

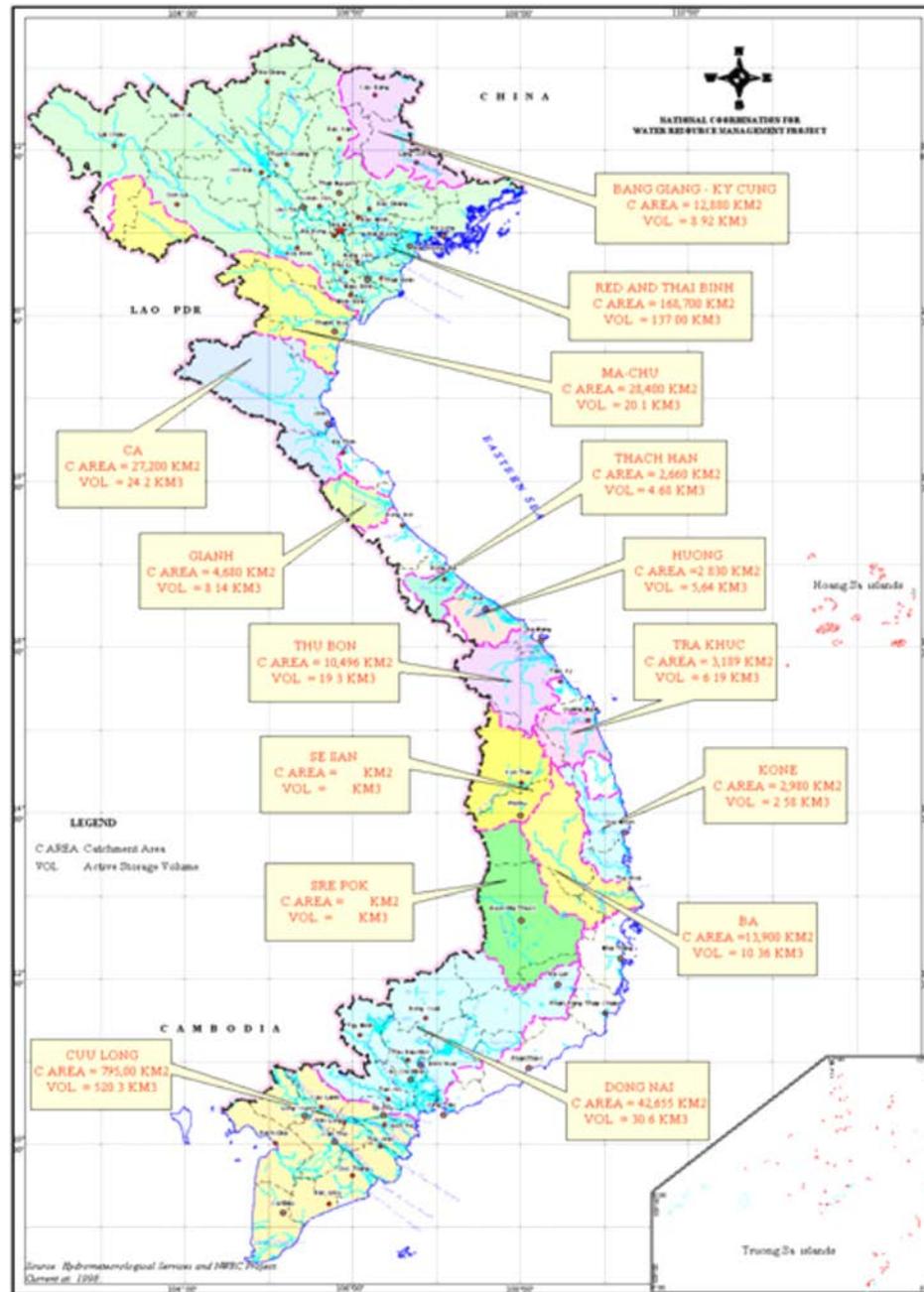
International Conference "Transboundary Water Resources and Related Resources Cooperation"
2 March 2018, Chiang Rai, Thailand



