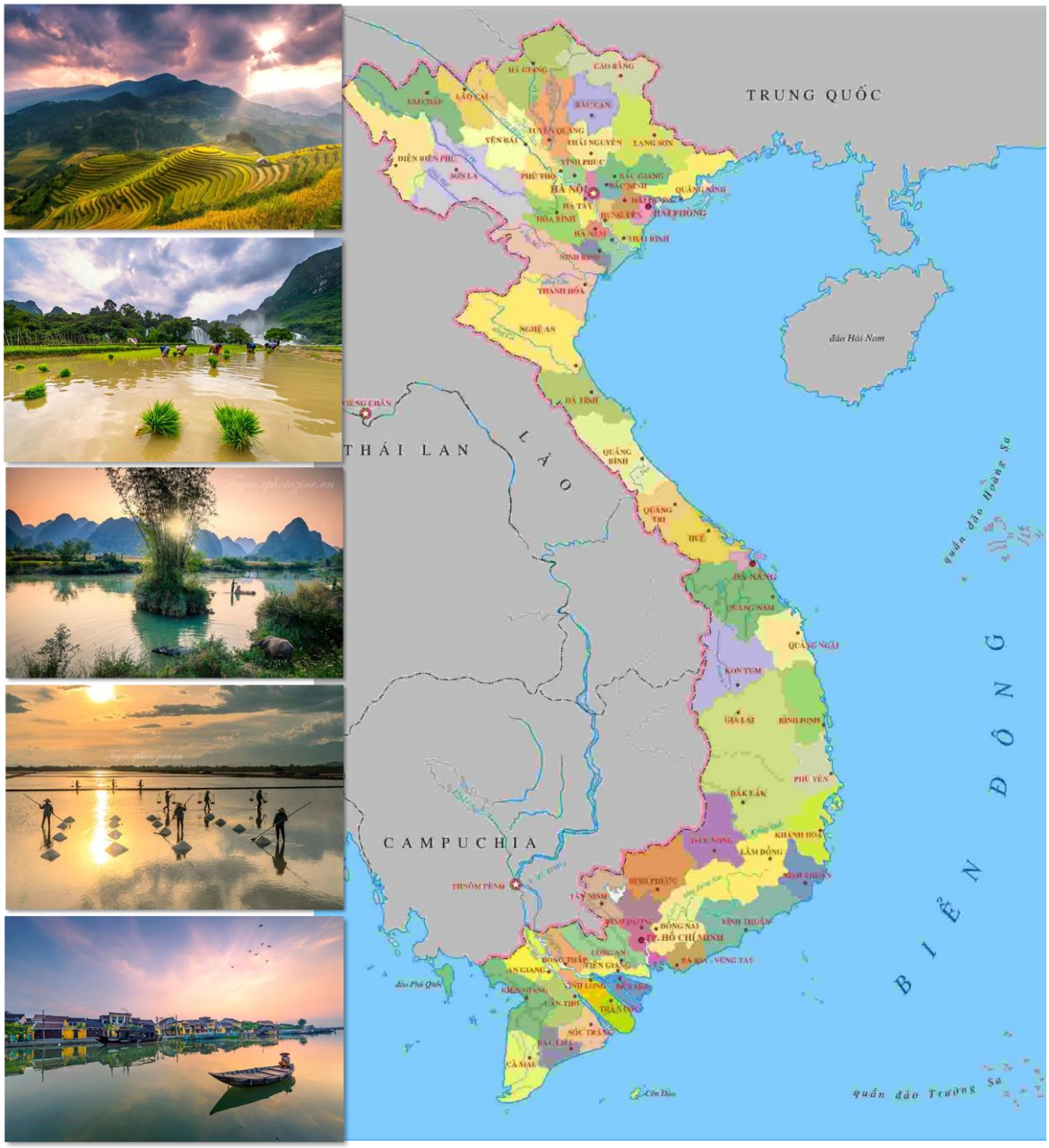
JAPAN, 2018

ASIAN DISASTER REDUCTION CENTER

Visiting Researcher Program

(FY2017B)

Viet Nam Country Report 2017



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VIET NAM

I. GENERAL INFORMATION

SOCIALIST REPUBLIC OF VIET NAM

Conventional long form	:	Socialist Republic of Vietnam
Conventional short form	:	Vietnam
Government type	:	Communist state
Capital	:	Hanoi
Administrative divisions	:	59 provinces (province, singular and plural) and 5 municipalities (capital, singular and plural)

