

# Mekong Climate Change and Adaptation Initiative and the Mekong River Commission

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### Tho City, Viet Nam, 12-13 November 2009

# The real threat: climate change impacts in Lower Mekong Basin

- Modifications to weather patterns in the LMB e.g. temperature, rainfall and wind;
- More intensive occurrence of existing challenges: changes in both intensity, duration and frequency of extreme events.
   Example: More frequent flooding, longer periods of drought, water shortages and increased salinity intrusion in the Delta;







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# The real threat: climate change impacts in Lower Mekong Basin

- This will affect natural ecosystems, all economic sectors,
   e.g. agriculture and food production, threaten food security in context of increasing food demand of growing populations.
- This will affect people livelihoods especially the poor people and communities living along the Mekong, who strongly depend on its water and related resources

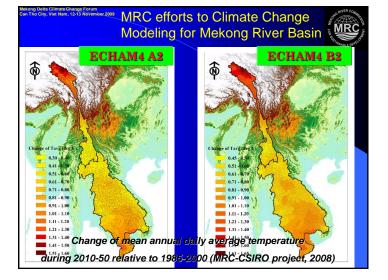


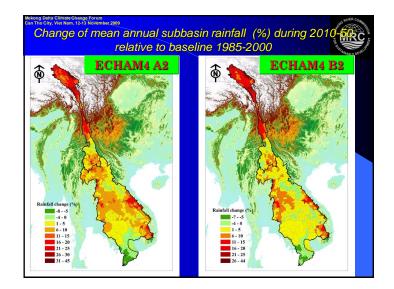


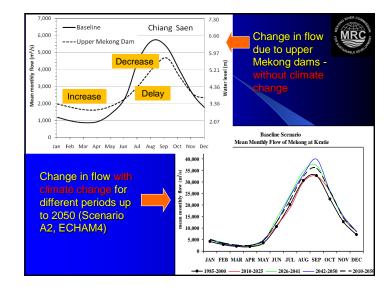
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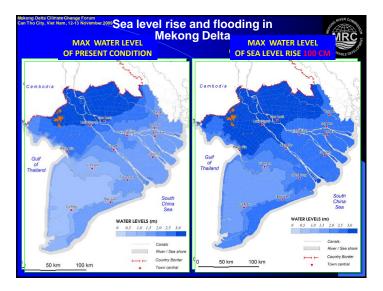
# Future climate change scenarios

- Basin wide temperature increase of 0.79°C, with greater increases in the northern part.
- Average annual precipitation increase of 20 cm, (equivalent to 15.3%) predominantly in wet season.
- Increase in total annual runoff of 21%, but strong water stress during dry season remains in some areas such as North-Eastern Thailand and Tonle Sap.
- Increase in dry season precipitation in northern part and a decrease in dry season precipitation in southern part of the basin.
- Increase in flooding in all parts of the basin, with the greatest impact in downstream part of the Mekong mainstream.









## What is Mekong Climate Change and Adaptation Initiative?



- A collaborative regional initiative of Lower Mekong Basin countries aiming to support the countries in adapting to the impacts and new challenges of climate change through improved planning, implementation and learning
- Where:
  - Lower Mekong Basin 4 Member Countries
  - Considering Upper Mekong influence
- **Duration and cyclical:** 
  - Long duration (eg 15 years in 5 year cycles)
  - Program approach
  - Phased to match the MRC and member states five years planning cycles

## Mekong Climate Change and Adaptation Initiative (CCAI)



## **Objective:**

Climate change adaptation planning and implementation is guided by improved strategies and plans at various levels and in priority locations throughout the Lower Mekong Basin

## Scope:

A basin wide integrated initiative consistent with IWRM approach and the MRC 1995 Agreement, focusing on climate change impact and vulnerability assessment; adaptation planning and implementation within the Lower Mekong Basin.

## Outcome:

Contribution to achieving the MDGs, poverty reduction and improved food security.



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## Mekong CCAI implementation period

- CCAI is a long-term sustainable initiative going through at least three 5 year phases
- CCAI is linked to the MRC Strategic Planning cycle (the current SP is 2006-2010).
  - 1. 2009-2010 = Intermediate phase, focusing on:
  - Institutional and management arrangements; Initial priority activities;
  - Identify pilots, define and implement demonstration activities.
  - Development and improvement of tools for assessment;
  - Establish monitoring and evaluation system linked to MRC M&E system;
  - Establish and strengthen national and regional partnerships;
  - 2. SP 2011-2015 = Phase 1
  - 3. SP 2016-2020 = Phase 2
  - 4. SP 2021-2025 = Phase 3

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## Mekong CCAI key features: Adaptation implementation and practices



- Local demonstration activities, which may focus on some of the following issues:
- Water availability and quality
- Increased risk of extreme events: stroms, flooding and drought
- Threats or losses of local ecosystem and biodiversity
- Disruption to settlement patterns/ Climate migrants
- Major disruption of local economies and livelihood especially of the poor and vulnerable groups
- Basin wide pilots e.g. on transboundary concerns or sectoral issues (next)

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## The CCAI Outcomes & Outputs



## Outcome 1:

Adaptation planning and implementation is piloted & demonstrated throughout the region drawing lessons learned from existing practices and demonstration with feed back to improve performance and influence strategies and plans

### **Example of Outputs:**

1.2: Local demonstration activities and projects in adaptation are established and working

 1.3: Basin-wide sector and trans-boundary adaptation plans/guides are prepared and piloted building on existing activities where feasible

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## **Basin wide pilots**

### Studies on transboundary such as:

- · Livelihood for vulnerable groups/ Gender,
- Natural systems (e.g. wetlands), / Biodiversity and protected areas,
- Flood and drought / Water quality, etc.

