



**MINISTRY OF AGRICULTURE AND ENVIRONMENT  
VIET NAM DISASTER AND DYKE MANAGEMENT AUTHORITY**



**MINISTRY OF FINANCE  
NATIONAL STATISTICS OFFICE**

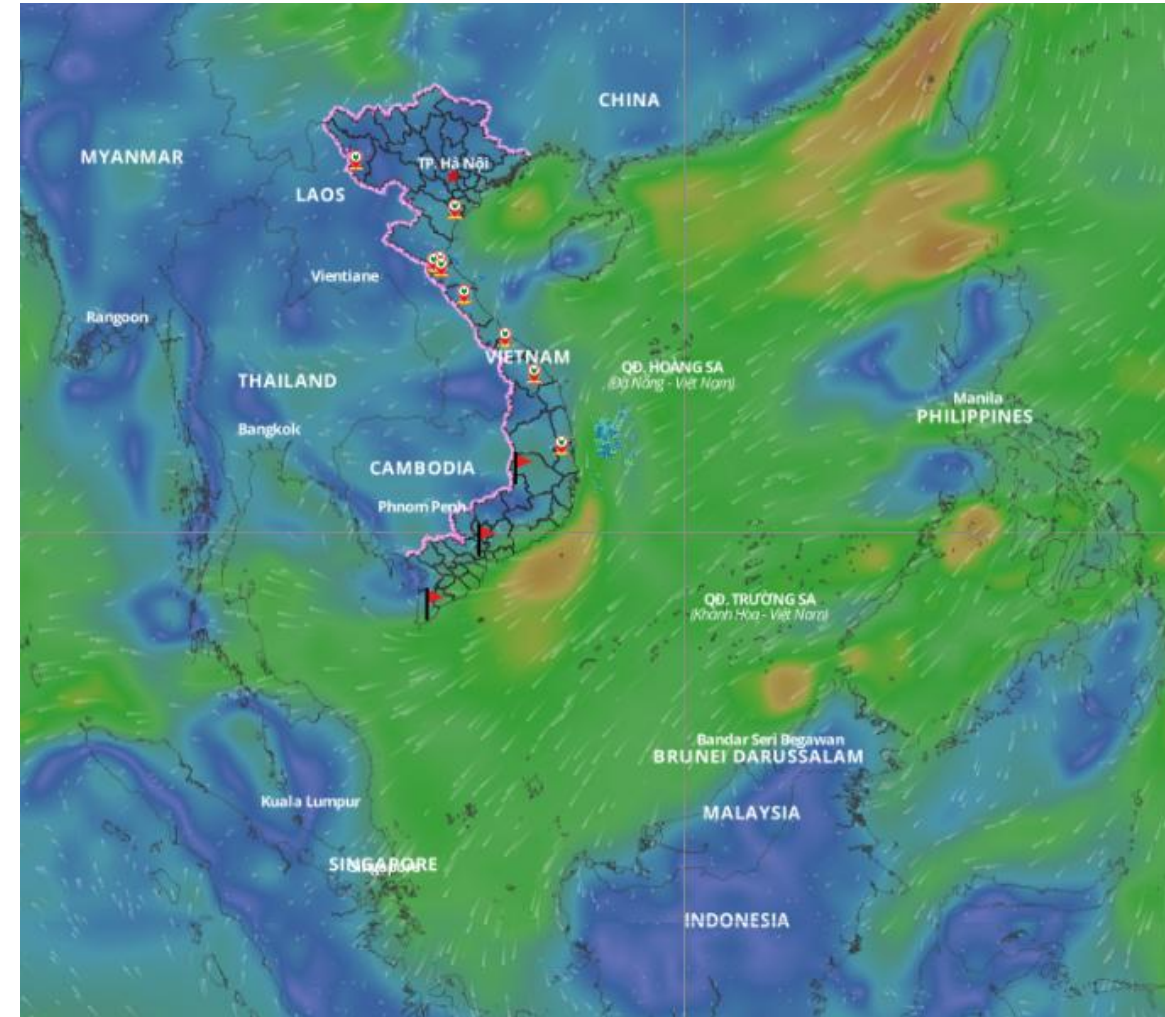
# **COUNTRY PRESENTATION - VIET NAM**

**Workshop "Measuring Disaster Risks and Impacts"**

*Oct, 2025*

# OVERVIEW OF DRM IN VIETNAM

- Vietnam is located in **Southeastern Asia**, bordered with China, Lao PDR and Cambodia.
- **Total land area** of **331,338 km<sup>2</sup>** with a coastline of 3,260 km and about 3,000 islands.
- **3 major areas:** The Red River delta to the north; a large plateau with a narrow coastal plain in the middle of the country; and the Mekong Delta in the south.
- Population: **99.2 million** (2024)



# DISASTER ZONING IN VIETNAM

## REGION 2: NORTHERN MOUNTAINOUS AND NORTH CENTRAL REGION

Flash floods, landslides, coldwaves, frost, hoar frost, heavy rain

## REGION 1: NORTHERN PLAINS AND NORTH CENTRAL REGION

Floods, tropical depression, storms, major floods, droughts, saltwater intrusion, coldwaves, heavy rain

## REGION 3: CENTRAL COASTAL REGION

Major floods, inundation, tropical depression, storms, storms, super storms, storm surge, droughts, saltwater intrusion, riverbank and coastal erosion, heavy rain

