

**UNFCCC Asia Regional Workshop on Adaptation**  
*Beijing, 11-13 April 2007*

**Activities on Climate change  
Adaptation in Vietnam'S  
AGRICULTURE SECTOR**

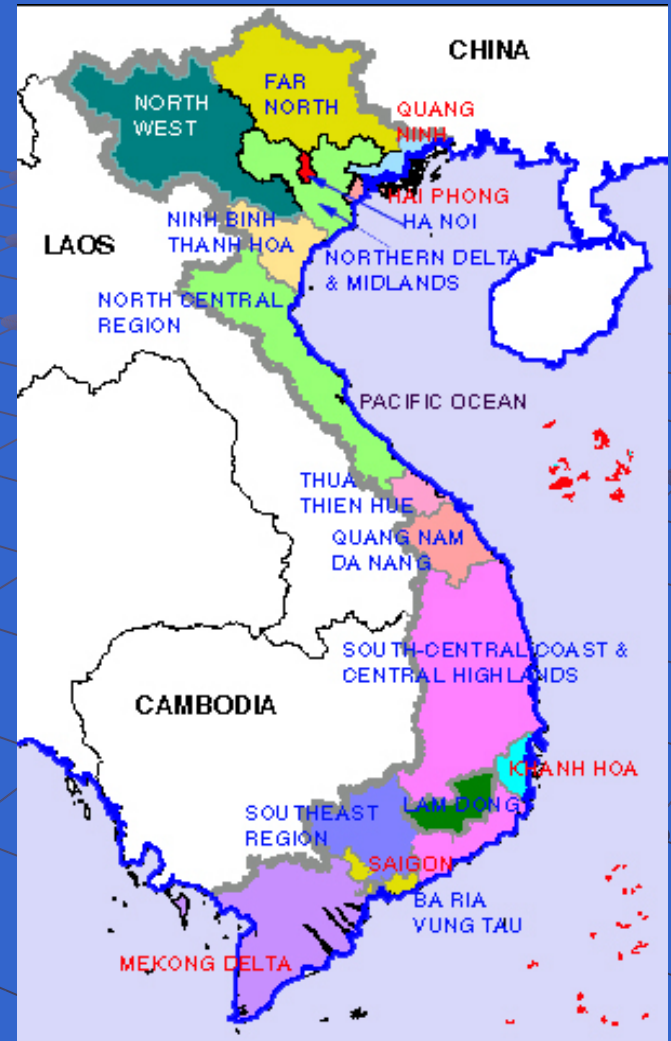
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# Contents

1. Introduction
2. Activities undertaken on V & A assessment
3. Gaps, needs and concern

# 1. Introduction

- Viet Nam ( $8^{\circ}27'-23^{\circ}23' N$  and  $102^{\circ}08'-109^{\circ}30' E$ ) located in Southeast Asia, It's stretching 1,650 km from north to south consists of 3,260 km of coastline and about 3,000 small islands.
- 6-8 typhoon/tropical cyclones affecting annually
- Vietnam is one of the most disaster-prone countries suffering from typhoons, tropical storms, floods, drought, seawater intrusions, landslides and forest fires.
- It is predominantly an agricultural country with 74% of its population are involved in agriculture. Drought in dry season, flood in rainy season affected regularly to agriculture production

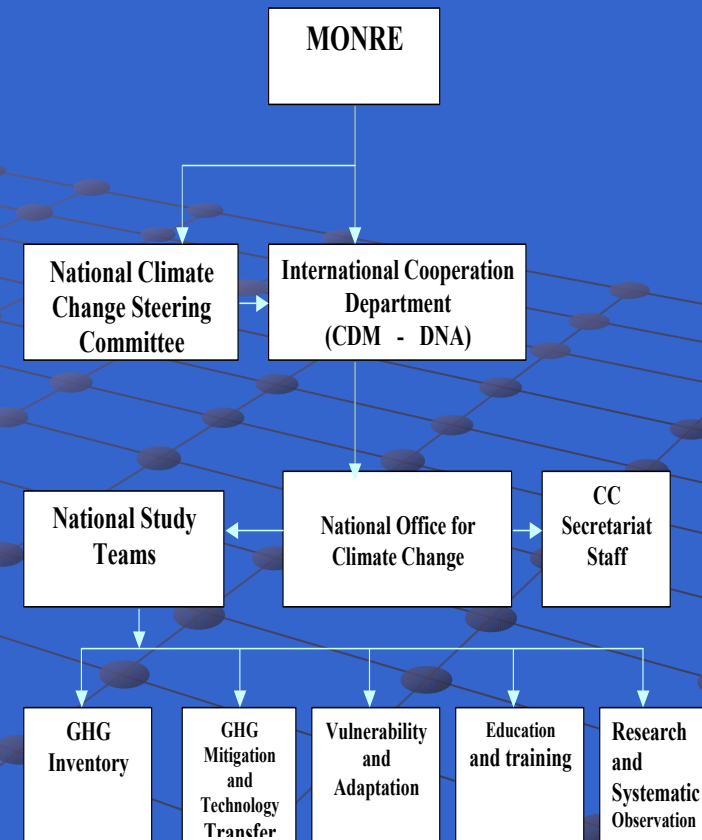


-The Ministry of Natural Resources and Environment (MONRE) is assigned by GOV to be the National Focal Point to implement UNFCCC and KP.