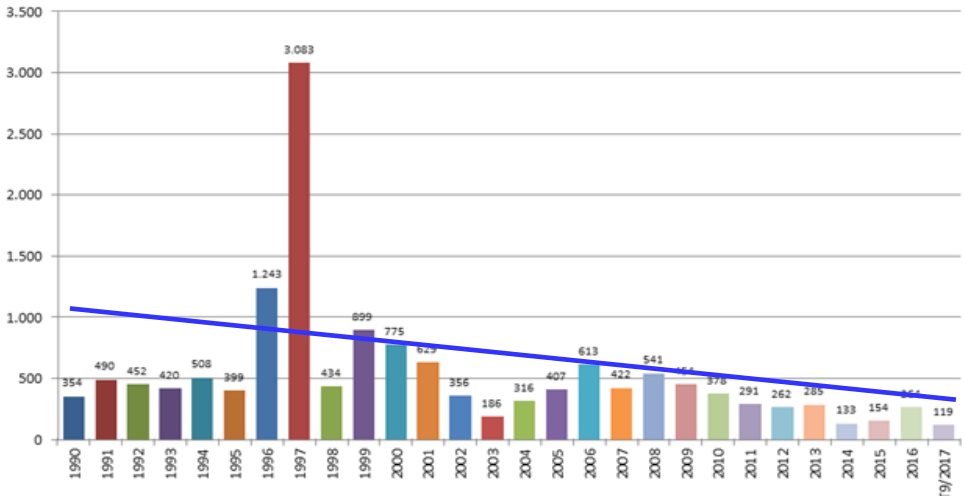
Vietnam is located in eastern Indochina, and borders with China, Lao, PDR and Cambodia. Narrow strip of land is 329,241 square kilometers in area. Southern part has the Mekong Delta and plains, whilst the central area is composed of mountains and slopes. North is mountainous and hilly, except the Red River Delta in the south. Tropical climate in the south and temperate in the north, with rainy season from April to October. In the mountains annual precipitation sometimes rise up to 4000mm. From October to March is dry season. Out of 95,6 million people, 86 percent are the Kinh. The population includes 53 other ethnic minority residents.

II. DISASTERS IN VIETNAM

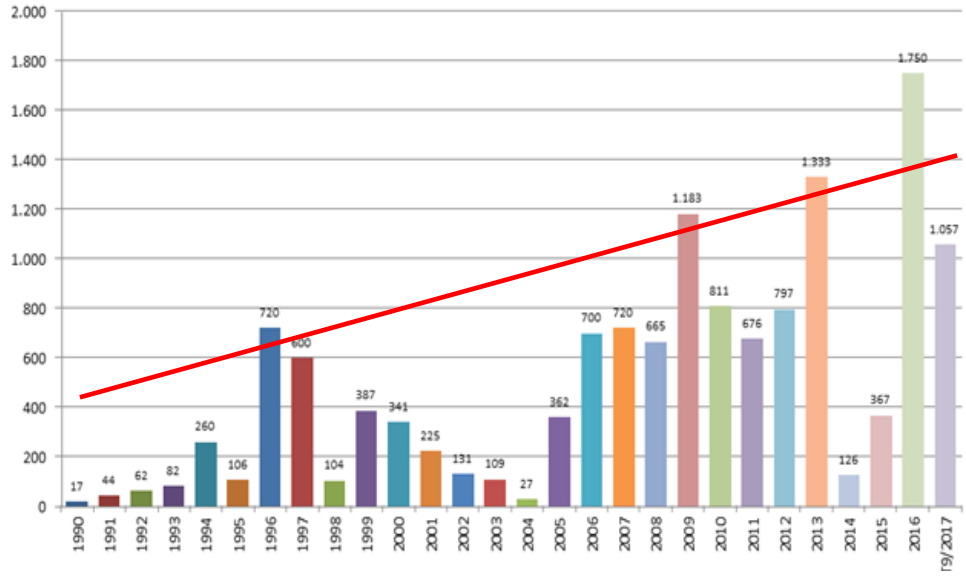
1. Background

Vietnam is one of the countries worst affected by natural disasters and climate changes (there were 20/21 types of disasters in 2016, with exception of tsunami).

Natural disasters, in particular storms, floods, droughts, flash floods and landslides are increasing in intensity and frequency, causing severe human and economic losses: Over the past 20 years, disasters caused 10,800 dead and missing persons, and an economic loss to the GDP of: VND 28,000 billion (1÷1.5% of GDP).



Dead and missing persons



Economic loss (USD million)

2. Typical Regional Disasters

2.1. Region 1: Northern Mountainous (Flashfloods, landslides, damaging cold, snow, frosts and heavy rains)

Flashfloods and landslides in Aug. 2017 in Son La, Yen Bai, Dien Bien, Lai Chau caused 44 dead and missing persons and an economic loss of VND 1,190 billion (~52 million USD).

2.2. Region 2: Northern plain Region and Northern Central Region (Flood, typhoons, inundation, drought, saline intrusion, damaging cold and heavy rains)

- Flood in 1945 broke 79 pieces of dyke, innudating 160,000 ha of productive land.

- Flood in 1971 broke 16 dyke points, innudating 200,000 ha of productive land.

2.3. Region 3: Mountainous Areas in Northern and Central Central Region (Heating, flashfloods, landslides and damaging cold)

Flashfloods in Sept. 2002 in Ha Tinh caused 53 dead and missing cases, 111 injuries.