## REGION 4: CENTRAL HIGHLANDS AND SOUTHEAST REGION

Heatwaves, droughts, floods, flash floods, landslides, inundation

## REGION 6: URBAN AREAS

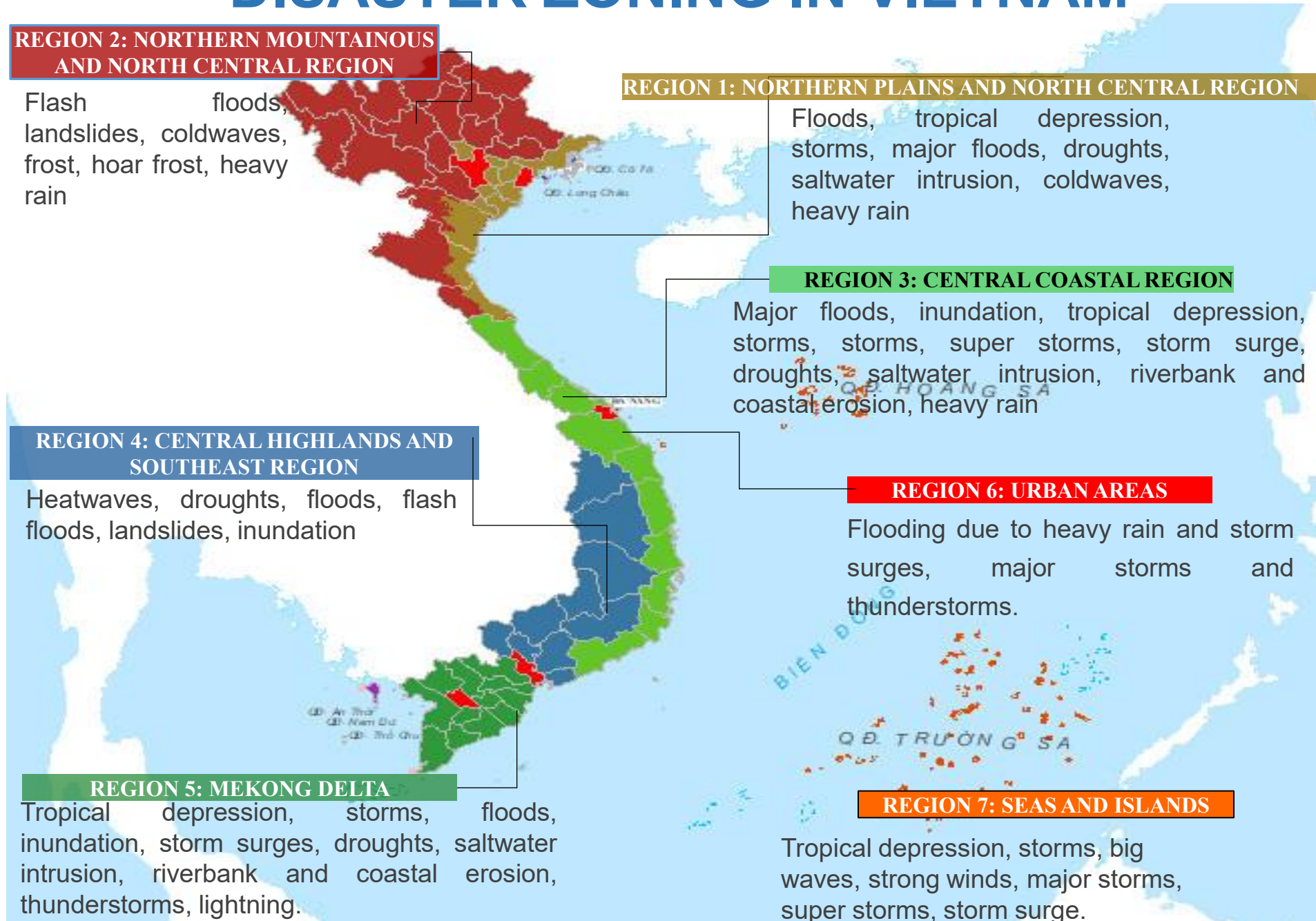
Flooding due to heavy rain and storm surges, major storms and thunderstorms.

## REGION 5: MEKONG DELTA

Tropical depression, storms, floods, inundation, storm surges, droughts, saltwater intrusion, riverbank and coastal erosion, thunderstorms, lightning.

## REGION 7: SEAS AND ISLANDS

Tropical depression, storms, big waves, strong winds, major storms, super storms, storm surge.



