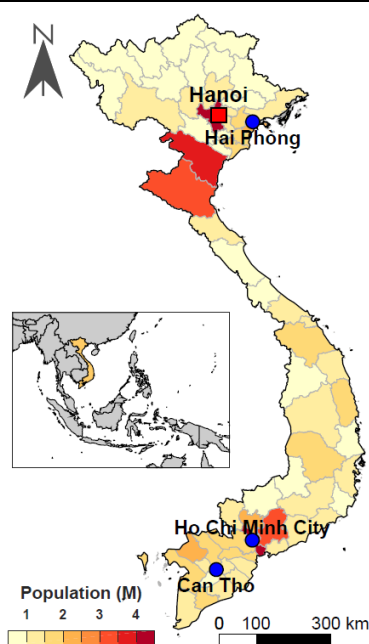


Social Indicators (2019)

Population (million) ¹ :	96.46
Population density (km ⁻²) ² :	311
Population growth rate (% yr ⁻¹) ³ :	0.99
Urban population growth rate (% yr ⁻¹) ⁴ :	3.18
Urban area growth rate (% yr ⁻¹) ⁵ :	8.51
Human Development Index ⁶ :	0.693
HDI Rank ⁶ :	118/189
Largest cities by population ⁷ :	Ho Chi Minh City, Hanoi, Can Tho, Hai Phòng

Geography

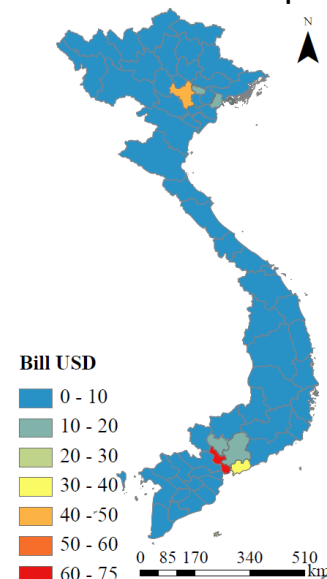
Land area (km ²) ⁸ :	310,070
Land area below 5 m MSL (%) ⁸ :	15.4
Length of coastline (km) ⁹ :	3,444 (excludes islands)
Terrain ⁹ :	Low, flat delta in south and north; central highlands; mountainous in far north and northwest
Major river systems ¹⁰ :	Red River, Mekong, Dong Nai, Ma-Chu



Economic Indicators (2019)

GDP (million USD) ⁸ :	245,214
GDP PPP (million USD) ⁸ :	711,567
GDP per capita, PPP (USD) ⁸ :	7,448
Agriculture (%)	15
Industry (%)	34
Services (%)	41
Others (%)	10
Exposure (Billion USD) ¹¹ :	418.8
Primary (%)	10
Industry (%)	22
Commercial (%)	27
Residential (%)	41
Gross capital stock (Billion USD) ¹² :	551.9
Insurance density (USD) ¹³ :	14.77
(Non-life premium in USD per capita)	
Insurance penetration (%) ¹³ :	0.58
(Non-life premium in USD as a percentage of GDP)	

Province-level Economic Exposure



Description of a recent major event

Typhoon Damrey: Originated as a tropical depression Ramil over Philippine Archipelago, Typhoon Damrey made landfall over Khánh Hoà province in southcentral Vietnam on 4 November 2017, with winds of 130-135 km/h¹⁴. The typhoon and heavy rainfall affected more than 4.33 million people in 15 provinces in Central Vietnam. During 4-5 November, the rainfall accumulations reached

500-700 mm on average, with peak in Quang Nam (1036 mm) and Thua Thien Hue (969 mm)¹⁵. Flood waters in many regions were about 0.5 m deep, with some areas in UNESCO heritage town of Hoi An under 2.5 m water^{16,17}. Strong winds, heavy rainfall, and widespread flooding destroyed 3,550 houses and partially damaged 300,000 houses. The total economic loss due to Damrey was estimated to be close to 1 billion USD along with 123 fatalities¹⁴.