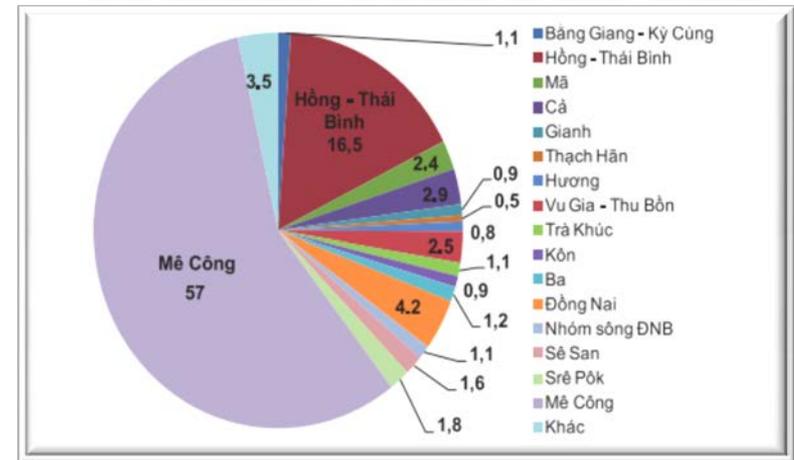
Transboundary Water Resources Cooperation of Viet Nam



MAJOR RIVER BASINS



Water Resources



Surface water:

Total annual volume of surface water availability in our country's territory is around $830 \times 10^9 \text{ m}^3$. Of this, $310\text{-}315 \times 10^9 \text{ m}^3$ per year is generated within the territory of Viet Nam, and accounts for 37%. More than 60% of Vietnam's surface water is generated outside the country (>70% basin areas); 8 tb rivers > 10.000 km.

- About 60% in the Cuu Long (Mekong Delta) river basin

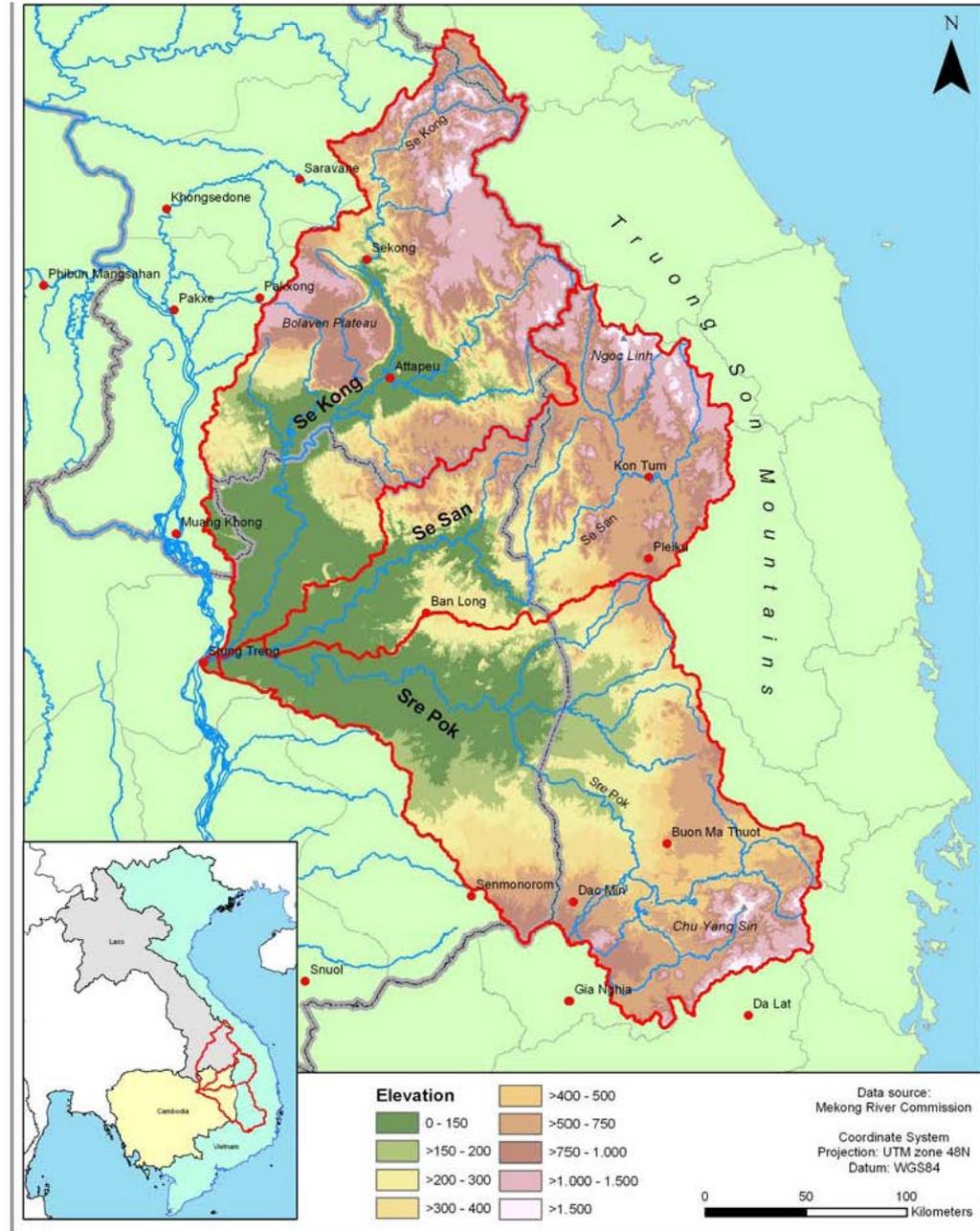
- More than 16% in the Red- Thai Binh basin