-CC Working Teams and National Technical Expert Groups were established to implement CC projects.

-Studies, development and assessment of CC V&A were conducted within CC project during 1996-2005

-INC completed and SNC under implementing

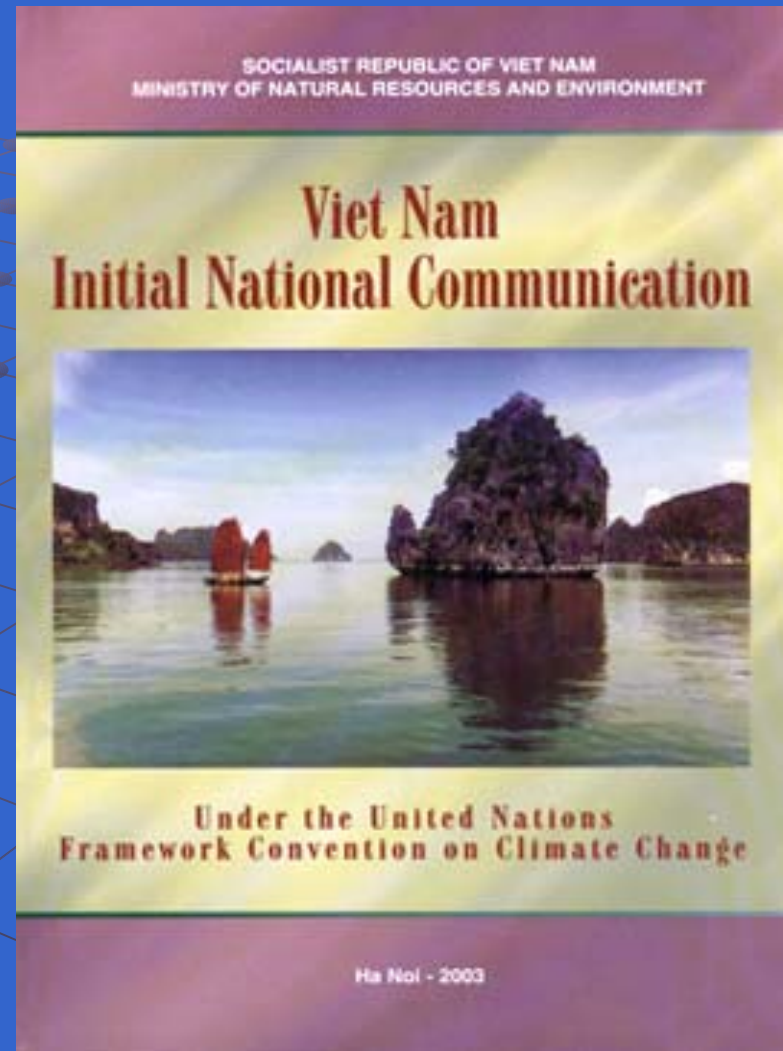


## 2. Activities undertaken in V&A assessment

### 2.1 In the initial national communication

a/ The vulnerability assessments were qualitatively assessed for seven sectors: i.e. agriculture, forestry, coastal zone, fishery, water resources, energy & transportation and public health. Various adaptation measures for the above mentioned sectors were identified based on such qualitative description.

b/ The scenario data for vulnerability assessment was developed using the CSIRO average scenario. This climate change scenario showed the simulations of temperature, rainfall and sea level rise in seven regions included Northwest & Northern of North Vietnam, Northern plain, North of Central, Middle of Central, South of Central, Central High land, South of Vietnam



## c. Impacts

- Drought, flood, and potential evapotranspiration would also be increased, adversely affecting agriculture yields and productivity
- The length of growing period will increase along with the increase in the annual average temperature and average minimum temperature
- The nation's fertile agricultural lands, located in river basins and dependent on irrigation, are highly vulnerable to fluctuations in water levels, which may increase with climate change
- Sea level rise by 1m would cause flood and inundation; about 40,000 km<sup>2</sup> will be flooding annually, most of areas is in major low-lying of the Red River and Mekong River delta; 17 million people will be subject to annual flooding; The wetlands affected and threatened by sea level rise could be as much 1700 km<sup>2</sup> which are about 60% of Vietnam's coastal wetlands

# Changes of the yield of rice and maize under Climate change

Changing(±%) of Spring rice - Hanoi	2020	2050	2070
Comparison with base year (±%)	<b>-3.7</b>	<b>-12.5</b>	<b>-16.5</b>

