011 (232% of the 1956–1999 average)^{16,17}, breaches in flood control structures, and severe flooding. The flooding was described as the world's fourth costliest disaster as of 2011 according to the World Bank.

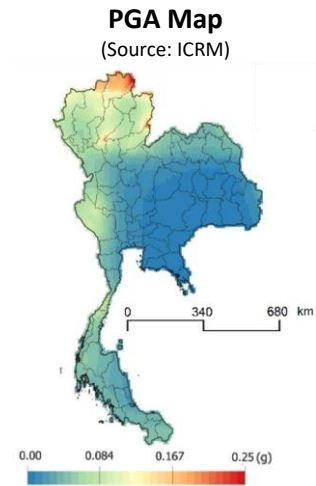
Recent Major Loss Events¹⁴

Year	Event	Magnitude or Affected area	Deaths	Total loss (bill. USD)
2017	Flood	50020 km ²	96	1.0
2014	Flood	NA	15	NA
2013	Flood	312091 km ²	61	0.48
2011	Flood	96785 km ²	813	40
2004	Tsunami	M 9.1, MMI III	8345	1.0

Major Fault Systems

The tectonic framework of Southeast Asia is a result of the collision between Indo-Australian and Eurasian plates of which Thailand occupies an intraplate setting within the Eurasian plate. The southern Thailand is situated over the stable Sunda Plate, which has often been considered as an area of low and sparse seismicity. A number of small to medium-sized earthquakes have been identified in northern Thailand, which generated ground shaking in MMI of VI to VII scale¹⁸.

There are a large number of active fault zones in northern Thailand: Lampang-Thoen, Mae Chan, Mae Tha and Phrae fault zones. Towards the western Thailand, the major faults are Mae Hong Sorn-Tak, Sri Sawat and Three Pagoda fault zones. The major faults closer to Bangkok are Three Pagodas Fault and Sri Sawat Fault¹⁹.



Meteorology

The annual percentage of rainy days in Southeast Asia varies from 30% in Central Thailand and Cambodia to 75% in Central Borneo. The rainfall variability is mainly determined by the large-scale monsoon systems, intra-seasonal oscillations, and the complex terrain. Southeast Asia experiences two monsoons: the southwest monsoon from June to September and the northeast monsoon from November to March. June-August months form the main rainy season in continental Southeast Asia, while December-February months are the rainy months south of 5°N.

Much of rainfall in Thailand is received during the southwest monsoon, particularly during the months of August and September. During these months, the northern Thailand is also influenced by tropical depressions and typhoons. The northeast monsoon months are dry in most parts with an exception of south-eastern Thailand which receives large amount of rainfall.

Climate classification²⁰: Tropical savannah in the north and central parts, and tropical monsoonal climate along southwest coast

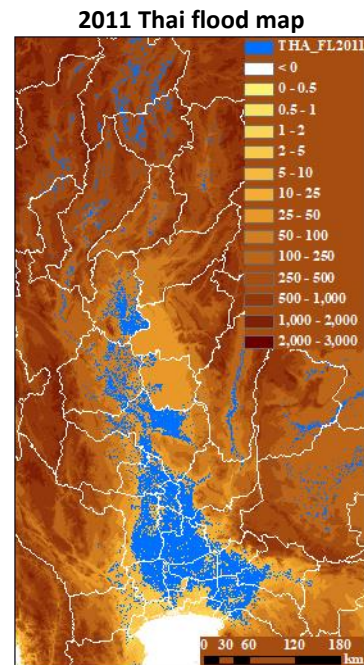
Average annual rainfall^{21,22}: 1590 mm; ~1230 mm in north to ~4500 mm in southwest

Average monthly rainfall^{21,22}: 17 mm (January) – 250 mm (September) – 48 mm (December)

Average annual number of rainy days^{21,22}: 130; 116 in northeast to 178 in southwest

Average annual number of heavy rainfall (>20 mm/day) days²³: ~6 days in the central part to ~45 days along southwest coast

1-day probable maximum precipitation²⁴: 576 mm; range: 419 - 1,248 mm



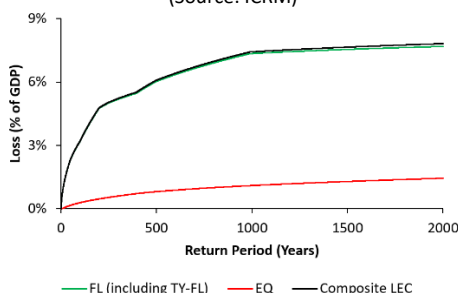
Flood extent map overlaid on ground elevation

<https://gistdaportal.gistda.or.th/portal/home/index.html>

2019 Loss Values

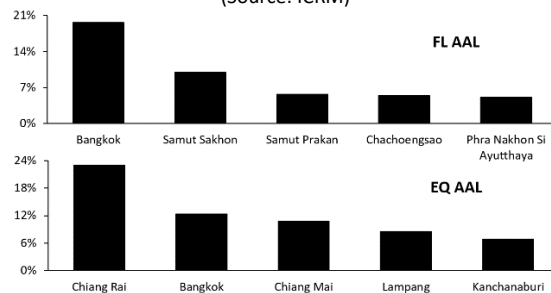
Loss Exceedance Curves

(Source: ICRM)



% of Country's AAL (Top 5 Provinces)

(Source: ICRM)



Data sources

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