Transboundary water issues in Mekong river in Viet Nam and bilateral cooperation with Cambodia



Background - 2S

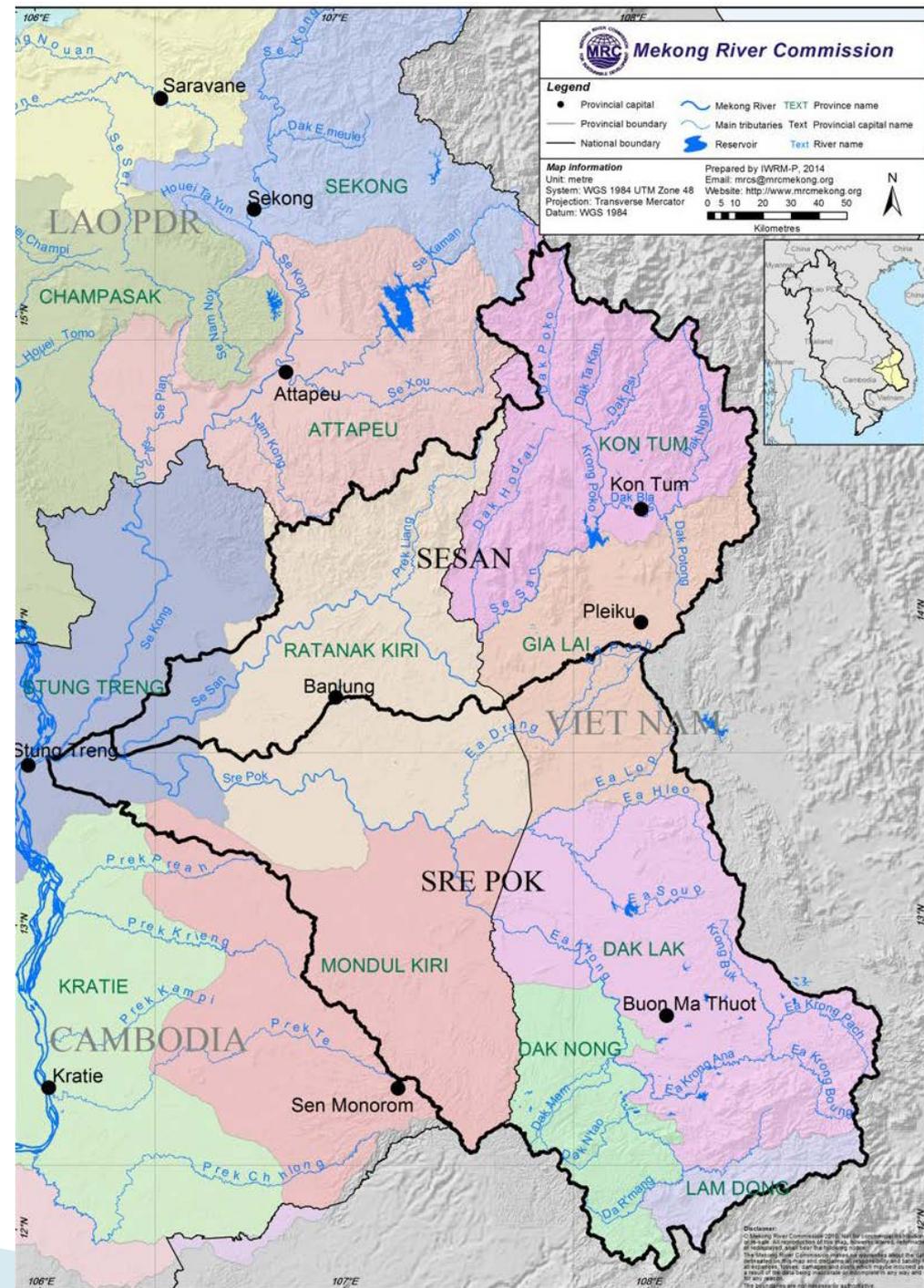
- ▶ The sub-basins of the Sesan, Srepok and Sekong rivers (3S) basin, which takes a **significant role in the LMB** (social, economic, cultural and environmental factors). The Sesan and Srepok catchment area comprises the two countries of Cambodia and Viet Nam
- ▶ Catchment area: 49,830 km² ; Respective discharge contribution of about 20% to the Mekong's flow.
- ▶ **Population: 190,000 living in Cambodia; 2.3 million people inhabit the Viet Nam territory**