# 22 TYPES OF NATURAL DISASTER

Law on Natural Disaster Prevention and Control 2020

Typhoon



Tropical low Pressure



Flood



Inundation



Flashflood



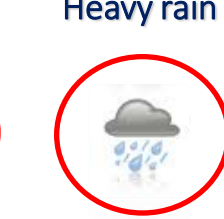
Landslide



Land subsidence



Heavy rain



Water rise



Fog



Hoarfrost



Hail



Damaging cold weather



Whirlwind



Lightning



Drought



Scorching weather



Seawater intrusion



Wildfire



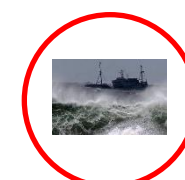
Earthquake



Tsunami

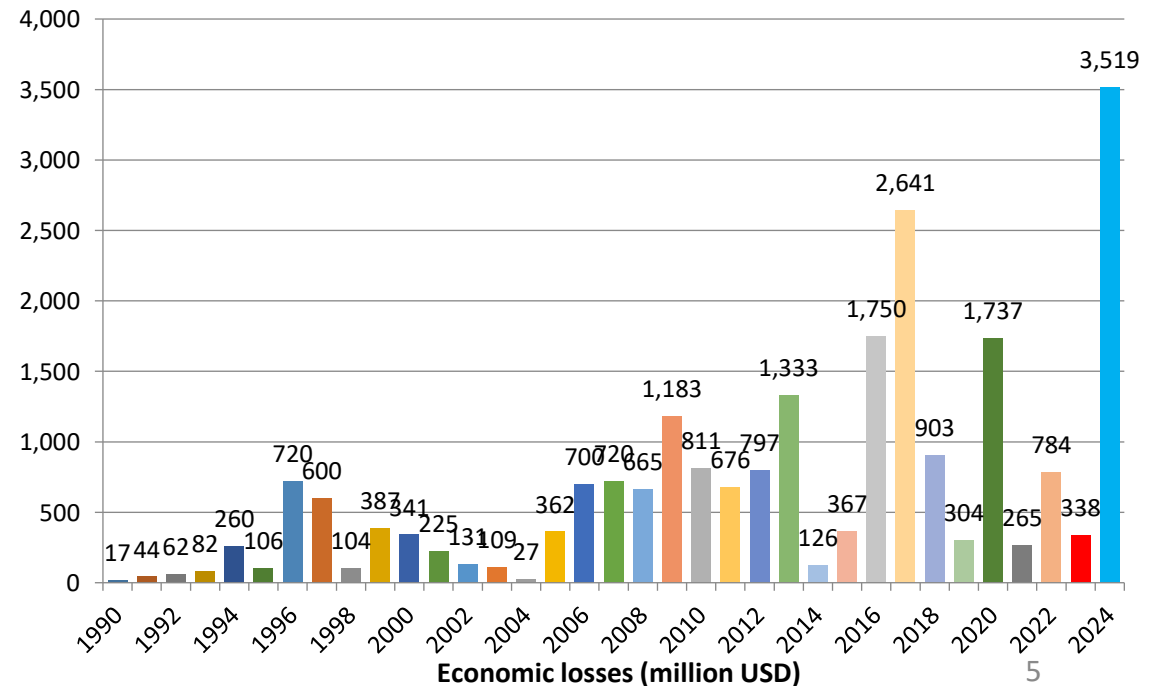
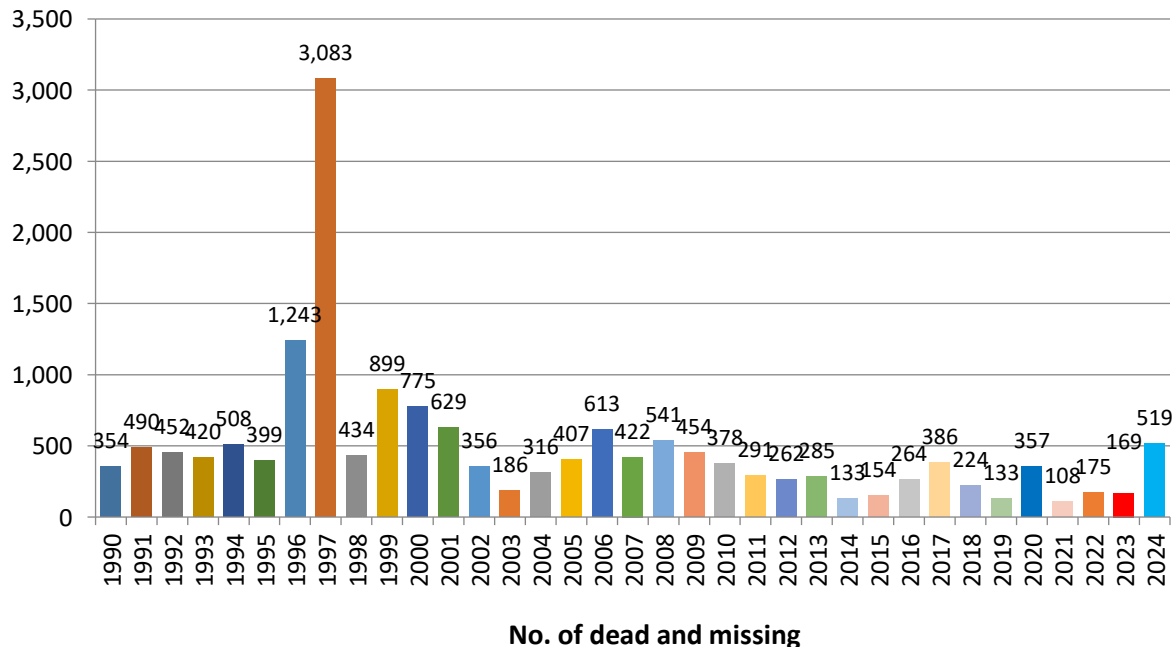


Gale-force wind at sea



# DISASTERS IN VIETNAM

- Vietnam is one of the most hazard-prone countries in the Asia-Pacific Region. With the coastline of 3,300 km, the country is exposed to hydro-meteorological hazards such as storms, floods, landslides, drought, water intrusion and coastal erosion
- Vietnam is ranked among the five countries likely to be most affected by climate change.
- Vietnam experienced 22++ types of disaster
- 70% of the country population live in coastal communities with high exposure to storms and flooding, which climate change is intensifying
- Over the past 20 years, disasters caused 300 dead and missing persons per year, and an economic loss to the GDP is about 0,5 - 1%.



