



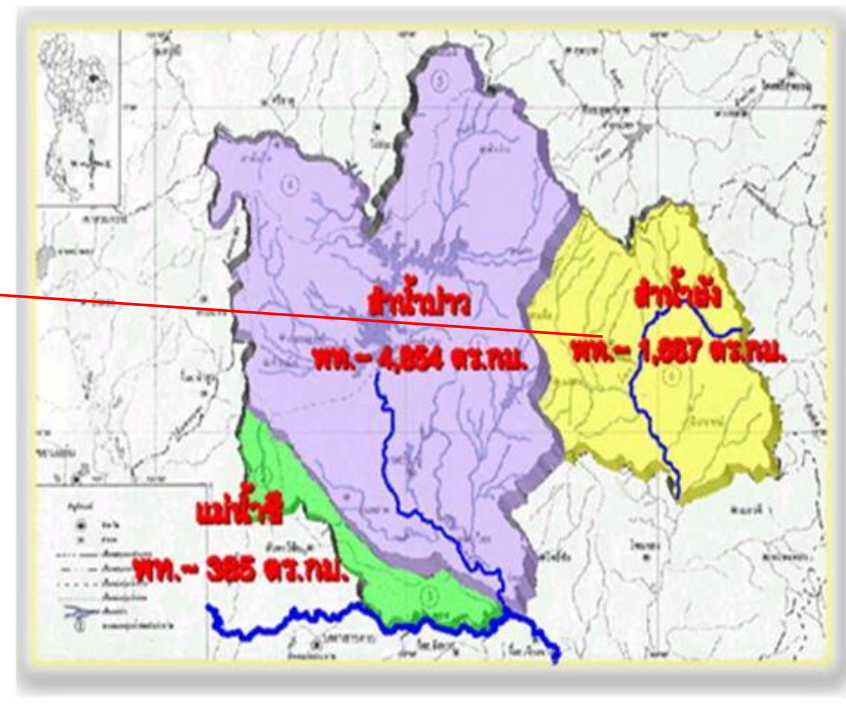
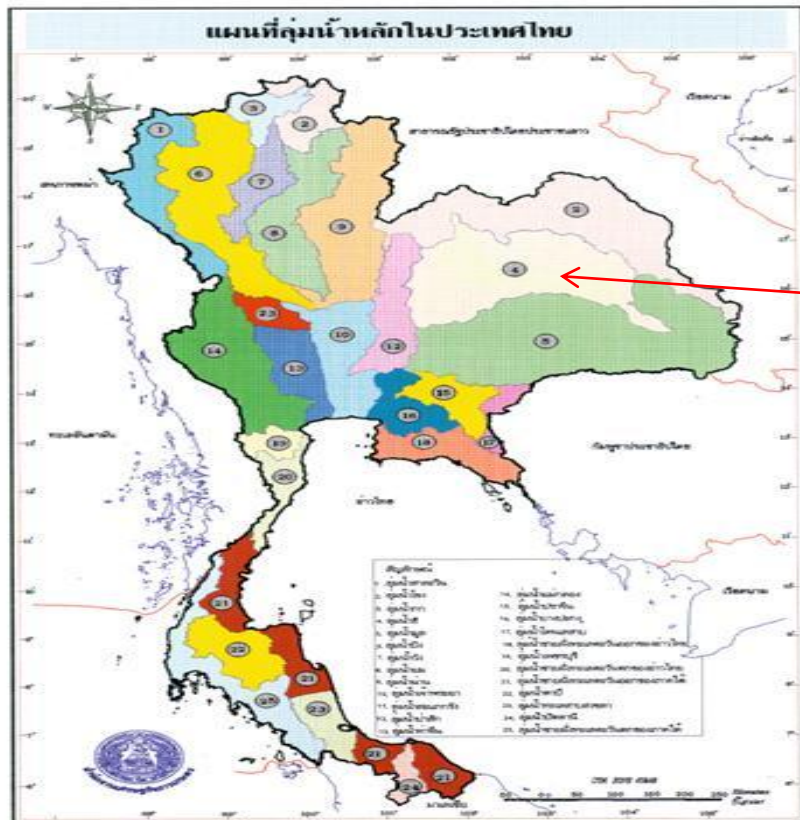
NE Thailand Adaptation to the Climate Change Impacts : Direct Experiences and Key Messages from the Most Hardest-hit Communities

