



UNOSAT

Tropical Cyclone Tembin-17

Population exposure analysis in Vietnam

21 December 2017

Population Exposure Analysis

21 December 2017

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Overview

Tembin-17 is a tropical cyclone that is currently moving west from the Philippine Sea towards the South China Sea. At present time, Temblin-17 is crossing the Philippines with maximum sustained winds of 65 km/h and gusts of 73 km/h. The tropical cyclone is expected to reach Vietnam as a category 1 Typhoon on 26 December 2017 and dissipate afterwards in Cambodia.

Based on data of the observed and predicted tropical cyclone path, wind speeds from JRC (21 December 2017 at 00:00 UTC), and population data from WorldPop, UNITAR-UNOSAT conducted a population exposure analysis for Vietnam:

- 5.6 million people are living within 90km/h wind zones.
- 17.5 million people are living within 60km/h wind zones.
- 23 million people are living within 60km/h wind zones.

Also included is a map of the tropical cyclone observed and predicted path as it approaches Vietnam.

Population Exposure in Vietnam



92,701,100

Total population of
Vietnam

5,603,806

Total population living in **120
km/h** wind speed zones

17,540,968

Total population living in **90
km/h** wind speed zones

22,964,394

Total population living in **60
km/h** wind speed zones

Province	Wind Speed Zone			Total
	120 km/h	90 km/h	60 km/h	
Dong Nai	1,221,654	1,473,256		2,694,910
Binh Thuan	1,166,786	68,243		1,235,029
Binh Duong	900,444	678,691		1,579,135
Binh Phuoc	880,973	36,864		917,838
Lam Dong	559,266	709,214		1,268,480
Tay Ninh	456,670	662,814		1,119,484
Ninh Thuan	383,239	210,715		593,954
Ho Chi Minh	17,704	8,582,950		8,600,654
Dac Nong	17,045	445,452	51,147	513,645
Ba Ria-Vung Tau	24	1,067,279		1,067,303
An Giang			2,256,410	2,256,410
Kien Giang			1,787,543	1,787,543
Dong Thap		3,986	1,746,150	1,750,136
Binh Dinh			1,575,232	1,575,232
Dak Lak		338,772	1,508,509	1,847,281
Gia Lai			1,376,568	1,376,568
Soc Trang			1,360,914	1,360,914
Ben Tre			1,320,925	1,320,925
Can Tho			1,278,070	1,278,070
Ca Mau			1,266,769	1,266,769
Vinh Long			1,084,369	1,084,369

Tra Vinh			1,057,444	1,057,444
Tien Giang		809,326	960,131	1,769,457
Quang Ngai			949,625	949,625
Phu Yen			905,855	905,855
Bac Lieu			898,922	898,922
Hau Giang			816,401	816,401
Kon Tum			434,473	434,473
Khanh Hoa		948,791	293,660	1,242,451
Quang Nam			24,715	24,715
Long An		1,504,614	10,562	1,515,176
Total	5,603,806	17,540,968	22,964,395	46,109,169

Sources:

Cyclone Track: Joint Research Center-GDACs

Administrative Levels: GADM

Spatial Demographic Data: WorldPop (2015)

Analysis: UNITAR-UNOSAT (21/12/2017)

The population exposure has been calculated using a 100 m resolution WorldPop dataset. This is a preliminary analysis & has not yet been validated in the field.

Download complete excel tables from [here](#)



VIETNAM

Analysis: 21 December 2017 | Published 21 December 2017



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Tropical Cyclone Tembin-17 : Path and Wind Speed Zones

This map illustrates the tropical cyclone Tembin17's path with high, medium and low wind impact zones observed as of 21 December 2017 and predicted until 26 December 2017. The tropical cyclone path and wind speed zones were derived from Joint Research Centre data. This is a preliminary analysis and has not yet been validated in the field. Please send ground feedback to UNITAR-UNOSAT.

