

Sustainable framework for the Mekong Delta: a long term vision for integrated development

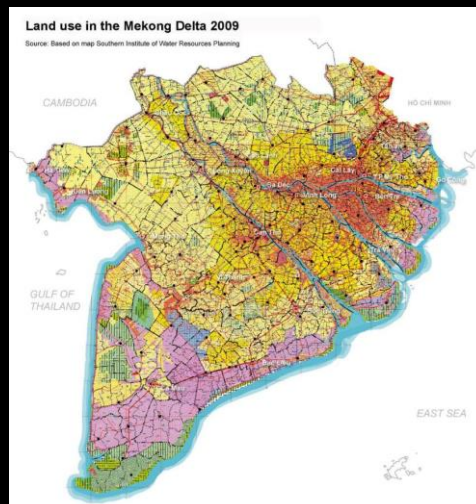


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Intensively used Delta

The Mekong Delta:

- Intensively used for agriculture
- Heavily invested with water infrastructure
- Exponential growth of rice
- Aquaculture
- Fruit
- Granary of Vietnam
- Food security
- Agro-based export



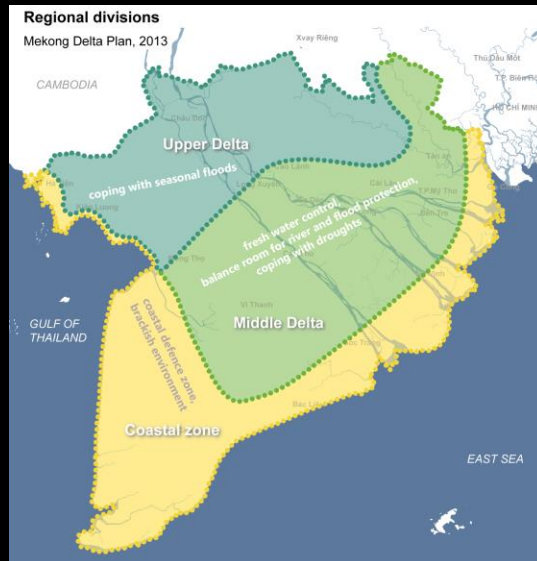
Climate Change Impacts

Climate change impacts are hydrologically specific & spatially bounded:

- Upper delta: increase in seasonal river floods → increased flood risks and need for water retention.
- Middle delta: decreasing dry season river flows leading to fresh water shortages.
- Coastal delta: increased salinity intrusion & brackish environment (decrease fresh water & sea level rise)

Adaptation needs are spatially (& temporally) bound, but hydrologically connected.

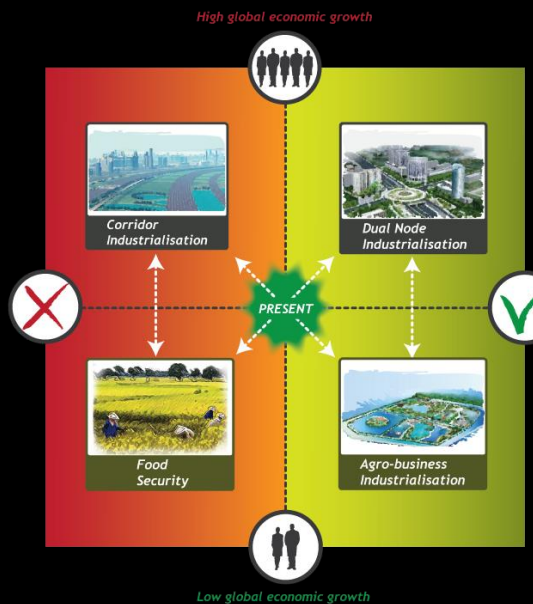
Need for spatial & integrated planning to optimize adaptation.