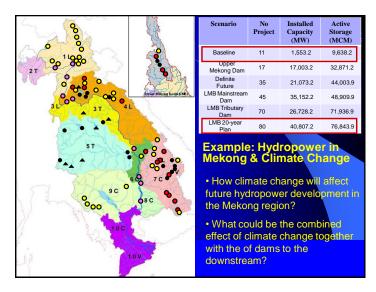
### Basin-wide assessments:

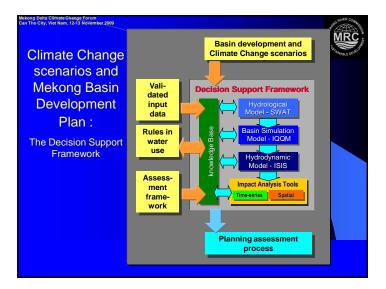
- Climate modeling and scenario building,
- Hydrological modeling (e.g. basin and sub-basin water balance and hydrodynamics), sediment transport

Sector assessments: guidelines for MRC sectors and integrated assessment between sectors e.g.

- Agriculture and irrigation
- Fisheries
- Hydropower,
- Forestry and watershed management,
- Navigation

MRC





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## The CCAI Outcomes & Outputs



Improved capacity to manage and adapt at different levels in the Mekong including use of tools for different adaptation planning stages and methods

## **Example of Outputs:**

- 2.1: Institutional capacity strengthened in policy making and planning for climate change adaptation in the LMB Countries

 - 2.2: Tools for adaptation planning and implementation are developed, documented and capacities built in their application

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## The CCAI Outcomes & Outputs



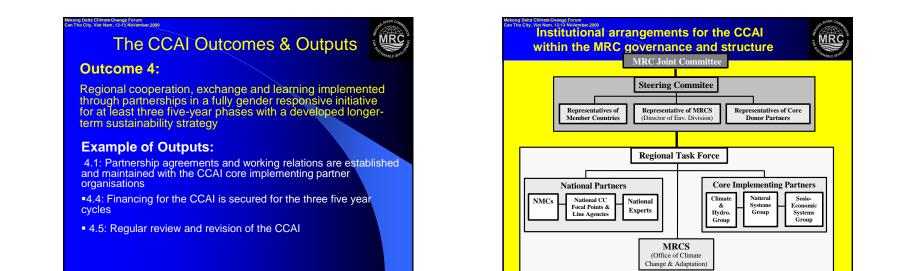
## Outcome 3:

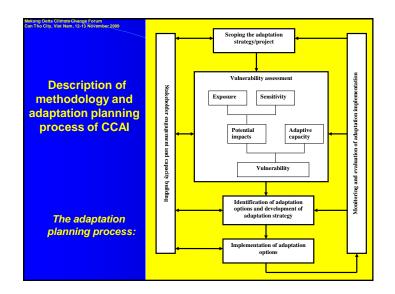
Strategies and plans for adaptation at various levels are in place and integrated with appropriate development plans, with implementation monitored and reported on a regular basis

### **Example of Outputs:**

3.1: Policy frameworks to facilitate and guide adaptation are in place

3.2: A system for monitoring and reporting on the status of climate change and adaptation in the Mekong region is implemented









# Key on-going CCAI activities supporting adaptation in Mekong Delta Member Countries are selecting demonstration sites: For Vietnam, Kien Giang province in the Mekong delta was selected by the national partners Stakeholder engagement and communication strategy of CCAI

- will be established at the demonstration sites in Kien Giang
- The Mekong CCAI in general and its pilots must support and closely linked with the National Target Program for Climate Change (The NTP) and related local policies and actions
- 2) The lessons learned from adaptation planning and implementation at CCAI pilot site in Kien Giang province can be up-scaled and replicated for other Delta areas and in the region



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# Key on-going CCAI activities supporting

- 3) Partnership and collaboration with core implementing partners working in Mekong Delta such as ICEM, CARE, SEA START, WWF, IUCN etc. will be strengthened
- Gathering regional and national experts to a make a Mekong roster of experts – The Mekong Panel of Climate Change (MPCC).
- 5) Establish the Mekong CCAI knowledge hub and database for the Lower Mekong Basin and specifically, for the Mekong Delta

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## Mekong CCAI and Mekong Delta: A need for regional coordination and collaboration



- Bridging researchers / scientists and scientific studies to the policy makers and the public through training, awareness rising and capacity building for policy makers, planner, national experts and the public
- 2) Opportunity to understand climate change impacts and vulnerability of Mekong Delta through the whole Mekong river basin perspectives, e.g potential transboundary climate change impacts are able to be identified by basin-wide pilots.



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## Mekong CCAI and Mekong Delta: A need for regional coordination and collaboration



- 3) Regional collaboration and building partnership; extend the network and sharing experiences, data and information
- 4) Sharing lesson learned from upstream demonstration adaptation activities in Lower Mekong with Mekong Delta in similar sustainable development context.
- 5) Recognizing Mekong Delta as the one of the most vulnerable areas downstream in Mekong river basin in a regional planning context.