Background – 2S

Integrated Water Resources Management issues:

- Flood, drought, fisheries and sediment management.
- Infrastructure and future developments: hydropower, mining, agricultural irrigation
- **Key water management issues: rivers' flow regimes, sediment and nutrient transport, river ecology, ground water exploitation pressure, fisheries and livelihoods**



Location of Se San - Srepok basin

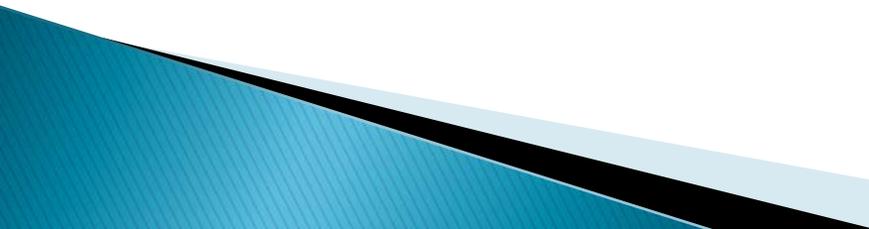
- Transboundary issues:
- ▶ Water release accident in 2000 (Yali dam)
 - ▶ Great efforts of Cambodia and Viet Nam to resolve transboundary issues and mitigate impacts



Solutions

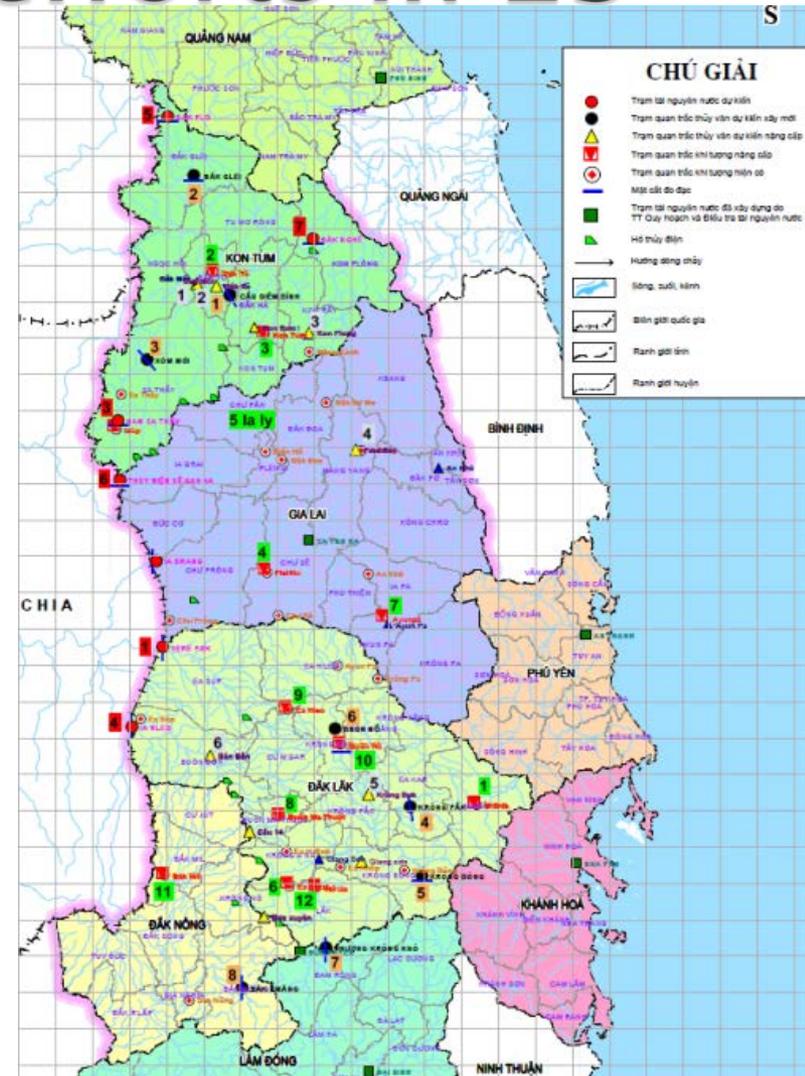
- ▶ Dialogue set up: In Viet Nam, the Advisory Committee of Vietnam for the Operation of Hydropower Scheme of Sesan River was established while the Cambodia counterpart was the Cambodian Committee for the Management of the Sesan Water Utilization. MRC Secretariat attended these bilateral meetings as observer.
 - ▶ Agreed on set of mitigation measures.
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Agreed Mitigation measures for 2S