2.4. Region 4: Central Coastal Region (Heavy flooding, inundation, superstorms, water surging, saline intrusion, coastal and river erosion, heavy rains)

Flood in 2016 caused 134 deads, inundated 1,200 houses.

2.5. Region 5: Major Urban Areas (Inundation due to heavy rains and floods, tidal waves, heavy storms and whirlwinds and tornadoes)

Inundation in 2008 caused 22 deads and an economic loss of VND 3,000 billion.

2.6. Region 6: The Central Highlands, Mountainous Areas in Southern Central Region, Southeast Region (Heating, drought, floods, flashfloods, landslides and inundation)

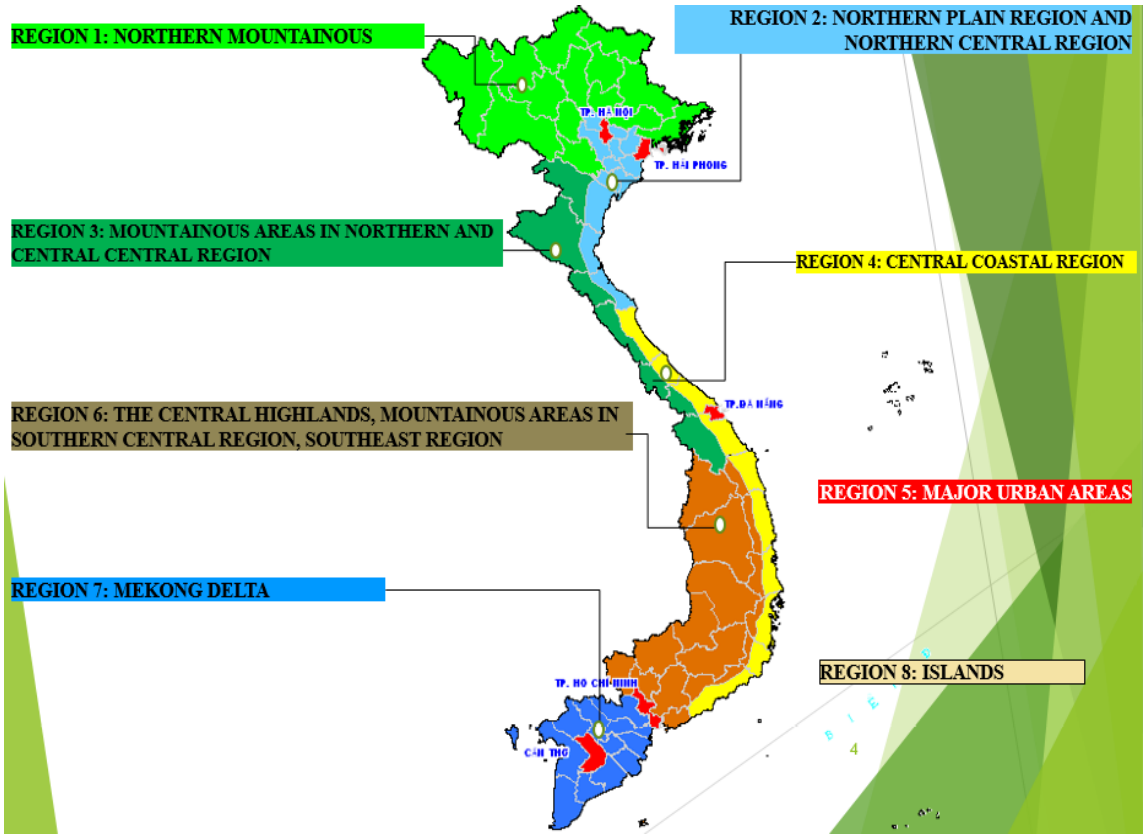
Drought in 2015 – 2016 caused water shortage in 115,000 households, and damages to 15,000 ha non-productive land, 28,000 ha of paddy fields, and 140,000 perenial trees.

2.7. Region 7: MeKong Delta (Typhoon, flood, inundation, tidal flooding, storm surging, drought, saline intrusion, coastal and river erosion, whirlwind, tornadoes and thunderbolts)

Saline intrusion in 2015 caused water shortages in 342,000 households, and damages to 216,000 ha of paddy rice.