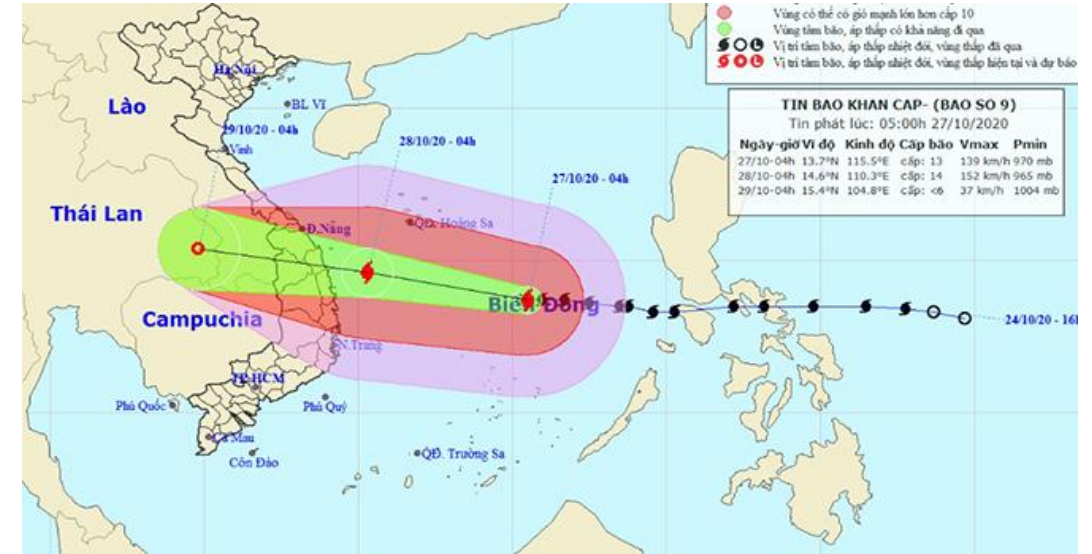


## KEY DISASTER EVENTS RECENTLY

## Storm Molave (Storm number 9) in 2020

- **83** people died
- More than **2,527** houses collapsed, **88,591** houses lost roofs
- Total estimated damage is up to 10,000 billion VND (equivalent to **435 million USD**)

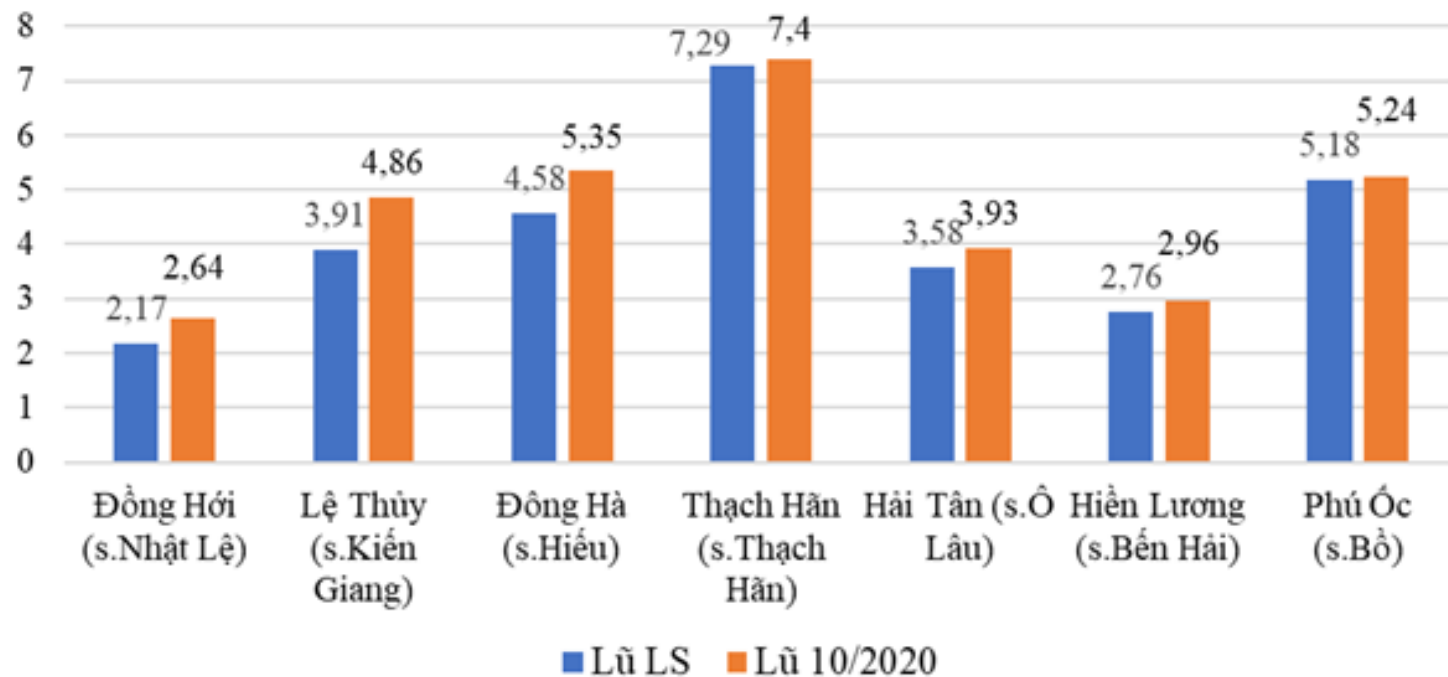
# Storm Molave landed in Central Vietnam from 23-29 October 2020