- ▶ Smooth water release from hydropower cascades in Viet Nam, maintaining minimum env flows to Cambodia parts.
 - ▶ Regular sharing of info on water release from hydropower cascades to Cambodian side.
 - ▶ Reducing flood, minimizing flood damages to downstream and avoiding sudden flow change at Cambodia–Viet Nam border areas.
 - ▶ Structure and non–structure measures for avoiding sudden change in water release to border areas due to hydropower operation: construction of re–regulation reservoir (Sesan4A) and smooth operation of Srepok 4.
 - ▶ Conducting transboundary EIAs of the hydropower cascades in Sesan and Srepok basins.
 - ▶ Maintaining regular communication channels and dialogues for resolving concerns of two sides.
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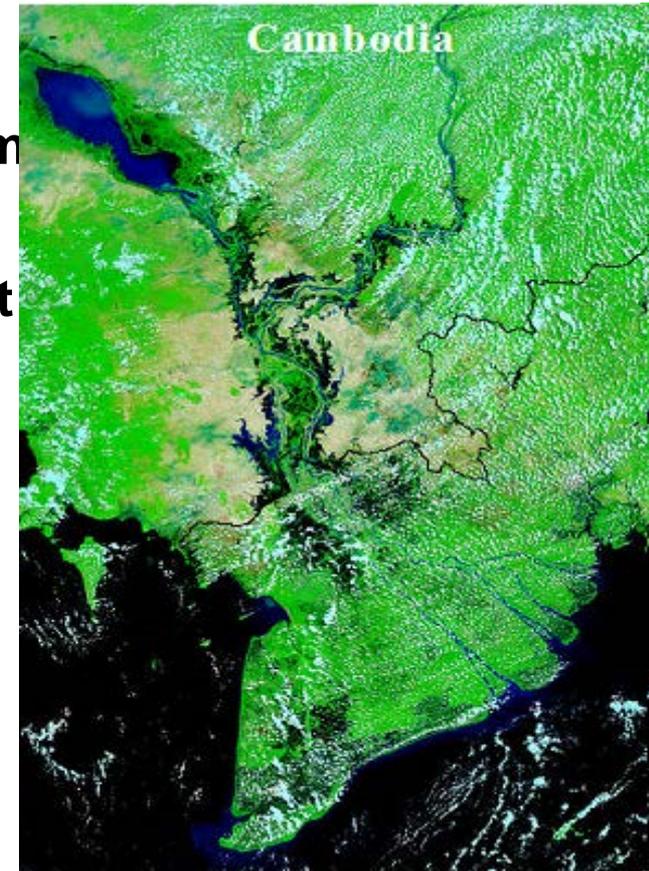
Recent continued efforts in 2S

- ▶ Improvement of transboundary water resources monitoring network (4 new tb WR monitoring stations in 2018).
- ▶ Establishment of RBOs of 2 sides including the cooperation mechanism of 2 sides.
- ▶ Proposing joint projects.
- ▶ Linked Decision Support Systems.