2.8. Region 8: Islands (Storms and superstorms)

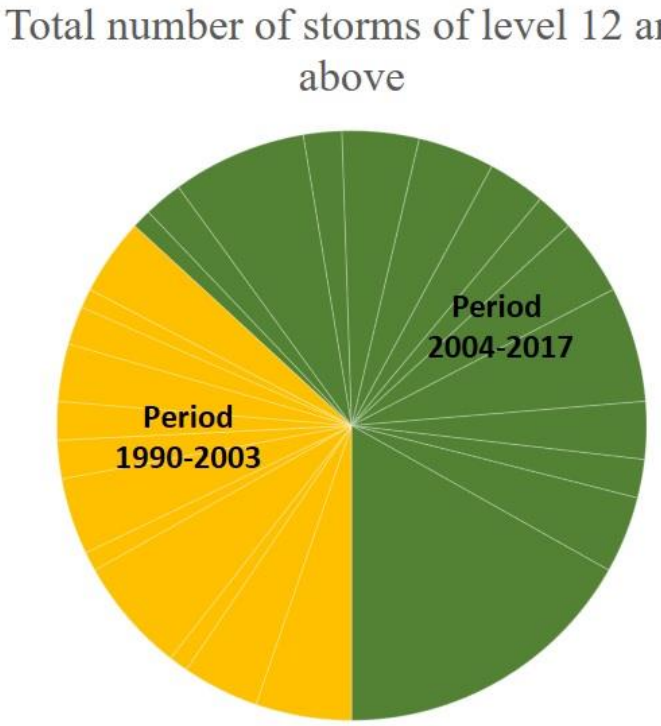
Storm Chanchu in 2006 sunk 13 ships, 5 ships were lost, causing 266 dead and missing persons.


REGION 1: NORTHERN MOUNTAINOUS
REGION 2: NORTHERN PLAIN REGION AND NORTHERN CENTRAL REGION
REGION 3: MOUNTAINOUS AREAS IN NORTHERN AND CENTRAL CENTRAL REGION
REGION 4: CENTRAL COASTAL REGION
REGION 6: THE CENTRAL HIGHLANDS, MOUNTAINOUS AREAS IN SOUTHERN CENTRAL REGION, SOUTHEAST REGION
REGION 5: MAJOR URBAN AREAS
REGION 7: MEKONG DELTA
REGION 8: ISLANDS
TP. HÀ NỘI
TP. HẢI PHÒNG
TP. ĐÀ NẴNG
TP. HỒ CHÍ MINH
CẦN THƠ

3. Extreme Events

3.1. Storms: at level 12 or above in the East Sea of Vietnam are trending up

In period 2004-2017 (60 events), increasing by 1.71 times from that in period 1990-2003 (35 events). Special, there were 16 storms in 2017



3.2. Out of season rains and flooding and extraordinary rains (are increasing in frequency)

- 8/2015 Flooding in Hoanh Bo, Quang Ninh 1,557mm.

- 11/2008 Flooding in the downtown of Hanoi 597 mm/day.

- 10/2016 Flooding in Dong Hoi, Quang Binh, Ha Tinh 949mm.

- 11/2016 Water release from Ba Ha HydroPower Dam, Phu Yen Qreliease: 11.500m3/s and rain 1,022mm.

3.3. Droughts

Year 2009-2010	Southern Central region
2010-2011	The Central Highlands
2014-2016	Southern region

3.4. Heating

- Year 2015: In areas of Northwestern and Central regions, the temperature reached 42 degrees in as long as 40 days.

- Year 2017: In areas of Northern region, the temperature rose to 42.5 degrees, in 4 days (history:38.7 degrees in year 1994)

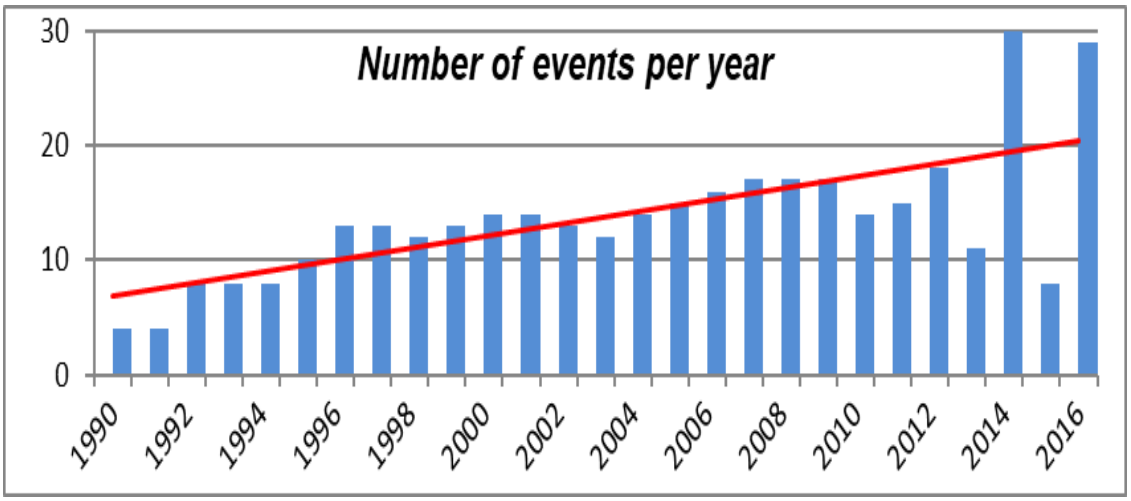
3.5. Flashfloods

Trending up:

1990: 4 events

2000, 2010: 14 events

2016: 29 events

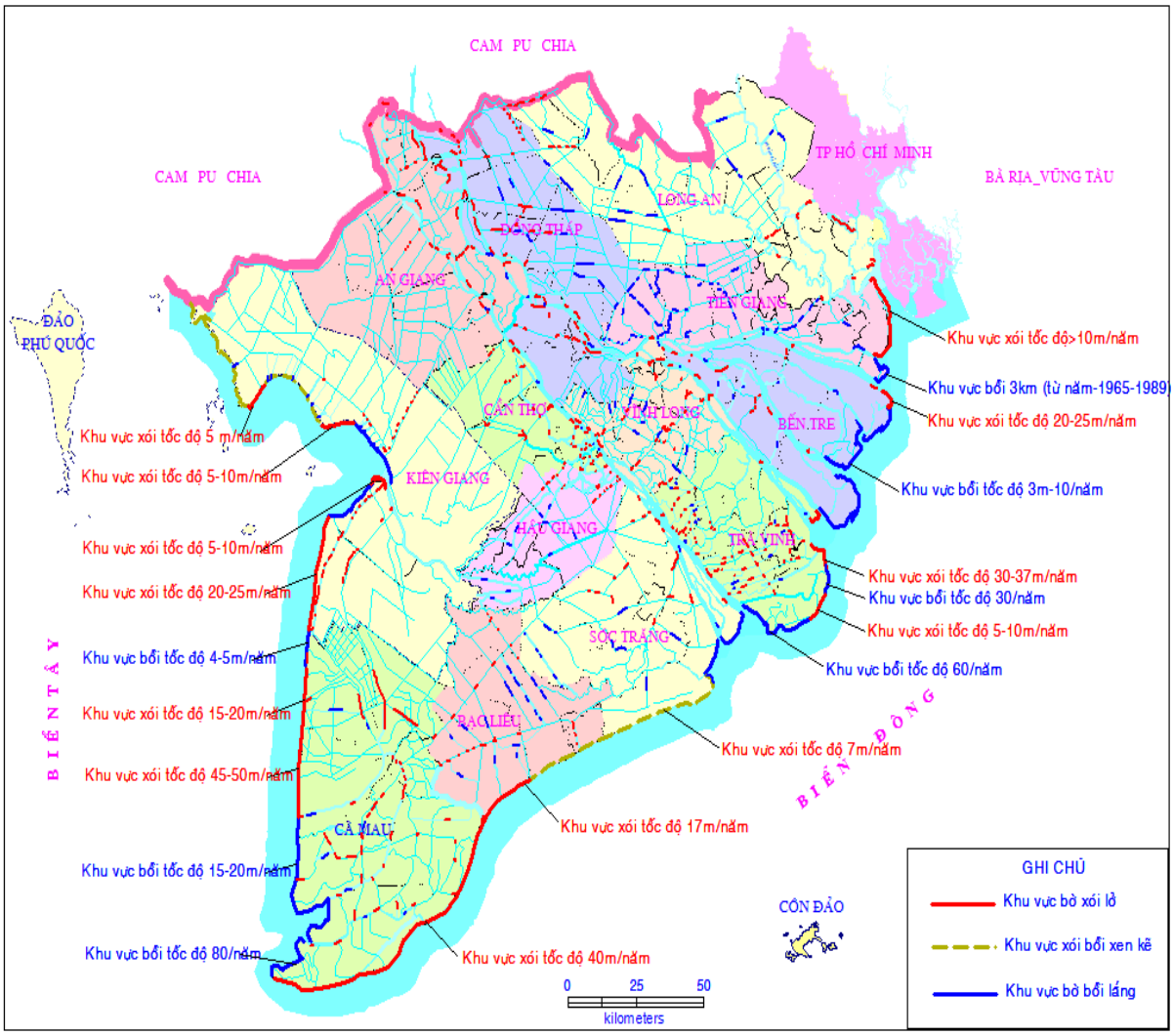


2013 flashflood in Lao Cai

Flashfloods and landslides on 02-03/8/2017 in Son La, Yen Bai, Dien Bien, Lai Chau

3.6. River and coastal erosions

Since 2010, erosion has been speeding up and become more severe, with significant socio-economic implications, At the time being, there are:



In total: 2,057 points/2,969 km.

+ River bank: 1,857 points /2,227 km.

+ Coastal bank: 200 points/469 km.

Of which:

- Northern region: 562 points /470 km.

+ River bank : 528 points/444 km.

+ Coastal bank : 34 points/26 km.

- Central region: 817 points/1,279 km.

+ River bank : 720 points/1,127 km.

+ Coastal bank : 97 points/152 km.

- Southern region: 678 points /947 km.

+ River bank : 609 points/657km.