## 2020 HISTORICAL FLOODING IN CENTRAL VIETNAM

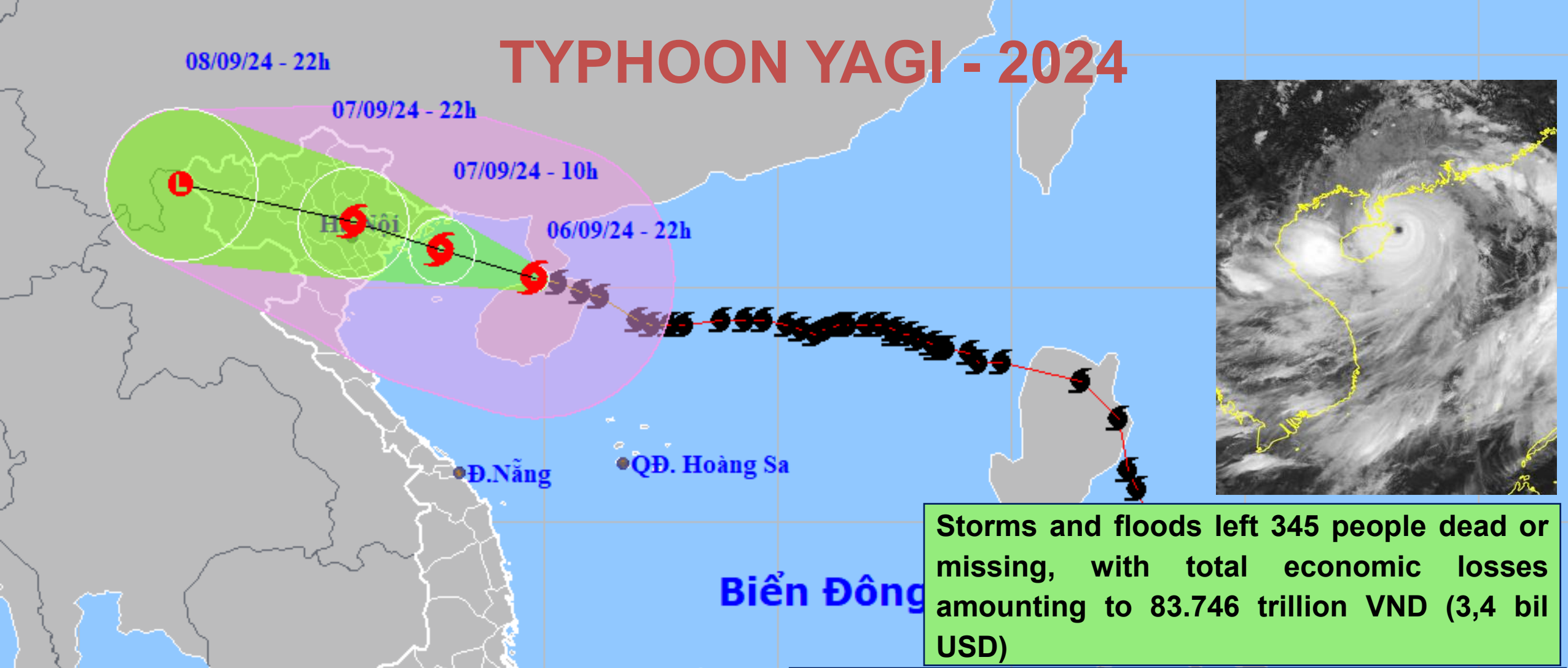
- 154 people died and are missing
- Regarding housing: 317,597 houses were flooded and damaged.
- Total damage: 15,658 billion VND (equivalent to 680 million USD)

### 07 rivers' water levels exceeded history





# TYPHOON YAGI - 2024



Storms and floods left 345 people dead or missing, with total economic losses amounting to 83.746 trillion VND (3,4 bil USD)

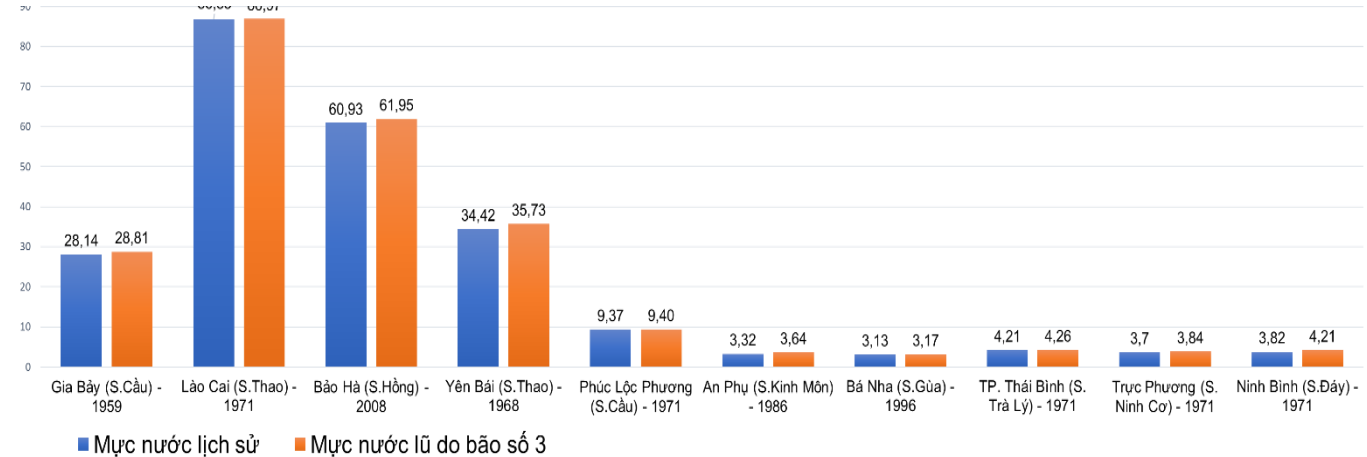
- Recorded wind speeds in Quảng Ninh – Hải Phòng reached levels 13–14, with gusts up to levels 16–17
- Strongest typhoon in the last 30 years in the East Sea and in the last 70 years on land.
- Sustained super typhoon intensity over a long period.
- Prolonged landfall duration, causing extended impacts inland





# 2024 YAGI FLOODING IN NORTHERN REGION IN VIETNAM

- **Rainfall at 83 out of 84 monitoring stations** was 4 to 6 times higher than the multi-year average during the first 10 days of September, with some locations recording over 700 mm.
- **Water levels at 39 stations exceeded Level 3 flood warning thresholds**; historical records were surpassed at 10 stations along 7 river routes, including a 1.31-meter exceedance in Yên Bái



*Flooding in Gia Vien district*



*Flooding along the Red River bank in Hung Yen Province*

# OVERVIEW OF NATURAL DISASTER 2025

In 2025, natural disasters are occurring very fiercely and extremely with more than 20 types of natural disasters: especially 12 storms, 04 tropical depressions, extreme heavy rains, floods exceeding history on many rivers (types of natural disasters that have occurred nationwide such as: storms, tropical depressions, heavy rains, heavy floods, widespread flooding, rising water, strong winds at sea, thunderstorms, hail, cold, frost, fog, flash floods, landslides, heat waves, saltwater intrusion, soil stagnation).



