

Climate Change Adaptation and Mitigation in Vietnam

Assoc. Prof. Dr. Do Dinh Toat
Hanoi University of Mining & Geology

Content

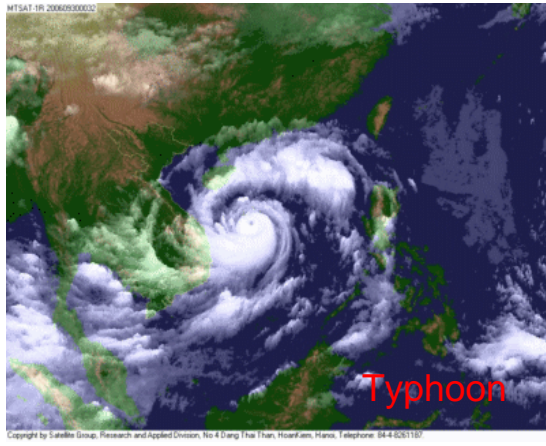
- 1. Impacts of Climate Change**
- 2. Vietnam – one of the top 5 vulnerable countries to Climate Change**
- 3. Response of Vietnam to Climate Change**
- 4. Some proposed projects in Vietnam on Climate Change adaptation and mitigation**

1. Impacts of Climate Change

A wide range of systems and sectors concerning the nature of future impacts by CC worldwide and regionally

- Freshwater resources and their management
- Ecosystems
- Food, fibre and forest products
- Coastal systems and low-lying areas
- Industry, settlement and society
- Health
- Disasters, etc.

2. Vietnam – one of the top 5 vulnerable countries to Climate Change



The images showing the dangerous hazards related to climate change

(M.T. Nhuan & P. V. Tan, 2009)

2. Vietnam – one of the top 5 vulnerable countries to Climate Change

- Temperature:
 - Very cold and Damaging cold events in winter
 - Patching heat in summer
- Rainfall:
 - Change in heavy rainfall events
 - Change in Temporal and Spatial distribution
- Extreme weather and Climate events (ECE):
 - Typhoon
 - Cold front
 - Strong wind
 - Drought
- Sea Level Rise (SLR)
- Other disasters induced and intensified by CC:
 - Flooding, debris flows, desertification.
 - Land slide, erosion, etc.