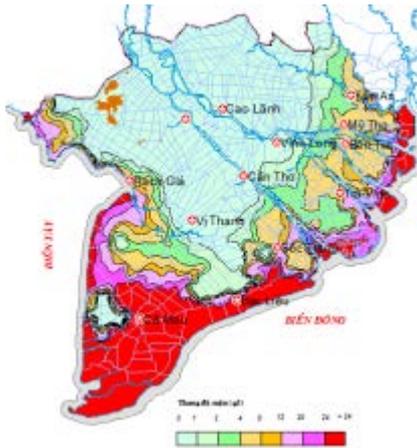


Background – Mekong delta

- ✓ **Gross Area:** 3.94 million ha.
- ✓ **Population:** 17.5 million people (2014)
- ✓ **Production:** Sharing over 53% rice production (90% rice export), 65% fishery production, 70% fruit production of Viet Nam
- ✓ > 90% flow coming from other countries; highly dependent on upstream development



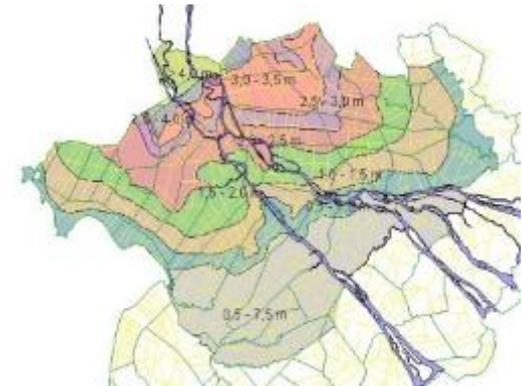
Background – Mekong delta



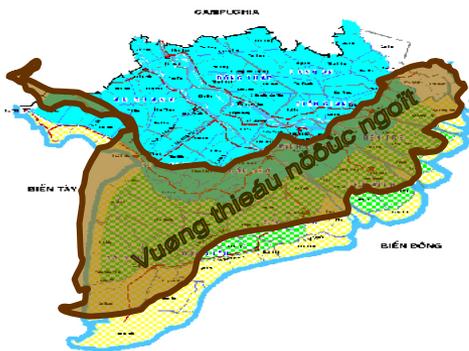
■ Salinity intrusion



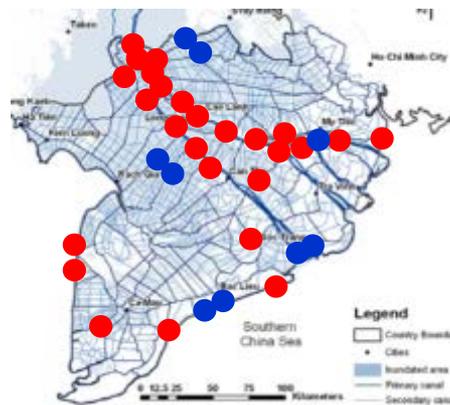
■ Acid sulphate soils



■ Flooding



■ Droughts & fresh water shortage



■ Erosion on rivers & canals



■ Forest fire and Water resources pollution



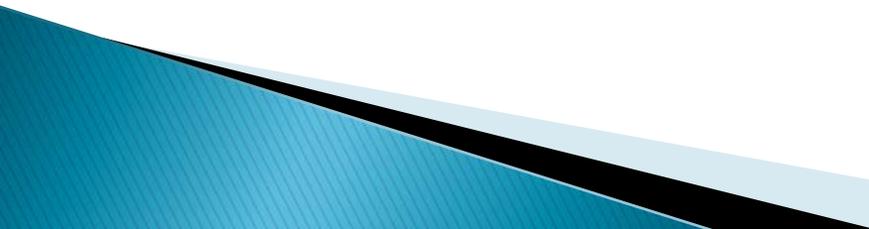
■ Sea level rise

Solutions for Water resources management

1. Cross-border cooperation
2. Integrated planning (update Delta Master Plan)
3. Strategies and measures to adapt to climate change and sea level rises
4. Measures for flood mitigation and management
5. Solutions for Erosion and Sedimentation Control
6. Environmental and ecological management
7. Strengthening institutional capacity