238 people dead and missing (human damage equal to 47% in 2024)



258,000 houses damaged, roofs blown off



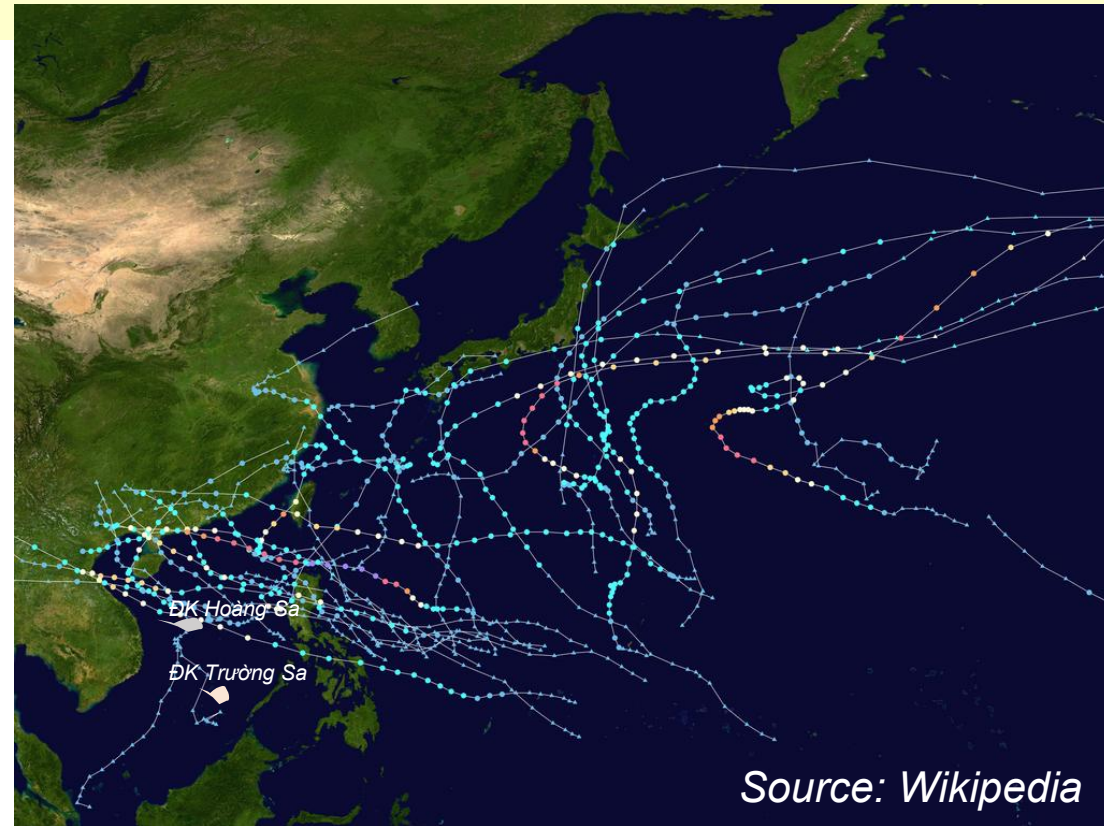
1,206km of roads were eroded and damaged with more than 20.3 million cubic meters of earth and rock.



555,000 hectares of rice and crops were damaged.



Estimated damage of 33,500 billion VND (equal to 37% of 2024)





# Typhoon in late September and early October

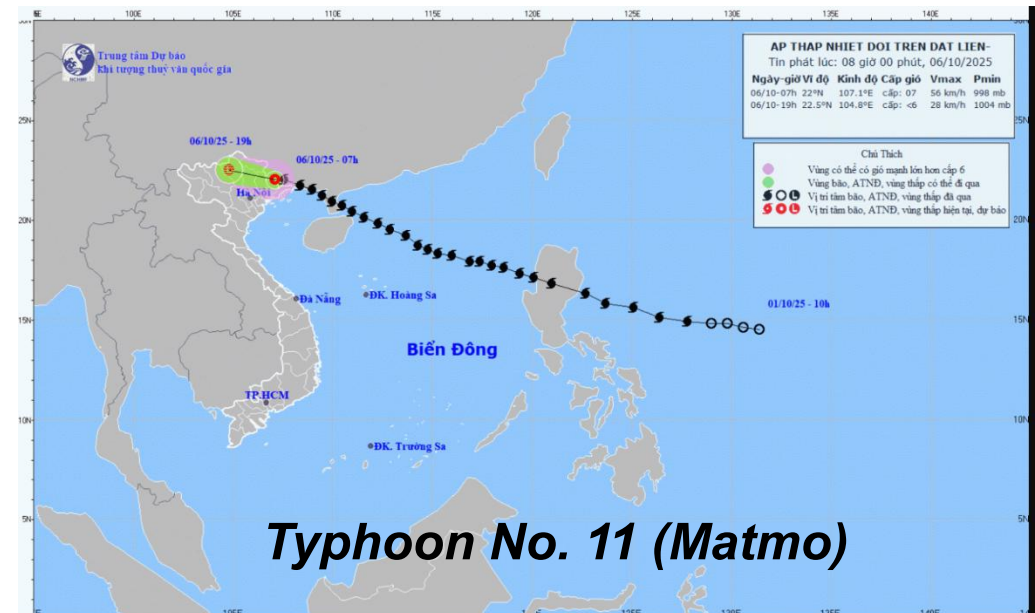
## • Typhoon BUALOI (No. 10)

- Typhoon BUALOI: The time from when the storm makes landfall in the morning of September 29th until the rain subsides in the night of October 1, 2025. BUALOI moved quickly over the sea, but its speed decreases rapidly when it reaches the mainland.
- Indeed, its circulation has caused heavy rain, floods, and inundation in the provinces of the Northern and North Central regions, causing thunderstorms in Hue, Ninh Binh, and Hai Phong.