Legend

- Capital
- Observed position
- Predicted position
- Observed track
- Predicted track
- Province boundary
- International boundary

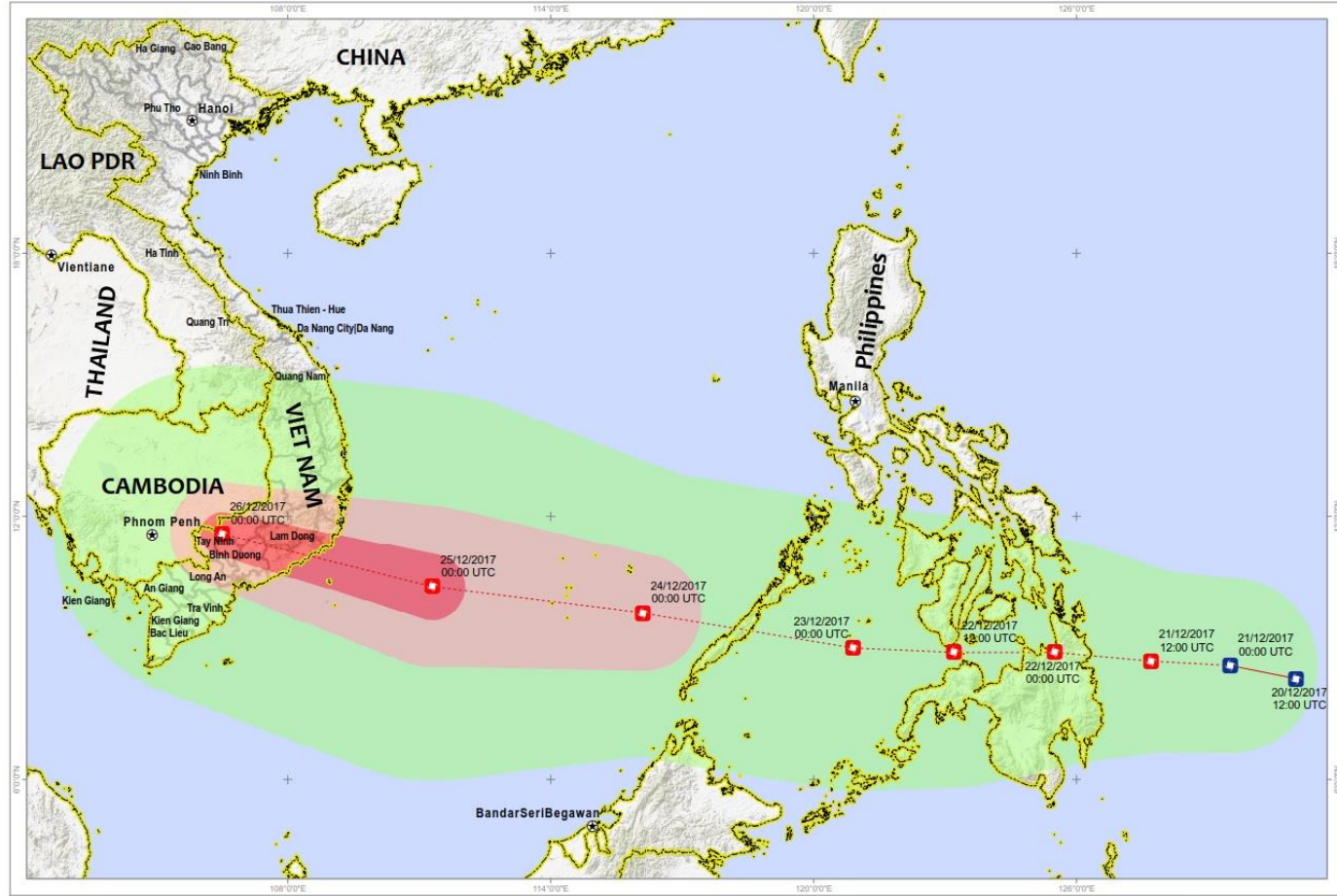
- Wind Speed Zone**
- High (120 km/h)
 - Medium (90 km/h)
 - Low (60 km/h)

Map Scale for A3: 1:100,000,000



Analysis conducted with ArcGIS v10.4

Coordinate System: GCS WGS 1984
Datum: WGS 1984
Units: Degree



Wind Speed Data: Joint Research Centre
Date Series: 21 December 2017
Copyright: JRC
Source: JRC

Baseline Data: GADM
Analysis: UNITAR - UNOSAT
Production: UNITAR - UNOSAT

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Map: Tembin-17 Cyclone path with high, medium and low wind impact zones.

Download pdf map from [here](#)