Yanyong Inmuong
Khon Kaen University
Thailand

Sixth Learning & Sharing Seminar on Mainstreaming Climate Change Adaptation into River Basin
Planning and Development: Challenges and Opportunities

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- NE Thailand encountered serious climate extreme impacts
- We selected 'the Young River Sub-Basin' to be a case study for more understanding about CC adaptation (2011)



Vulnerabilities

- Highland rainfed small-scale farmland holders
- Land clearing with minimal vegetation landscape
- No innovation for alternative water sources
- Poor soil quality ([need intensive chemical fertilizer use](#))
- Prone to frequent insect and pest attacks ([need more pesticide](#))
- Dependent on mono-cropping
- Lack of workforces



Impacts

- Seasonal rainfall shift alters cultivation regime (cause of much uncertainty on when to plant)
- High costs for farm investment (fertilizer, pesticide and tractor ploughing)
- Minimal crop yield
- Increase debts
- Increase transformation from rice paddocks to sugarcane and cassava fields (less water use but food security becomes the case)
- Lack of drinking waters and for household uses (need to buy)
- More diarrhea diseases incidence
- Increase migration to big cities and industrial areas (only elder and children remained)



Coping Strategy : Some Implications from Rural Family Success Story

- Construct farmland pond
- Use local seeds (more tolerant to climate extreme and pest attack)
- Some turn to integrated farming practice (share risk)
- Use household and community made organic fertilizer (need more animals)
- Restore and rebuild farmland & community forest remnant s
- Stop burning dry rice straw in the paddock (but turn into organic soil conditioner)



Central-Provincial-Local Government Efforts

- Much focus on 'mitigation' activities with less emphasis on 'adaptation'
- Very few adaptation R&D activities led by Central-Provincial-Academia Institutions
- Central and Provincial Govts. have no explicit mainstreaming adaptation plan down to the community
- Water Resource Development Policy and Program limited financial support largely to medium-mega scale projects
- Some Local Govt. initiates its own adaption activities for communities but receives less attention and financial support by the Central and Provincial Govts.
- Many Provincial and Local Govts. do not have any idea about 'climate change adaptation strategy and planning practice – BUT some farmers do!!'
- The Central Govt. could do by paying the impacted farmers with 'disaster crop compensation' (with minimal money cannot off-set the loss)



Challenges and Opportunities

- Review and explore adaptation strategy integrating into the existing National and Provincial Governments Water Resource Development Plan (Top-Down Sectoral Plan)
- Explore opportunities for integrating adaptation activities into Annual and 3-Year Provincial and Local Government Development Plans
- Up-scaling the community adaptation success actions available for the vulnerable groups
- Capacity building: CC Adaptation strategy and actions
 - The government officers
 - Small-scale farm holders
 - Establish the farmer's adaptation learning center



Challenges and Opportunities (cont.)

- Low-cost investment options supported by Provincial and Local Govts.
 - Solar, wind power to pump up waters to farmland
 - Local made weir, pond
 - Local crop seed bank/wholesaler & retailer
 - Local made fertilizer and pesticide
 - Mixed use of surface and underground water sources
- Conduct more R&D on adaptation policy-planning-practice (by MRC, SEI, SIDA, Mekong Academia etc)
 - Make generic guidance of adaptation policy and planning strategy for use by all government levels.
 - Support participatory action research on adaptation learning and practices between farmer groups and Govt. personnel
 - Innovate GIS and climate early warning system available for use by the Local Govt.



Special Thanks:

- Mekong River Commission
- Thailand National Mekong Committee
- Department of Water Resources
- Khon Kaen University
- Rajamongkala University of Technology Khon Kaen Campus
- Water Resource Regional Office 4
- 5-T MRC River Basin Committee
- The Chi River Basin Committee
- Sai Na Wang Sub-District Administrative Organization Kalasin Province
- Wang Luang Sub-District Municipality Roi-Et Province



Thank you for YOUR attention