Joint transboundary issues

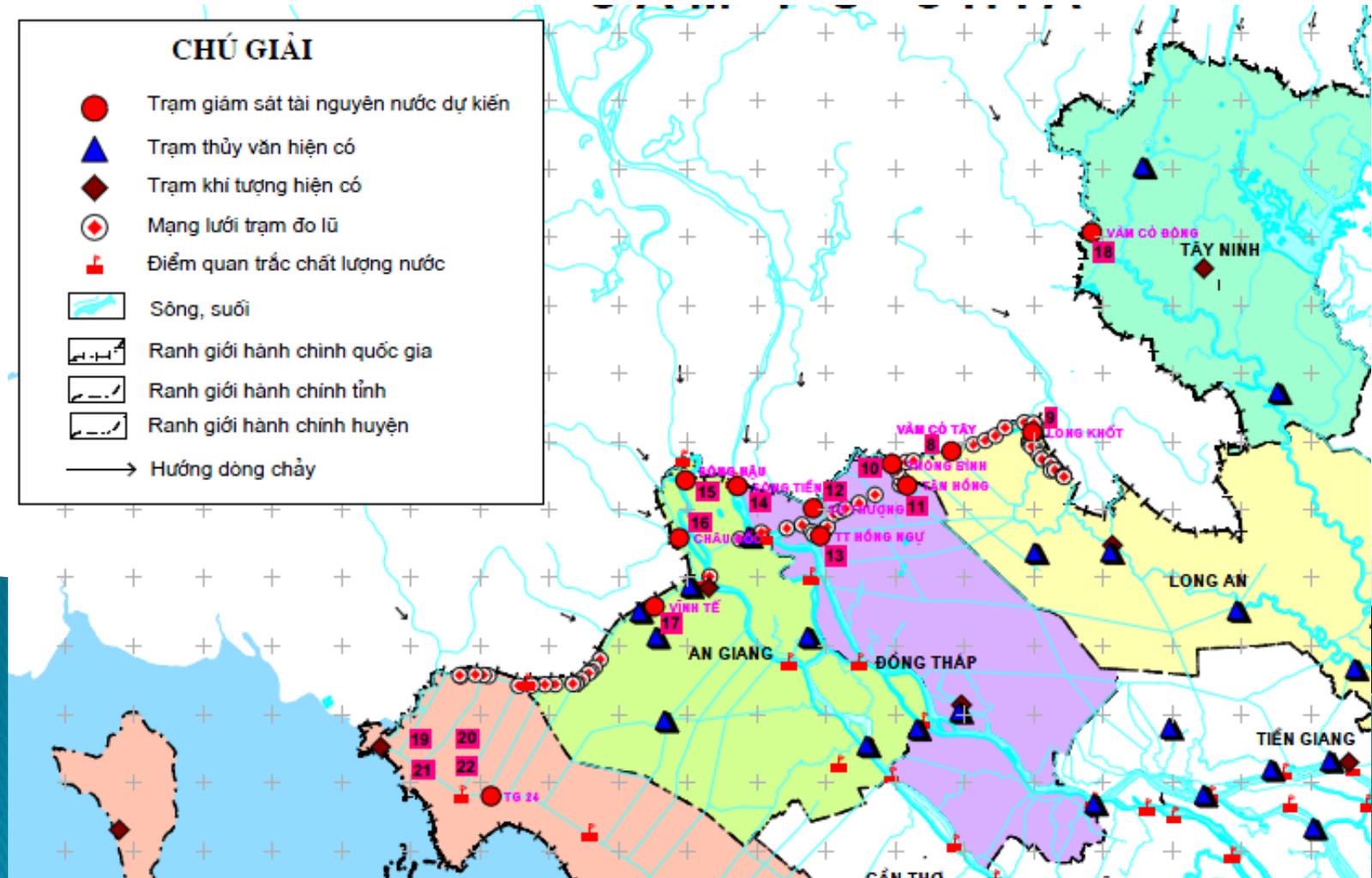
1. Shortage of water in border river.
 2. Inappropriate solution of infrastructure to cause inundation and bank erosion, instability and risks to safety for residential routes.
 3. Water pollution due to agriculture development, aquaculture, navigation, industry and urbanization etc.
 4. Change of flow and reduction of sediment and nutrient in mainstream and transboundary tributaries due to hydropower development, other development and and climate change.
 5. Lack of solution for joint integrated management.
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Recommendation on coordination mechanism for Mekong Delta

1. Working Group for drafting and negotiating for the procedures for water use of border rivers.
2. Working group for concrete technical aspects of planning, designing and operation of water infrastructure systems.
3. Bilateral provincial and ministerial cooperation.
4. Bilateral high level cooperation/Government.
5. Multilateral and regional cooperation (Triangle of Economic Cooperation...).
6. Strengthening cooperation between CNMC and VNMC (Memorandum of Understanding between VNMC and CNMC signed in October 2005).

Newly built water resources monitoring stations in border area (WB loan project)

□ *6 new stations in the Mekong Delta in 2018*



THANK YOU

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