## • Typhoon MATMO (No. 11)

- MATMO: Entered the Gulf of Tonkin in the evening of October 5th, landfall in the early morning of October 6, then weakened into a tropical depression and gradually dissipated over the Vietnam - China border area. MATMO did not cause strong winds at sea and in land in Vietnam.
- However, the storm circulation combined with the southeast wind zone of the subtropical high pressure caused very heavy rain in the northeastern provinces (including Lang Son, Cao Bang, Thai Nguyen, Bac Ninh) and the capital Hanoi with total rainfall during the night of October 6 and October 7 from 200-400mm, especially in Thai Nguyen province, there was especially heavy rain throughout the province with total rainfall of 300-400mm, some places over 560mm.
- By October 8, the rain gradually decreased but flooding still lasted until October 11.





# Losses and Damage

## (due to Bualoi and Matmo as of 13th October)

---

|                           |            |                                   |                                |                    |                                 |
|---------------------------|------------|-----------------------------------|--------------------------------|--------------------|---------------------------------|
| <b>85</b>                 | <b>199</b> | <b>545.6K</b>                     | <b>205.8K</b>                  | <b>1.8M</b>        | <b>1.26 B USD</b>               |
| people killed and missing | injured    | Collapsed/damaged/ flooded houses | ha of damaged agriculture land | Heads of livestock | Estimated total economic losses |



Flood in Hà Tĩnh due to BUALOI



Flood in Hà Nội due to BUALOI



Dyke Incident



Flood in Cao Bằng

# INSTITUTIONAL ARRANGEMENTS FOR DRM

- The **Sendai Framework** for Disaster Risk Reduction 2015-2030
- The ASEAN Agreement on Disaster Management and Emergency Response (**AADMER**)
- APEC Emergency Preparedness Working Group (**EPWG**)
- The Sustainable Development Goals (SDGs)

## Global Legal Basis



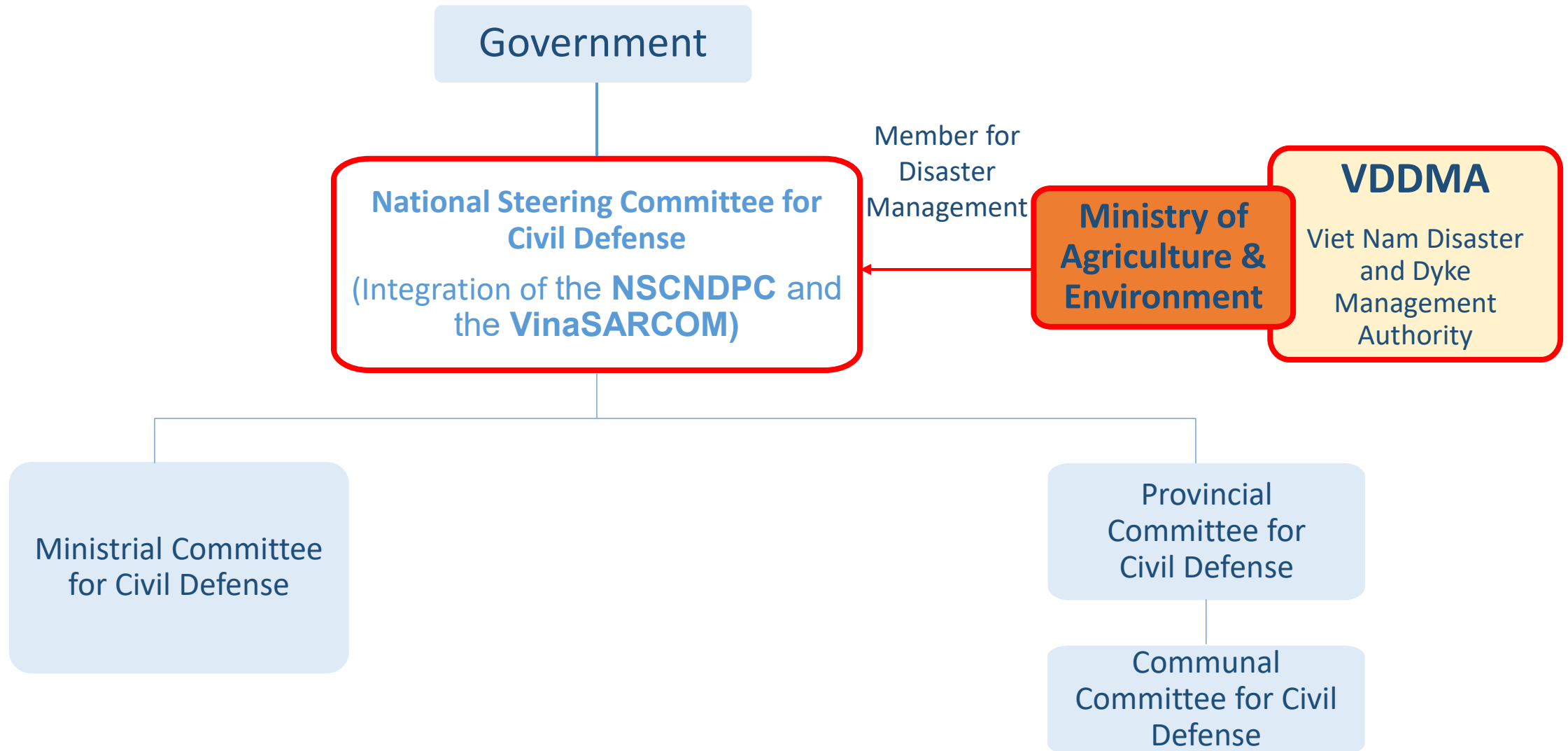
- The Law on Civil Defence
- **The Law on Disaster Prevention and Control**
- The Law on Hydrometeorology
- Under law documents

