Mekong Delta
Climate Change Forum

Climate Change: Global Perspectives and Relevance for the Delta

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World Bank Strategic Framework for Climate Change

1. Support climate action in country-led development processes
2. Mobilize additional concessional and innovative finance
3. Facilitate the development of market-based financing mechanisms
4. Leverage private sector resources
5. Support accelerated development and deployment of new technologies
6. Step up policy research, knowledge, and capacity building

Outline

- WB Strategic Framework for Climate Change
- Global Perspective on Climate Change: World Development Report 2010
- Economics of Adaptation to Climate Change
- Climate Resilient Cities: A Primer
- Adaptation on National scale
- Adaptation in a City: Bangkok
- Adaptation at Local Level: What Can be Done?

World Development Report 2010: Development & Climate Change

- Act now: delays will make future adjustments to CC harder
- Act together: Inclusive solutions—developed and developing countries together--much more cost-effective
- Act differently: Transform development model towards low-carbon growth

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WDR 2010 on Adaptation

- Prepare for extreme events
- Integrate risk management into development plans
- Invest in information
- Share the risk
- Consider alternatives

Economics of Adaptation to Climate Change

- Initiated by WB in 2008 with support from the Netherlands, Switzerland and the UK
- Objective: shed light on adaptation costs (globally & in six case study countries)
- Main finding: cost 2010-2050 of adapting to 2 degree C warming: $75-100 bn. per year
- Separate report including Vietnam case by March 2010

WDR 2010 on Mitigation

- Reduce energy intensity
- Invest in renewable energy
- Protect forests
- Build climate-smart cities

Promoting Climate-Smart Growth

Economics of Adaptation to Climate Change (EACC) Country Case Study: Vietnam

- In parallel with global track, EACC carrying out country case studies in 6 countries, including Vietnam
- Vietnam case studies are Agriculture/Water, Aquaculture, Forestry, CGE, Social Vulnerability, and Coastal Infrastructure (ports)
- Expected to inform final estimates of global adaptation costs and to help inform GoV policies
- Counterparts or implementing agencies include MONRE, MARD, MOF, MOT, and many research institutes, and universities

Climate Resilient Cities

A Primer on Reducing Vulnerabilities to Disasters:

- A tool for city governments in the East Asia Region to plan for climate change impacts and natural disasters
- Gives local governments information to actively engage in training, capacity building, and capital investment programs
- Published by World Bank (2009)

Adaptation at City Scale

Climate Change Impact and Adaptation Study Bangkok

Objectives of the study:

- Assess climate change scenarios until 2050
- Identify most vulnerable areas
- Quantify the likely magnitude of economic damage
- Analyze appropriate intervention scenarios

Adaptation at National Scale

WB projects and studies in all regions. A few general lessons:

- Development remains imperative, but must take a new form
- Development reduces reliance on climate sensitive sectors
- Boost household adaptation through education, health, savings, insurance
- Climate proofing still needed
- Low carbon growth will help minimize global trends

Bangkok: Context

- Bangkok covers an area of 1,600 square km in the delta of the Chao Phraya River Basin
- Climate characterized by the tropical monsoon
- Basin area flat with an average elevation of 1-2 meters above sea level
- The population about 15 million

Bangkok: Main Findings

- Damage assessments for 16 scenarios and 9 categories
- Most significant damage category: damage to buildings
- About 1 million people impacted by 30-year flood
- In baseline scenarios, damage cost for 10-year return flood, $0.5 bn. & $2.3 bn. for a 100-year flood
- In worst case 2050 climate change scenario damages increase to $2.7 bn. and $7.2 bn. respectively

Adaptation at Local Level

Examples of measures supported by the WB:

- Typhoon-proofing public buildings—schools, hospitals, other essential services
- Improving dike systems to handle sea level rise and saltwater intrusion
- Watershed stabilization and reforestation
- Using wetlands as tool to combat sea level rise
- Managing coastal zones through land use planning
- Training and equipping health providers to deal with increased incidence of vector-borne diseases

Bangkok: Recommendations

- City planning needs to systematically incorporate the expected impacts of climate change
- Land subsidence needs to be more strictly controlled
- Dikes need to be raised, pumping capacity increased and drainage improved
- Coastal erosion measures need urgently to be undertaken
- Early warning capacity and disaster response should be enhanced
- A flood insurance system needs to be put into place

Summary Points

- Climate change is already happening and future increases in temperature inevitable
- Much depends on success of mitigation
- Adaptation needs to impact planning at all levels
- Climate-proofing of investments to account for future changes
- Adaptation will be expensive
- Much technology already available
- Good adaptation is good development!

Thank you!

For further information:

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