2.1. Impacts on Water Resources



Lowering
ground
water table



Lack of
fresh
water

2.2. Impacts on Agriculture and Food



Impacts on Forestry



Impacts on Aquaculture



Impacts on Energy

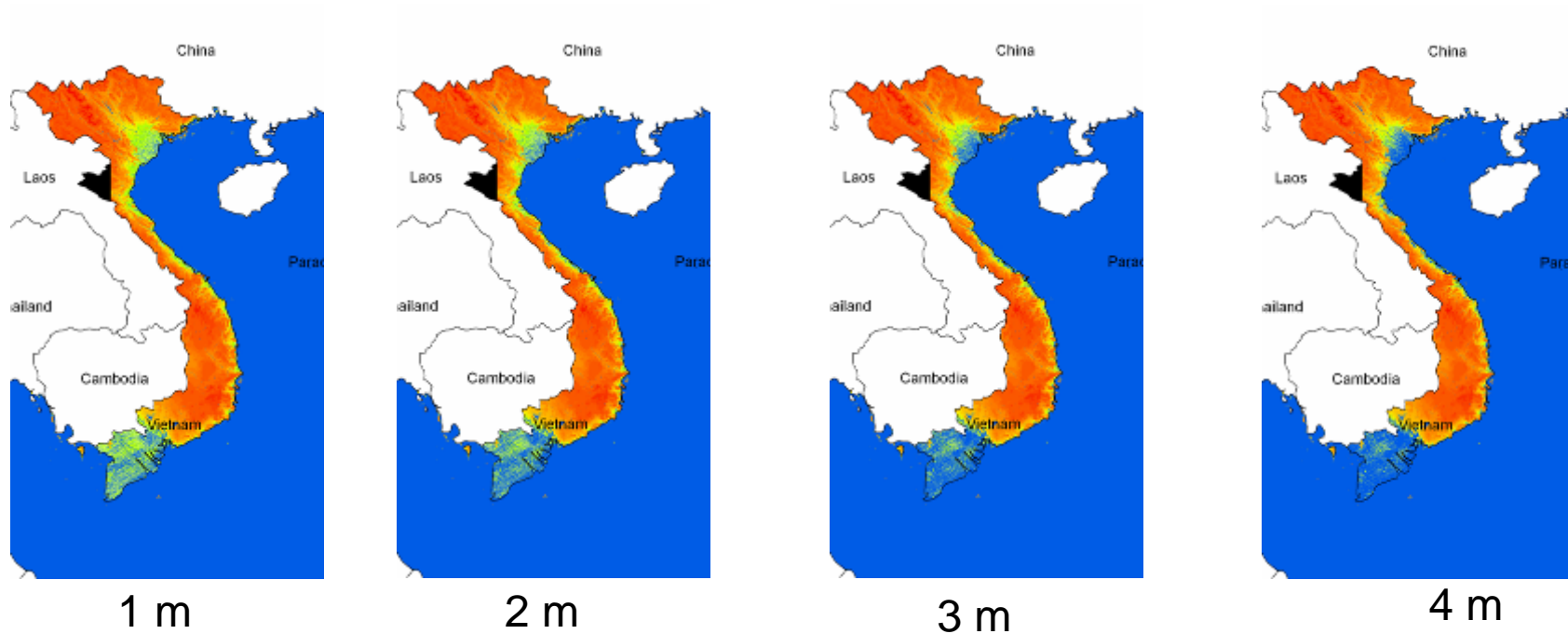


Impacts on Transport



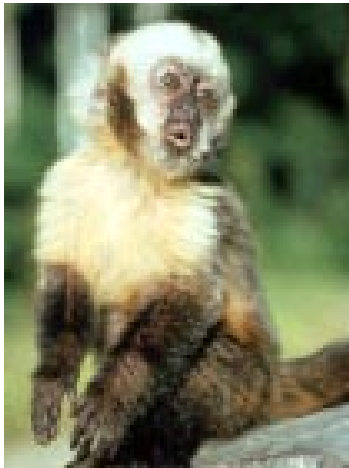
2.3. Climate change-related Hazards in Vietnam

Inundation due to Sea level rise



Sea level rise	1.0 m	2.0 m	3.0 m	4.0 m
Total Area (%)	5.2	8.5	11.9	14.2
Red River delta (%)	5	10	30	50
Cuu Long River delta (%)	10	50	80	100
Urban area (%)	11	18	27	34
Agricultural area (%)	7.5	12.5	17	21
Mangrove forest area (%)	29	49	68	80
Population (%)	12	18	26	32.5
GDP (%)	10	17	24	31

2.4. Impacts on Human Health, Culture, Sport, Tourism, Trade, Biodiversity, Service, and Other



3. Responses of Vietnam to Climate Change

NATIONAL TARGET PROGRAM TO RESPOND TO CLIMATE CHANGE

(The Government Resolution No 60/2007/NQ-CP,
Dated 3 Dec. 2007)

- Respond to Climate Change = Adaptation + Mitigation
- **Adaptation:** Adjustment in natural or human systems to a new or changing environment. Adaptation refers to adjustments in natural or human systems, intended to reduce vulnerability to actual or anticipated CC and variability or exploit beneficial opportunities.
- **Mitigation:** Actions resulting in reductions to the degree or intensity of GHG emissions.

Program Objectives

3.1 General Objectives:

- To assess Climate Change impacts on sectors and regions in specific periods;
- To develop feasible action plan to effectively respond to CC in short-term and long-term periods to ensure sustainable development of Viet Nam
- To take over opportunities to develop towards a low-carbon economy.

Program Objectives

3.2. Specific Objectives:

- To identify CC features of VN due to global CC; Assess impacts of climate variability, Sea Level Rise and Extreme Climate Events;
- To identify measures to respond to CC;
- To promote scientific and technological activities for responding measures;
- To enhance organisational structure, institutional capacity and the development and implementation of policies on CC;

Program Objectives

3.2. Specific Objectives (cont.):

- To enhance public awareness, responsibility and participation; human resource development;
- To expand international cooperation to obtain external supports, and joint international community's effort;
- To integrate CC issues into socio-economic development strategies;
- To develop action plan of all ministries/sectors and localities to respond to CC.

4. Some proposed projects

4.1. Rational disaster management system and mechanism (DMSM) in Vietnam

- Intergovernmental workshop
- Basis for establishment of DMSM
- Proposed DMSM in Vietnam

4.2. Disaster risk reduction for sustainable development in VN

4.3. Capacity building for disaster risk reduction

4.4. Capacity building for CC adaptation and mitigation in VN

4.5. CC and poverty reduction in VN

Thank you for your attention!