Socio-economic development options for the future

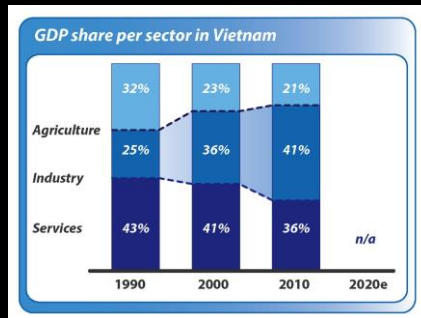
Framework for sustainable development (economic attractive & climate adaptive):

- Socio-economic development patterns
 - Determine land & water use requirements
 - Determine suitability / adaptability to hydrological climate change impacts
- Are dependent on economic structure (economic development choice) & economic conjuncture (high or low growth)
- As impacts of climate change are spatially bounded, but hydrologically connected:
 - Spatial planning for economic development matters (pre-requisite for highest adaptive economic development strategy)

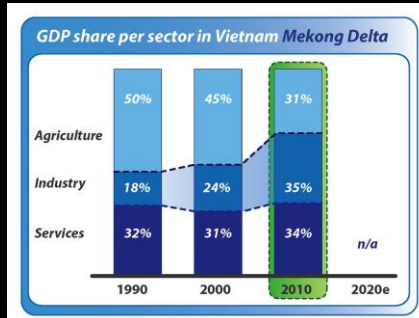


Economic Structure: Urban/Industrial v Rural/Agricultural

Vietnam
(transition to industry/services economy)

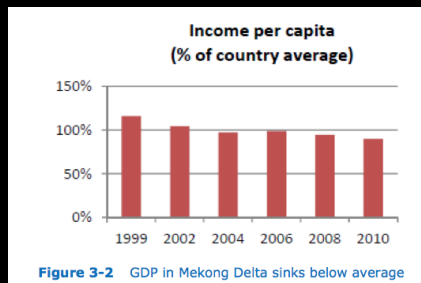


Mekong Delta
(unique resources base = unique economy)

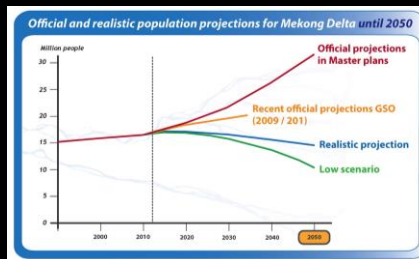


Future economy of the Delta

What wealth?



How populous? (migration)



Negative outlook: poor economic growth @ delta stimulates economic migration

Positive outlook: decreasing population provides scope for agricultural consolidation & modernization

Economic Development scenarios & climate adaptability in Upper Delta

Negative Adaptation

Positive Adaptation



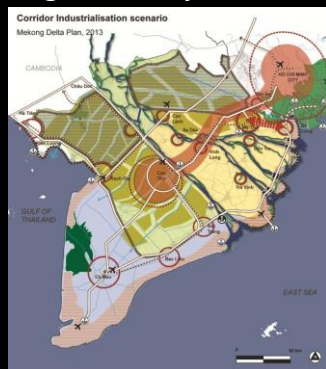
Adaptation Assessment:

Increase water retention in flood season
Invest in flood based agriculture activities
Flood protection & water for middle Delta

Economic Development scenarios & climate adaptability in Middle Delta

Negative Adaptation

Positive Adaptation



Adaptation assessment:
Loss of prime land & fruit
High flood protection risks & costs

