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**Community-based Adaptation to Climate Change in Vietnam**



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## Content

1. Overview of Community-based Adaptation (CBA) to Climate Change
2. Climate Change in Vietnam
3. Community-based Adaptation to Climate Change: The case of Vietnam



# 1. Overview of CBA to climate change

## Adaptation to climate change

- CC causes severe and irreversible impacts to all countries, especially developing ones.
- Adaptation to CC plays an important role.
- Adaptation: The process of adjustment to actual or expected CC and its impacts to reduce/avoid harmful impacts or exploit beneficial opportunities (IPCC, 2014).
- CC adaptation efforts focus on national planning and top-down approach.
- Knowledge and experience of communities have not been fully mobilized; adaptation activities might not meet local priorities and needs.



# 1. Overview of CBA to climate change

## CBA to climate change

- A community-led process, based on local priorities, needs, knowledge and capacities, which can empower people to cope with and plan for CC impacts
- A bottom-up approach:
  - Targeted at those most affected by climate change
  - Including community-based development activities, practices, policies.
  - Focus on potential impacts of CC on livelihoods and vulnerability to natural disasters
  - Integration of both scientific and local knowledge into planning process
- CBA projects are in operation in vulnerable communities in both developing and developed countries
- Supported by international & local NGOs, international organizations, governments, and financial institutions through community-based development projects

## 2. Climate change in Vietnam

### Country fact sheet

- Population: 91.7 million (2015)
- GDP growth: 6,6%/year (2001-2015)
- GDP structure (2015):
  - Agriculture-forestry-fisheries: 17.4%
  - Industry and construction: 38.8%
  - Service: 43.8%
- GDP per capita per year: 2109\$ (2015)
- Cost of natural disasters: 250 million \$ (2015)
- According to Climate Change Vulnerability index (CCVI) – UNDP (2012)
  - is ranked 23rd out of 193 countries
  - is identified as one of 30 “extreme risk” countries



## 2. Climate change in Vietnam

### • Observations

- Average temperature: increase of 2°C
- Sea level rise: by 20 cm
- Average rainfall: decrease of 2% per year
- Storms and typhoons are increasingly intense and happen more frequently

### • Trends

(Medium Emission Scenario, MONRE 2012), by the end of 2100:

- Average temperature: increase by 2-3°C
- Sea level rise: by 57-73 cm
- Annual rainfall would increase by 2-7%



## 2. Climate change in Vietnam

### Impacts on sustainable development

- *Economic dimension*

- Annual economic cost of natural disasters: 1.3-1.5% of GDP.
- Annual economic cost of climate change: 5% GDP (11% GDP in 2030 at BAU scenario)
- Agriculture and fishery are especially hard hit



## 2. Climate change in Vietnam

### Impacts on sustainable development

- *Social dimension*

- 1% increase in hazard risk is associated with a 0.35% increase in the poverty rate.
- Extreme weather events reduced expected job creation of 0.22%/year
- Unstable and risky agriculture jobs



## 2. Climate change in Vietnam

### Impacts on sustainable development

- ***Environmental dimension***

- 60% of the nation's coastal wetlands could be threatened by 1m SLR
- 40% of Mekong Delta's area and 11% of Red River Delta's area would be inundated due to 1m SLR
- Saltwater intrusion will threaten freshwater supply
- More frequent droughts with significant impacts on ecosystems, especially agricultural land



## 2. Climate change in Vietnam

### Efforts on Mitigation and Adaptation

- ***At international level***

- Signed the UNFCCC in 1992 and ratified it in 1994.
- Signed the Kyoto Protocol in 1998 and ratified it in 2002.
- Released Initial National Communication (in 2003) and Second National Communication (in 2010).
- Submitted BUR1 (Biennial Update Report) in 2014.
- Submitted INDC (Intended Nationally Determined Contribution) in 2015.
- Signed the Paris Agreement on the Climate in April, 2016.
- Received financial and technical supports from United Nations, bilateral donors, multilateral funds, and non-governmental organizations.