## Legal Basis for DRM in Viet Nam



# VIET NAM DRM ORGANIZATIONAL STRUCTURE

(After the integration of the **NSCNDPC** and the **VinaSARCOM**)





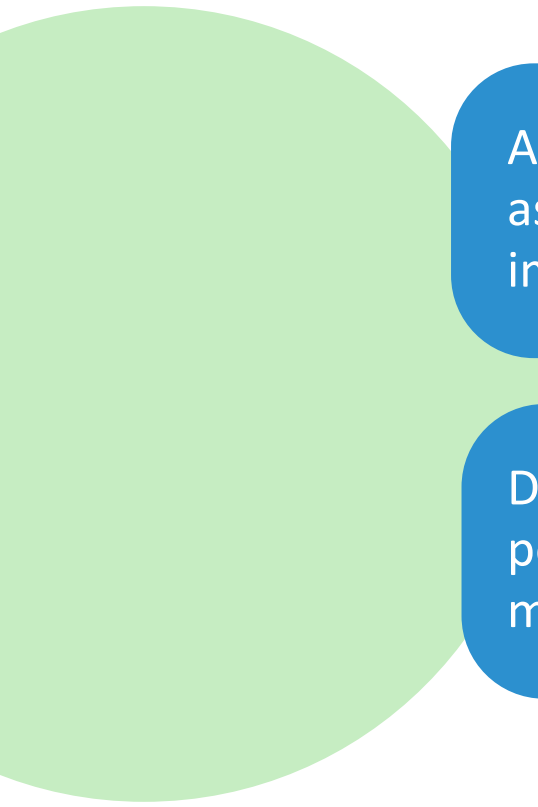
# **DISASTER-RELATED STATISTICS SYSTEM IN VIET NAM**

# Existing disaster-related statistical indicators

- The National Statistical Indicator System includes the indicator “Number of natural disaster events and extent of damage”.
- The system of statistical indicators for the agricultural and environmental sectors, the group of indicators on natural disaster prevention has 6 indicators.
- Viet Nam’s Sustainable Development Statistical Indicator System (SDGs), promulgated on 3 January 2025, includes a set of indicators for monitoring disaster risk in line with SDG Targets 11.5, 13.1 and 13.3.



## Data needs for improving and expanding disaster-related statistics



A methodology is needed to assess indirect losses and long-term impacts, such as reduced income, production disruption, disaster-induced migration, as well as impacts on education, health and social welfare.

Data are needed on vulnerability and adaptive capacity, especially for vulnerable population groups such as women, children, the poor, the elderly and ethnic minorities.



# Data sources and statistical compilation process

In Viet Nam, the disaster-related information and data system is established through the coordination between the national statistical agency and the disaster management authority.

The Vietnam Disaster and Dike Management Authority (under the Ministry of Agriculture and Environment) is the lead agency responsible for consolidating disaster-related information nationwide

The National Statistics Office (NSO) under the Ministry of Finance is responsible for standardizing, compiling and publishing official disaster-related statistics within the National Statistical Indicator System.



# Main data sources

## VIETNAM DISASTER AND DIKE MANAGEMENT AUTHORITY

- Collect hydrometeorological data (rainfall, river level, storm-track...) from National Center for Hydro-Meteorological Forecasting...
- Leads the consolidation of disaster damage reports from local authorities. Collects data through daily rapid reports, disaster event reports and annual summary reports.

## NATIONAL STATISTICS OFFICE (NSO)

- Receives monthly disaster damage reports from localities for inclusion in the monthly socio-economic situation report.
- Receives official disaster loss data from the Ministry of Agriculture and Environment for publication in the annual Statistical Yearbook.

# Key achievements

- **Vietnam Disaster Monitoring System (VNDMS)**

Viet Nam operates an online disaster monitoring system (<https://vndms.dmptc.gov.vn/>) managed by the Ministry of Agriculture and Environment.

- **Timely support in disaster recovery**

Provide timely support to localities in disaster recovery based on damage and needs assessments.

- **Regular publication of official disaster statistics**

Disaster loss data have been consistently published in the Viet Nam Statistical Yearbook, ensuring a continuous data series for monitoring disaster impacts.

- **Integration of disaster information into national statistical surveys**

In 2025, the NSO incorporated two questions on disaster risk and impacts into the Viet Nam Household Living Standards Survey (VHLSS), providing initial household-level disaster data.

- **Production of thematic statistical reports**

Publications such as “Viet Nam Environmental Statistics 2014–2021” include disaster-related data. Viet Nam cooperated with the Italian National Institute of Statistics (ISTAT) to produce a pilot report on selected sustainable development indicators on urban environment and climate change in 2021.

# Challenges and limitations

- Data collection is still manual and lacks field verification tools.
- Inconsistent reporting timelines lead to discrepancies across data sources.
- Indirect and long-term socio-economic impacts are not yet captured.
- Limited disaggregated data by sex, age, location, and vulnerable groups.
- Data collection and processing capacity varies across localities.





# Future directions and recommendations

- Strengthen legal and technical framework for disaster statistics
- Standardize and digitalize data collection nationwide
- Establish electronic disaster reporting system
- Improve data sharing and coordination among agencies
- Collect data on long-term impacts and vulnerable groups
- Enhance local capacity in disaster data collection and analysis





# THANK YOU