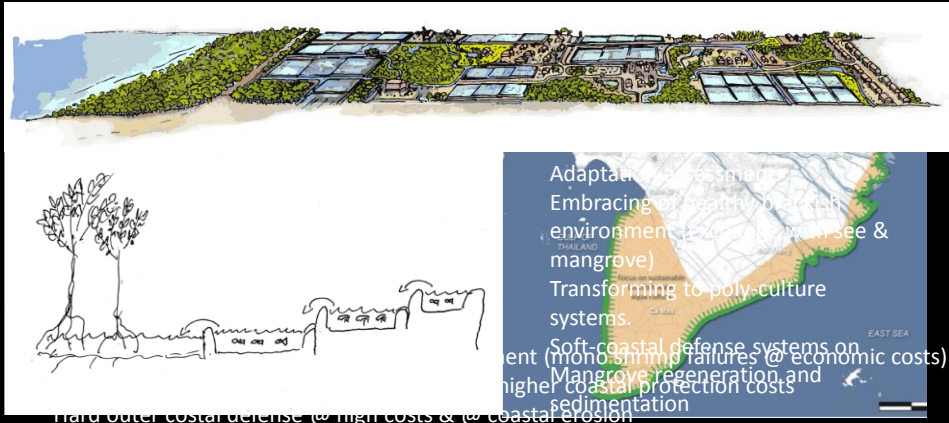


Adaptation assessment:
Conservation of prime land & fruit
Urban/industrial expansion in SAS-soils prone
to water shortage (flood risks low with no 3 rice)

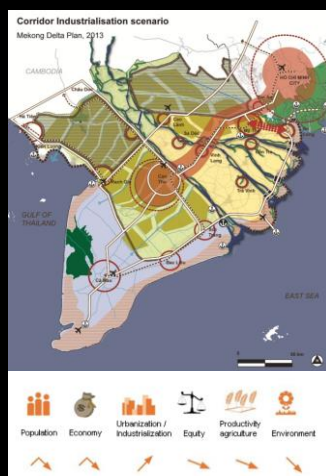
Economic Development scenarios & climate adaptability in Coastal Delta

Negative Adaptation

Positive Adaptation

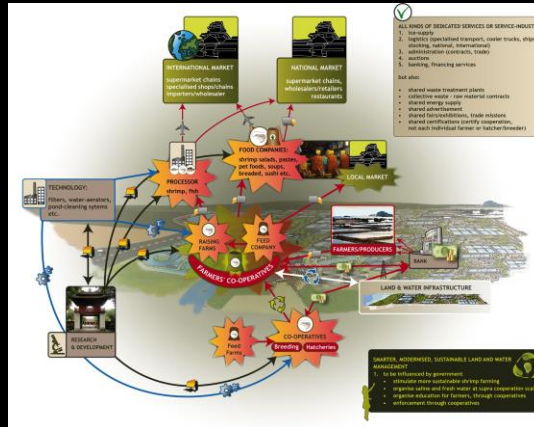


Valuing the options on multi-criteria

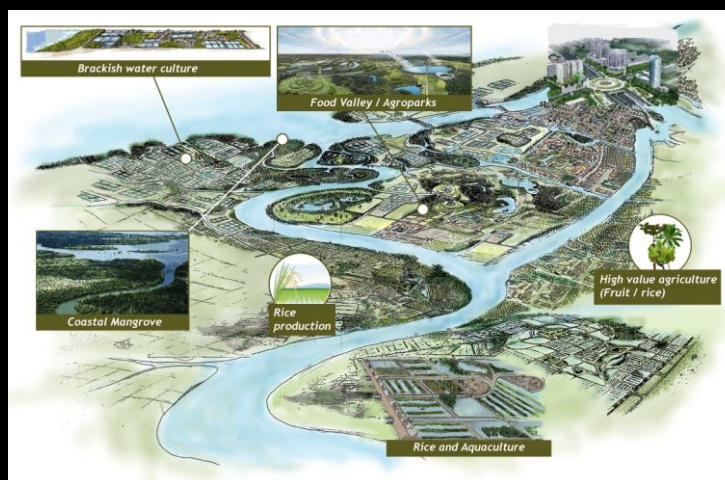


Adaptive economy : an integrated transformation for innovation

- Coordinated planning
 - Spatial
 - Sectoral
- Agricultural Value chain development
- Roads & infrastructure
- Rules & regulations
 - Cooperatives
 - Finance
 - Export
- Linking producers to markets
- Facilitation & investment in agro-business (linked to cooperives)
- Research & Development in innovations:
 - adaptive production systems
 - High value products & markets
 - Public & private
- Agro-business hubs:
 - Value chain specialization
 - Resource/product cycles
 - Infrastructure (hard & finance)



Agro-business as vision-framework: setting strategic choices & horizons for innovation



A strategy for Mekong Delta specific economic & adaotive development – building on today's achievements for tomorrows potential strengths