## 2. Climate change in Vietnam

### Efforts on Mitigation and Adaptation

- *At national level*
  - Agenda 21 for Sustainable Development (2004)
  - Second National Strategy and Action Plan for Disaster Management and Mitigation (2007)
  - National Target Program to Respond to Climate Change (2008)
  - National Strategy on Climate Change (2011)
  - National Action Plan on Climate Change (2012)
  - National Strategy on Green Growth (2012)
  - National Action Plan on Green Growth (2014)

## 3. CBA to climate change in Vietnam

### Poor communities in Vietnam are vulnerable to CC impacts

- They locate in geographically vulnerable areas
  - Mountainous areas
  - Coastal areas
- They are heavily dependent on natural resources for their livelihoods:
  - Agriculture
  - Fishery (fishing, aquaculture)
- 3 regions with highest poverty rates are the regions that are most vulnerable to natural disasters in Vietnam, including
  - **Northern mountain**
  - **Central coast**
  - **Central highland**



## 3. CBA to climate change in Vietnam

### CBA projects in Vietnam

- Implemented at commune level
- Supported by UNDP-GEF, local NGOs, international NGOs (Oxfam, USAid, CARE International,...), international governments (Australia,...)
- To help communities to adapt to impacts of droughts, saltwater intrusion, floods, storms
- In sectors:
  - Agricultural production
  - Agro-development
  - Aquaculture
  - Natural resource management (mangrove, land, water)
- Participatory process involving all stakeholders in the commune and implemented in partnership with local authorities



## 3. CBA to climate change in Vietnam

### For examples, several CBA projects in Vietnam

- **Improving community's adaptive capacity to CC**, implemented by Centre for Rural Development in Central Vietnam and Challenge to Change
- **Strengthening and developing local rice seed systems to help adapt to Climate Change**, implemented by Sustainable Rural Development – Local NGO
- **Participatory Watershed Management**, implemented by CARE International in Vietnam
- **CBA in the coastal zone**, implemented by Marine life Conservation and Community Development, Local NGO
- **Integration of Disaster Risk Management and Climate change Adaptation into the SEDP**, implemented by Oxfam
- **7 UNDP-GEF CBA projects** in Central coast of Vietnam (from 2009)
- .....



## 3. CBA to climate change in Vietnam

### Adaptation strategies at community level

#### (1). Promoting adaptive and sustainable livelihoods

- Transformation of rice cultivation practices
- Developments of demonstration models of adaptive and sustainable rice production
- Development and application of new local rice varieties that are tolerant to droughts and salinity.
- Development of sustainable fisheries (aquaculture and fishing)

#### (2). Management

- Natural resources management
- Disasters risk management

#### (3). Capacity building

- Training on CC, CC impacts, CC adaptation measures
- Small-scale credit

#### (4). Governance

- Mainstreaming DRM and CCA into SEDP at local level (commune, district)



## 3. CBA to climate change in Vietnam

### Achievements

- Reduce adverse impacts of CC on agriculture production (especially rice cultivation) and fisheries
- Improve agriculture-derived income and commune's food security
- Enhance community's adaptive capacity to droughts, floods, storms, saltwater intrusion





## 3. CBA to climate change in Vietnam

### Lessons learned

- Integration of both scientific information and local knowledge/experience
- The role of social capital via social network
- Livelihoods diversification
- Sustainable natural resource management and disaster risk
- Multi-stakeholder coordination
- The role of women



## 3. CBA to climate change in Vietnam

### Challenges

- Documentation of best practices and sharing
- Project-based initiatives → scaling up current CBA initiatives
- Weak community's adaptive capacity to climate change
- Balance between community-driven approach and top-down approach to CBA
- Mainstreaming DRM and CCA into local SEDP



## 3. CBA to climate change in Vietnam

### The way forward

#### *Context*

- Viet Nam's traditional perception of disasters is water-related. Floods, storms, and droughts count for nearly 80% of the natural disasters in Viet Nam. Viet Nam's high capacity to respond to floods and storms is recognized internationally.
  - But this capacity is not equivalent in responding to long-term CC impacts, including drought and salt water intrusion.
  - CCA and DRM should address multiple hazards and focus on vulnerability reduction and other long term measures.
- A strong need to **build and strengthen capacities** to manage these impacts based on a comprehensive understanding of the linkage between disaster risks and long-term CC impacts.



## 3. CBA to climate change in Vietnam

### The way forward

#### *Implications*

- (1) To enhance communication via expansion of social network on CC
  - To raise community's awareness about CC impacts
  - To share experiences and best practices of CC adaptation
- (2) To strengthen community's adaptive capacity to CC
  - To improve access to resources and facilities to implement CC adaptation measures
  - To develop sustainable livelihoods models in CC context
- (3) To improve coordination mechanism among stakeholders
- (4) To develop long-term strategy for CBA, not only project-based initiatives
- (5) To mainstream DRM and CCA into SEDP at different levels

*Thank you!*



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