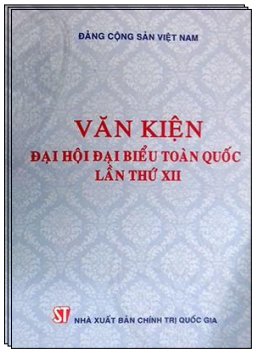
+ Coastal bank : 67 points/291km.

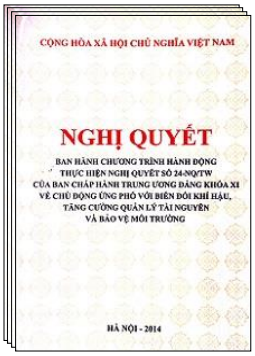
II. OPPORTUNITIES AND CHALLENGES

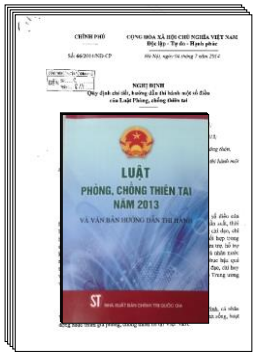
1. OPPORTUNITIES

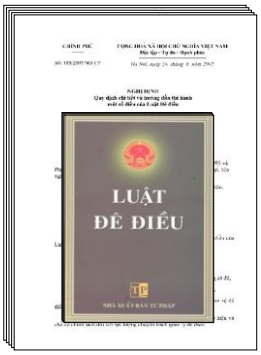
1.1. Disaster prevention and control are receiving due attention and guidance from the Party and the State. Party Resolutions and Guidance introduce a number of major political guidance on disaster prevention and control.

1.2. The legal and regulatory framework is consistently established for disaster prevention and control nationwide: The Law on Disaster Prevention and Control, and regulatory guidelines, the National Strategy on Disaster Prevention and Control…







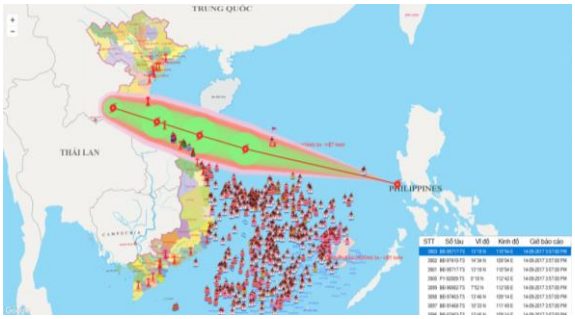


1.3. Scientific and technological breakthroughs and applicability in disaster prevention and control.

Remote sensing

Remote observations

New construction materials and technologies

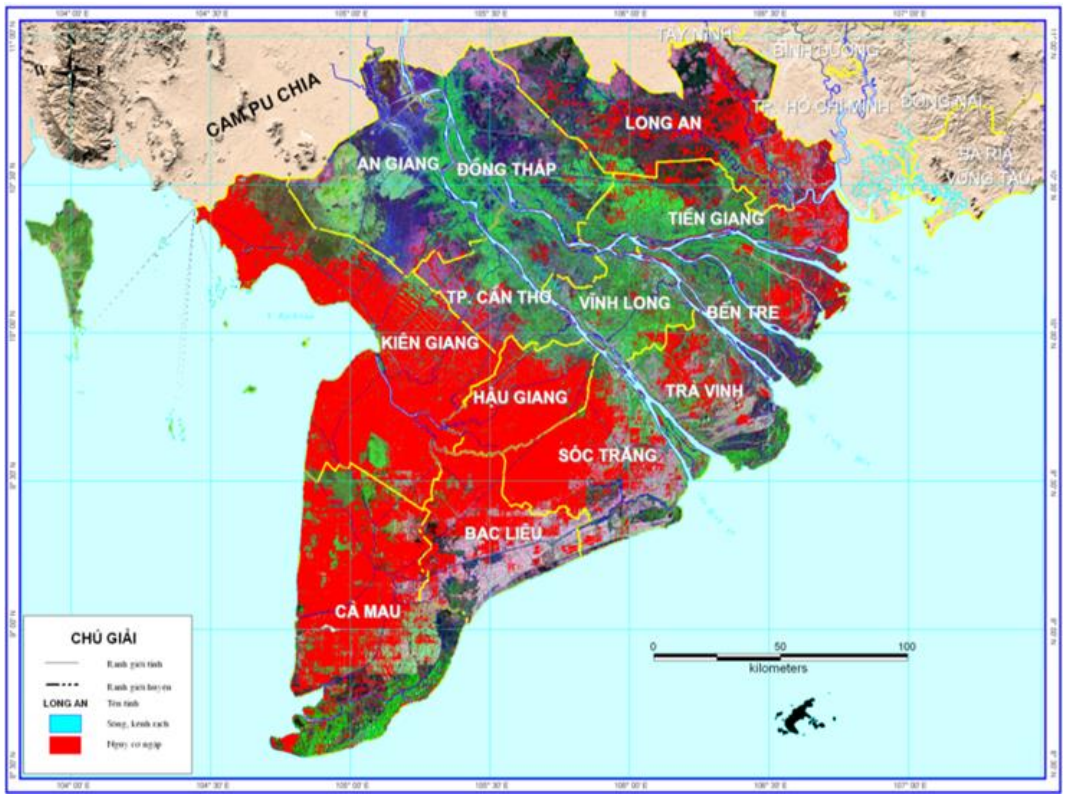


Boat and ship surveillance

1.4. Vietnam is integrating intensively and extensively into many international and regional fora as well as practical and effective activities in disaster prevention and control.