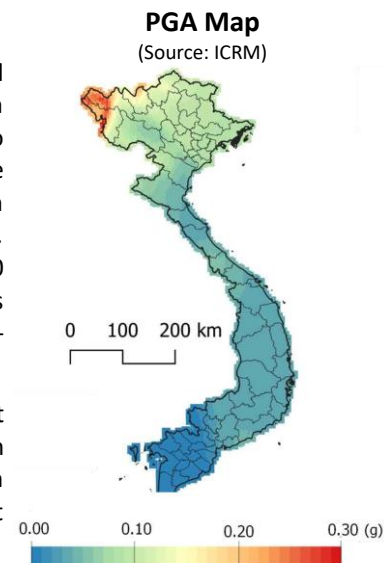
Recent Major Loss Events¹⁴

Year	Event	Magnitude or Affected area	Deaths	Total loss (bill. USD)
2017	Typhoon Damrey	130 kph	123	1.00
2017	Typhoon Doksuri	185 kph	14	0.48
2016	Typhoon Carina	NA	25	0.14
2013	Flood	48985 km ²	47	2.13
2013	Typhoon Haiyan	102 kph	16	0.73
2009	Typhoon Ketsana	170 kph	182	0.78

Major Fault Systems

The movement of the Indo-China block in the south-eastern direction formed a sequence of prominent shear zones, including the Red River shear zone in the North Vietnam and Song Ma Fault Zone^{18,19}. In recorded history, two earthquakes with estimated magnitudes of M5.0–6.0 are known to have shaken Hanoi in 1278 and 1285, an M6.5 quake occurred in the lower section of the Ma River in 1635, and an M6.0 temblor struck on the Ca River in 1821. In the past 100 years, there have been two major earthquakes of M6.0–7.0 near the province of Dien Bien in 1935 and 1983. Seismic hazard in Vietnam is mainly attributed to the Red River fault system²⁰. Red River is a sinistral strike-slip fault situated at a NW-SE orientation²¹.

Statistical studies suggest the occurrence of earthquakes with magnitudes not less than 6.0 within 50 years is predicted with 90% probability for North Vietnam, while for South Vietnam the occurrence of earthquakes with magnitudes exceeding 5.0 is predicted for the same time interval with about 80% probability²¹.



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.

About 80% of annual rainfall in Vietnam is contributed by the rainy season months. The rainy season peaks during July-August in the north, during September in north-central parts, and during September-October months in the southern parts.

Climate classification²²: Humid subtropical climate in the north, monsoon type in centre and tropical savannah in the south

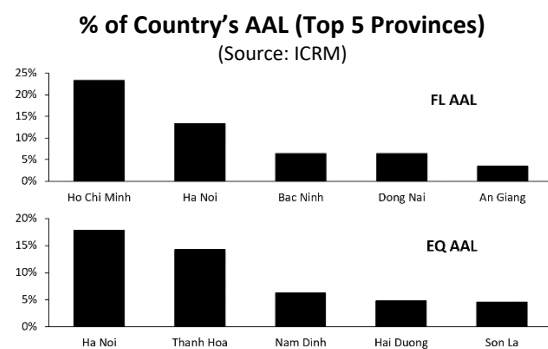
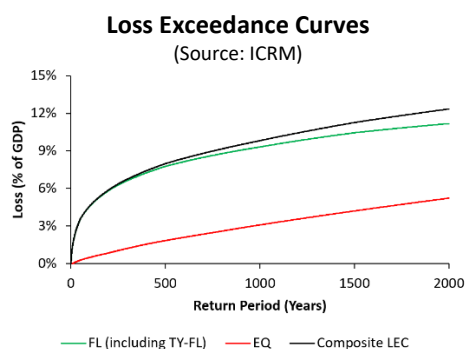
Average annual rainfall^{23,24}: 1793 mm with values mostly ranging from 1400-2400 mm; High values (~5000 mm) in the mountainous parts in the north. Average monthly rainfall²⁴: 23 mm (February) – 270 mm (August) – 63 mm (December)

Average annual number of rainy days²³: 60-120; higher values in the north and lower values in the southeast

1-day probable maximum precipitation²⁵: 232-895 mm



2019 Loss Values



Data sources

1. Mid-2019 value derived from File POP/1-1 of United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019, Online Edition. Rev. 1.
2. Mid-2019 value derived from File POP/6 of United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019, Online Edition. Rev. 1.
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