Water for Food Security in a Changing Climate in the Greater Mekong Sub-region (GMS)

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- Scope
- Situation and outlook of water for food security in the GMS
- Needs and gaps for enhancing water for food security
- Recommended priority actions on a regional basis
- Discussion questions

Source: Thanh Nien News & Viet Nam Net
Scope

- For the consultation on GMS Sustainable Agriculture and Food Security Program
  - Focus on water for agricultural production
  - Describe status, outlook, needs and gaps
  - Recommend regional priority actions for consideration
Status and outlook of water for food security

- Food security in the GMS
- Agriculture in the GMS
- Water security for agriculture in the GMS
Food security in GMS

- Malnutrition decreases
- Food-security concerns for rural poor remains
- Food demand is increasing with
  - Population growth
  - Change of diets
Agriculture in GMS

- Back-bone of GMS countries’ economy
  - Cambodia: ~50% GDP, ~90% employment
  - Lao PDR: ~42% GDP, ~67% employment
- Food security for 340 millions population
- Livelihoods for 200 millions small-holder farmers
- Food for the world through trade
Water use for agriculture

- Agriculture is largest water user
- Use efficiency not very high
- Demand is rising to match increases in agricultural production
Water availability for agriculture

Quantity:
- Abundance but spatio-temporally unequal distributed: flood and drought
- Socio-economically water scarce

Quality:
- Generally still good
- Some pollution hot spots in deltas and close to cities
Change in the next decades that will affect water

Water infrastructures

Land use change

Climate change and adaptation
Implications for water, food and energy

- Climate change
- Water infrastructures
- Land use

Changes in
- Rainfall
- Water balance
- Flow
- Sediment

Impacts on hydropower yields & operation

Impacts on agriculture, fisheries, ecosystems
Countries’ agricultural water strategies

- Expansion of irrigated areas
  - Ex: LMB 4-5 Mha 2016 → 7 Mha 2030
- Rehabilitation and modernization of old systems
- Continue flood, drought, and salinity control infrastructures
- Improve use efficiency
You have a problem, the climate is changing!“

Source: presentation of Dr. Jaap Kwadijk, Director of Science, Deltares, Delft, the Netherlands, 30 November 2012
"How much....?"

Source: presentation of Dr. Jaap Kwadijk, Director of Science, Deltares, Delft, the Netherlands, 30 November 2012
Needs and gaps

- Water availability
- Data availability
- Planning capacity
  - Adaptive management

Knowledge

Successes - failures
Cost - benefits

Data

Data availability
Data quality
Data sharing

Institutional

Transboundary
Multi-sectoral

Finance
Priority factors for regional activities

1. Support to enhance capacity of the countries in implementing national strategies
2. Address the needs and gaps
3. Focus on aspects that need regional cooperation
4. Create synergies with other initiatives of the GMS Program and other organizations
### Recommended activities on a regional basis

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<th>Knowledge</th>
<th>Information and data services</th>
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<td>Assessment of water availability</td>
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<td>Support on climate proofing of infrastructure intervention</td>
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Discussion questions

- Key challenges for your country/organization?
- Current efforts of your country/organization?
- Any best practices that could be replicated in the GMS?
- Key priorities for action (3-4)?
- Major advantages or disadvantages in adopting a regional approach?
- What can be done by ADB and other development partners?
Thank you

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