2. CHALLENGES

2.1. The climate change continues to be a challenge, with increasing extreme and extraordinary disasters, in terms of intensity, space, time and irregularity.

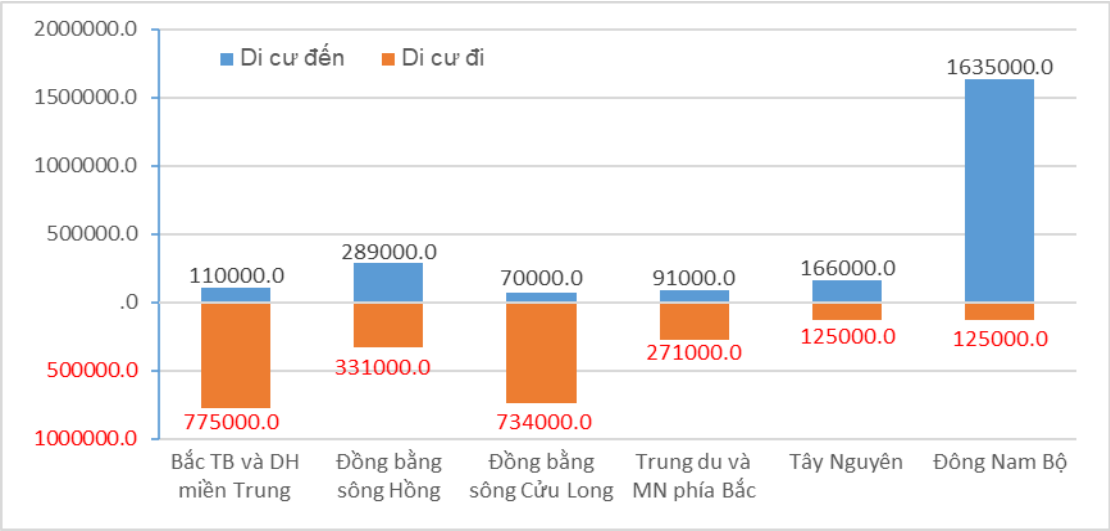


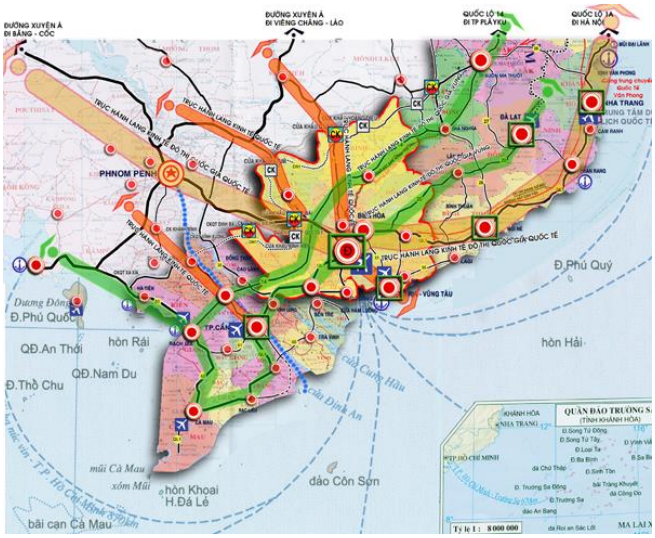
The coverage of innudation when the sea level rises 100 cm
(5th IPCC report, 2013)

2.2. The impacts of socio-economic development

- Rapidly growing population and economy, with increasing needs to be secured from disasters.