Changing(±%) of Summer rice - Hanoi	2020	2050	2070
Comparison with base year (±%)	<b>-1.0</b>	<b>-3.7</b>	<b>-5.0</b>

Changing(±%) of Maize - Hanoi	2020	2050	2070
Comparison with base year (±%)	<b>+0.7</b>	<b>+7.2</b>	<b>+7.2</b>

## d. Adaptation measures

- Re-structure the Agriculture production plan and cropping patterns;
- Adjusting cropping calendars (when to plant), cropping patterns (where), crop varieties (what), taking climate change into consideration. For example, adjusting the calendar for short season crops such as rice, maize, sweet potato, soybean, groundnut and others may allow more crops per year, due to the extension of the growing season;
- Using irrigation water more efficiently;
- Developing crop new varieties that can withstand severe environmental conditions (either drought or flood);
- Development of farming systems and techniques that are appropriate to climate change.



## 2.2. Carried out some bilateral V&A project at local level ( provinces, districts..)

A few V&A projects were undertaken in the Central of Vietnam where it is the most effected by weather calamities

### 1/ “Disaster Preparedness concerned to Climate Change” ( a pilot project)

- +Funded by Netherlands Government through Netherlands Red Cross

- +Duration: from 2003-2005

- +This project produces information materials on CC and natural disasters, raise awareness amongst decision makers in 5 provinces at the Central of Vietnam and builds capacity of the Vietnam Red Cross on CC and disaster preparedness, vulnerability assessment and risk reduction measures, organizing popular campaign on disaster preparedness and climate change.

(<http://www.vnrc.org.vn/project.asp>)

## 2/ Project: “Capacity – building for adaptation to climate change ( CACC)”

+ Funded by Canadian International Development Agency (CIDA) under the Canada Climate Change Development Fund from 2002-2005

+ Project location: Quang Dien and Phu Vang Districts in Thua Thien – Hue province at the Central of Vietnam.

+ The main objective is to strengthen capacity to plan and implement community based anticipatory adaptation strategies through disaster preparedness and integration of risk reduction and mitigation into local development plan. The project then assisted in creating “ Safer Village Plans” and “ Safer Production Plans” which describing the local situation and measures to adapt to climate change and mitigate the impacts of disasters at the village, commune and district levels.

( <http://www.cecivietnam.com/CACC/index.htm> )

### **3/ Project “The Vietnam Coastal Zone Vulnerability Assessment’ (1994-1996)**

It was funded by the Netherlands Government. The objective was to assess the vulnerability of the entire coastal zone of Viet Nam to the impact of altered sea level due to climate change, and to outline steps towards integrated coastal zone management in Viet Nam.

After that (2000-2003), the 3-year project VNICZM aimed at establishing a longer term Vietnam Integrated Coastal Zone Management Programme and focused on the goal of advising the Vietnamese Government in the planning and development of the Vietnamese coastal zone, its communities and its resources in a sustainable way. ( Pilot in Nam Dinh, Thua Thien-Hue, Baria-Vung tau provinces)

The project is coordinated by the Vietnam Environment Protection Agency (VEPA) of MONRE

<http://www.survas.mdx.ac.uk/pdfs/3huan.pdf> and

[http://www.nea.gov.vn/projects/Halan/English/VNICZM\\_HomePage.html](http://www.nea.gov.vn/projects/Halan/English/VNICZM_HomePage.html)

### 3. Gaps, needs and concerns

- Weak national capacity for comprehensive quantitative and qualitative Vulnerability and Adaptation (V&A) assessment, which should be put in broader socio-economic context to arrive at cost-effective adaptation measures;
- Lack of comprehensive implementation plans for adaptation;
- Limited staff capacity, particularly the analytical, planning, monitoring and evaluation skills for assessing trade offs between development decisions;
- Poor data on adaptation options and lack of mechanisms for information sharing and management across sectors; and
- Limited awareness of stakeholders and population on climate change adaptation.

# Needs and concerns

- Insufficient and limited funding for adaptation
- Strengthening of international funding mechanisms for adaptation (SCCF, LDCF, AF...) and improving their flexibility
- Mobilizing maximum possible the co-financing from domestic capital with the policy of mainstreaming CC issues to development strategies
- Developing and transferring of adaptation technologies
- Priority on setting up a national strategy for adaptation to climate change and comprehensive implementation plans for adaptation. Within the SNC the “ Policy Framework for implementing adaptation measures” will be developed

# Policy Framework for implementing adaptation measures

- (1) Identification of cost-effective adaptation measures for climate change and related extreme events;
- (2) Identification of interactive mechanism between key socio-economic sectors, and their sub-sectors, as well as between public and private sectors on climate change impacts and adaptation;
- (3) Development of special information materials (e.g., maps, diagrams, decision matrices) for policy makers;
- (4) Identification of priority measures recommended for inclusion in sustainable development strategy;
- (5) Identification of barriers and necessary actions for integration of adaptation measures in the mid-term and long-term national development plans, including climate-related disaster risk reduction.