

The MRC Regional Stakeholder Forum

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Vientiane, Lao PDR



Parallel discussion 4A1 - Results of Irrigation and Agriculture Land Use Thematic Areas

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4. Key conclusions

- *Hydropower development could reduce the risk of floods and droughts and contribute to enhanced agricultural productivity.*
- *Vietnam has higher irrigation sustainability than the other member countries. But salinity intrusion expands due to decreased Mekong flows and sea level rise, reducing rice production.*
- *Results show that drier climate change would reduce rice production in Cambodia, Lao PDR, and Thailand. Increased climate variability and sea level rise would reduce rice production in Vietnam.*
- *The agricultural sector is likely to cause slightly poorer ecosystem conditions. However, the cumulative effects of herbicides and pesticides on aquatic ecosystems need to be analysed.*

4. Key conclusions

- *The expansion of agricultural areas in combination with increased irrigation capacity would increase inter-annual reliability of agricultural production.*
- *For more benefit in terms of economic values, it is recommended to put investment in the increase and improve existing agriculture lands capacity and irrigation facilities, rehabilitation rather than expansion of irrigation and agricultural areas.*

Key comments from group discussion

1. Sediment load impact on rice production: What is the effect of development on sediment?
→ sediment load in M2 scenario is reduced by 1/3 and reduced by 1/30 in the M3, compare to baseline.
2. How can hydropower development increase rice production? → HP reduces damage to rice production by preventing flood
3. Comment made that impact of land use change on water quality should be included (currently only sediment), no fertilizer herbicide, pesticide impact included in the scope of Study
4. Comment made that in the future, irrigated areas in Vietnam should be reduced dramatically due to aquaculture conversion, and that M3 is over-estimated irrigation areas
→ the current M3 is based on data and development plan provided by countries
5. Comment on whether decrease Mekong flows in wet season could increase the salinity intrusion? And whether increase Mekong flows in dry season could decrease the salinity intrusion?
6. Soil improvement (physical and nutrient/organic fertilization) should be included in the conclusion, to avoid the climate change impact
7. How do we estimate natural capital value?