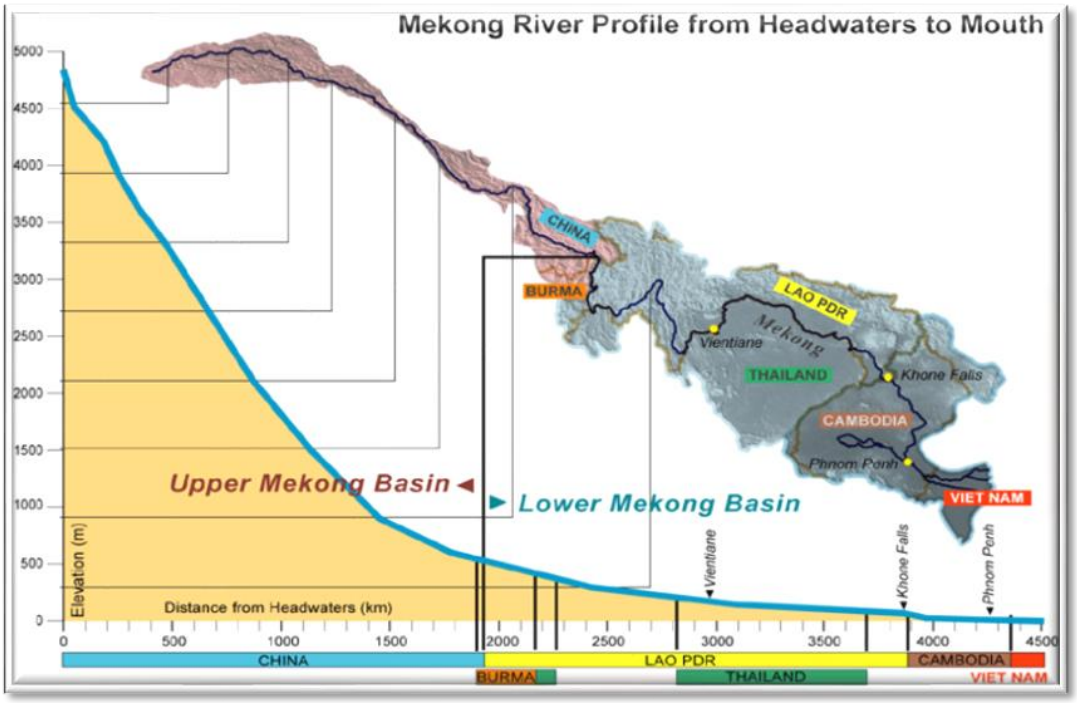
- Disaster prevention and control are not well integrated in to socio-economic activities; which increases exposures and even new disaster risks.





2.3. Upstream water use

CHINA	PDR LAOS	THAILAND	CAMBODIA
- Hydropower - Water transfer - Industry	- Hydropower - Irrigation/ agriculture	- Irrigation/ agriculture - Water transfer - Hydropower - Industry	- Irrigation/ agriculture - Girdle shaped dyke - Hydropower - Flood sewage - Tonle Sap lake interventions - Fishery - Industry - Population



III. KEY INDICATIVE MEASURES

1. Strengthen State administrative and regulatory capacity and oversight of disaster prevention and control at all levels

1.1. Improve the system of legal and regulatory documents, policies, strategies and plans.

1.2. Strengthen the apparatus, building capacity in the oversight and execution of disaster prevention and control.

1.3. Develop and operate the National, Regional and Local Disaster Responsiveness Commanding Centers.

2. Strengthen capacity of the system of disaster prevention and control structures

2.1. Strengthen and upgrade river dykes for climate change resilience.

2.2. Upgrade and repair irrigation reservoirs.

2.3. Build storm shelters for ships and boats.

2.4. Build and make arrangements for the implementation of the Overall Program on Prevention and Control of Flashflood and Landslides in Mountainous Provinces.

2.5. Develop and make arrangements for the implementation of the Overall Program on Disaster Prevention and Control in the Central Region.

2.6. Develop and make arrangements for the implementation of the Overall Program on Disaster Prevention and Control in the Mekong Delta Region.

2.7. Develop and Implement the Project on the Prevention and Control of River and Coastal Erosion and Integrated Coastal Area Management.

2.8. Complete the plantation of upstream protection forests and coastal protection mangroves.

2.9. Develop and implement integrated disaster risk management projects in river basins.

2.10. Conduct diagnostic studies and identification of complicated disaster risks.

2.11. Implement community based disaster risk management.

2.12. Develop the specialized hydrometeorological observation networks for disaster prevention and control; the disaster prevention and control work observation and monitoring system.

2.13. Develop and implement the projects on installation of disaster early warning systems.

3. Strengthen disaster forecasting and warning

3.1. Review and develop zoning of disaster risks and calibration of disaster risk levels.

3.2. Improve and moderize the network of hydrometeorological observation networks for earthquakes and tsunami.

3.3. Develop the network of towers for multiple disaster warning services in combination with local radio broadcasting services

3.4. Improve the quality of disaster forecasting and warning.

4. Strengthen capacity in search and rescue

Marine Rescue Viet Nam

Rehearsal of safe flood release in Dakrong Hydropower Plant, 2016

5. Strengthen communication and community awareness raising

The campaign of swimming lessons for disaster prevention and control in Vinh Bao - 2017

The campaign on disaster awareness raising in Cau Giay Upper-secondary School (Hanoi) - 2017

6. Strengthen scientific and technological application and international cooperation

7. Reinforce inspection, supervision and scrutiny

OBJECTIVES: By **2025**, basically be pro-active in disaster prevention and control and adaptive to the climate change, gradually develop a disaster-safe society.