Climate Change Impacts and Adaptation Efforts in Vietnam

Le Minh NHAT PhD
Director of Climate Change Adaptation Division – DMHCC- MONRE
E mail : nhatkyoto@gmail.com
Outline

1. Climate change in Viet Nam
2. Adaptation Policies and Adaptation Measures
VIET NAM

- Vietnam has experienced very high growth rates in the past decades
- Lately, growth has been less impressive

- Population: **92,477,857** (2013)
- Area: **331.212 km²**
- Economic reform: **1986**

GDP growth:
- 8% during 1990-1997
- 7% during 2000-2005
- 5-8% from 2006-date

**GDP Growth Rates (annual %)**

- 2000: 6.8%
- 2001: 6.9%
- 2002: 7.1%
- 2003: 7.3%
- 2004: 7.8%
- 2005: 8.4%
- 2006: 8.2%
- 2007: 8.5%
- 2008: 6.3%
- 2009: 5.3%
- 2010: 6.8%
- 2011: 6.0%
- 2012: 5.0%
1 - Climate change in Viet Nam

- Annual average temperature increased about 0.5°C. 
  *(During the last 50 years (1958-2007),)*
- Winter temperatures increased faster than those of summer.
- Inland temperatures increased faster than those of coastal and island zones.
The annual rainfall increased in the Southern climate zones while decreased in the Northern ones.

South Central region: the rainfall in dry & wet seasons and annual rainfall increased strongest (up to 20% over the last 50 years)
Sea level rise along Vietnam coasts was at the rate of about 2.8mm/year.

Coastal zones in the Central and South West regions: sea level rose strongest, about 2.9mm/year
SLR Scenario: 100 cm

South Asia  Việt Nam
Baseline Scenario Average of 1991-2000
SALINITY INTRUSION

A2 Scenario
SLR 35 cm
SALINITY INTRUSION

B2 Scenario
SLR 35 cm
Climate change impact

- 1 of Top 5 countries/nations most vulnerable to climate changes. Sea level rises 1m, **5% land loses, 11% population affected**, 7% agricultural activities impacted, **10% GDP reduced**.
- Most vulnerable regions: **Red River Delta and Mekong River Delta**
- Most vulnerable sectors: **Agriculture, Water Resources, Transport, Trade, Education**…
- Most vulnerable group: **the poor**, women, children, and ethnic minorities…
- Climate changes in Vietnam: **increase** in strengths and frequencies of extreme weather, disasters, sea level rise, land erosions and slides.
Impacts of climate change on Viet Nam’s population by sea level rise scenarios, WB, 2007
Impacts of climate change on Viet Nam’s GDP by sea level rise scenarios,
WB, 2007
Institutional arrangements

GOVERNMENT
NATIONAL CLIMATE CHANGE COMMITTEE

MOF  MPI  MOC  MONRE  MARD  MOIT  MOT

Offices of CC Programmes
Line departments in provinces

Office of NCCC
PMR Steering Committee
PMU (DMHCC/MONRE)

International organisations & NGOs
Community groups

Direct line of command / reporting
Cooperation / Partnership
Policy Context

Evolution of climate change policies in Viet Nam

Resolution 24/NQ/TW (2013) on responding to climate change by Central Party Committee

- National Climate Change Strategy (2011)
- National Strategies for economic sectors
- National Action Plans for economic sectors
- National Target Programme to Respond to Climate Change (NTPRCC-2008)

- National Green Growth Strategy (2012)
- National Target Programme for economic sectors
- NTPRCC for the period 2012-2015 (2012)

- Socio-economic Development Plan (2010-date)

- Climate change issues integrated in the Socio-economic Development Plan (2010-date)

- Plan for GHG emission management and carbon market development (Decision 1775/QD-TTG by Vietnam Prime Minister)
Policy Context
2. Programs/Projects

◆ Programs

- National Target Program to respond to climate change (2012 – 2015)- NTPRCC
- National Target Program on Energy Efficiency (2012 - 2015) -NTPEE
- Support Program for response to climate change - SPRCC
- USAID Vietnam Clean Energy Program
- Donors: JICA, UNDP, ADB, WB, AFD, USAID,…
Adaptation measures

Coastal zones

✓ **Full protection**: strengthening and elevating embankments nationwide

✓ **Adaptation**: accepts a certain level of climate change-induced losses, emphasizes *damage* cost-sharing, invests in the construction of “adaptive” infrastructure, and focuses on developing agricultural techniques and elevating houses above flood levels.

✓ **Withdrawal**: “averts” sea-level rise impacts by leaving coastal areas and retreating inland.
Adaptation measures

Agriculture

- **Short-term measures**: Prevent soil erosion, implement soil protection, provide proactive crop irrigation, select crops suited to climate change, etc.

- **Long-term measures**: Adopt climate change-suited cropping patterns, create new species, modernize cultivation and stockbreeding techniques, etc.

- **Management and harvesting practices**: Redistribute regional crop and livestock production to better suit changing climate conditions, provide additional incentives for agriculture, forestry and aquafarming, etc.
Adaptation measures

Water resources

 ✓ Formulate and integrate sustainable water resource development planning
 ✓ Reinforce, upgrade, complete existing and add new water resource infrastructure
 ✓ Upgrade and modernize hydro-meteorological observation, hydrological long-range and seasonal forecasting, and natural disasters forecasting
 ✓ Awareness raising
Next steps

- Implement key, urgent and priority tasks, identified in the Action Plan to respond to climate change of related ministries.
- Update the Action Plan to respond to climate change of each locality.
- Increase surveys and basic scientific research and application of adaptive technologies.
- Implement the pilot programs to adapt to climate change in Quang Nam and Ben Tre provinces and recommend the replication.
Climate Policies

Gaps:
- Human Resource
- Statistical Data
- Co-operation mechanism
- Overlap functionary aspects
- Regulations/Laws on Climate change Adaptation and Mitigation
CLIMATE CHANGE ADAPTATION

- Data-from climate to vulnerability, impacts and adaptation options-with strong operational and planning insights.
- Climate-related services to both government and commercial clients in: Consulting, Knowledge Management
- Training (Adaptation Academy)
- Build a adaptation knowledge tool, to train clients in best adaptation practices or to find other innovative adaptation solutions.
- Develops solutions through a growing
- Build capacity
Thank you very much!

Trân trọng cảm ơn!