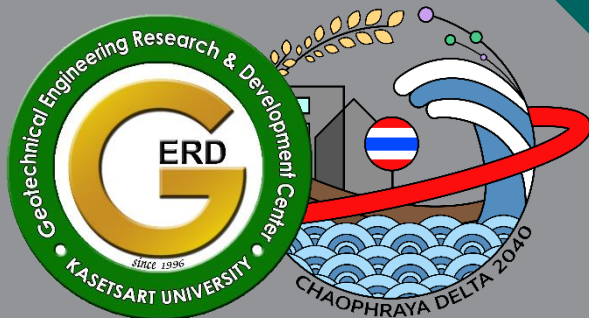




OPINIONS AND PERSPECTIVES CHAO PHRAYA DELTA'S 2040 DEVELOPMENT



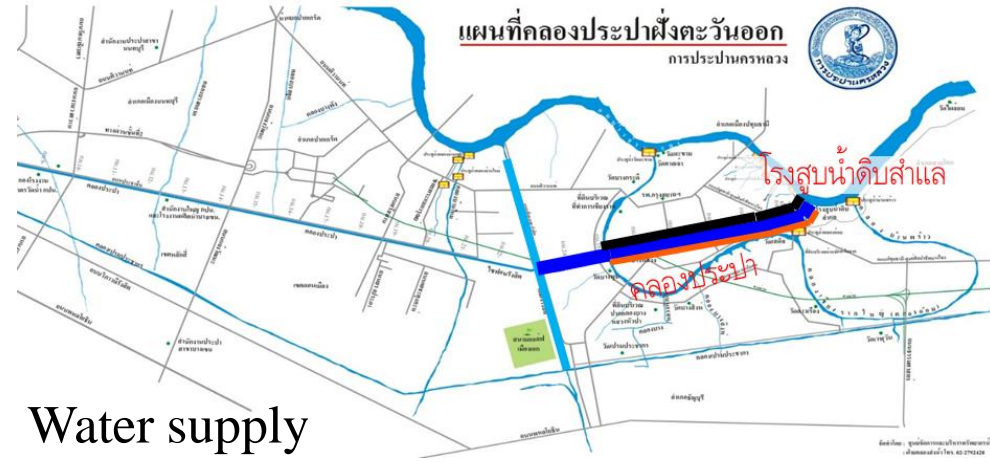
Suttisak Soralump and Thapthai Chaithong
Geotechnical engineering research and development
center, Kasetsart University

Issues in the Chao Phraya Delta



Flood

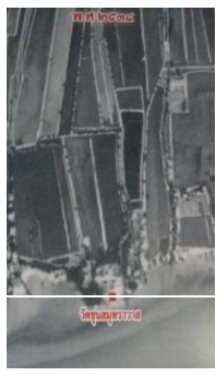
THAILAND FLOODS
www.thailandfloods.com/royalrattana
Mr. Pongkajon Phrasriwong



Water supply



1974



1992



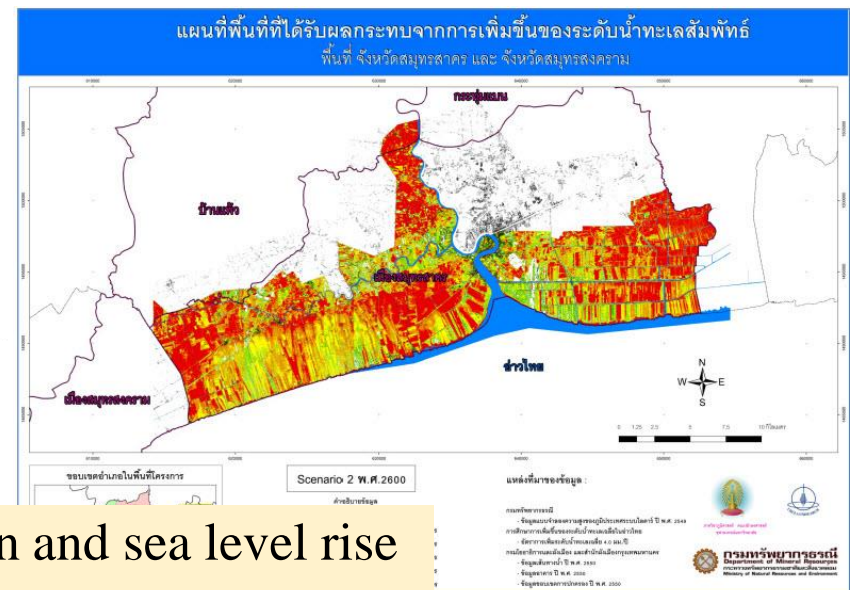
2009

ที่มา : ณะวัฒน์ 2552



2015

coastal erosion and sea level rise



Issues in the Chao Phraya Delta

SINKING BANGKOK

Bangkok is sinking and could be under water in less than 15 years

Rain

Should provide the groundwater needed

Currently, **Bangkok** is only **0.5-2 m** above the water

City sinking
1-2 cm
a year

Water level rising
4 mm
a year

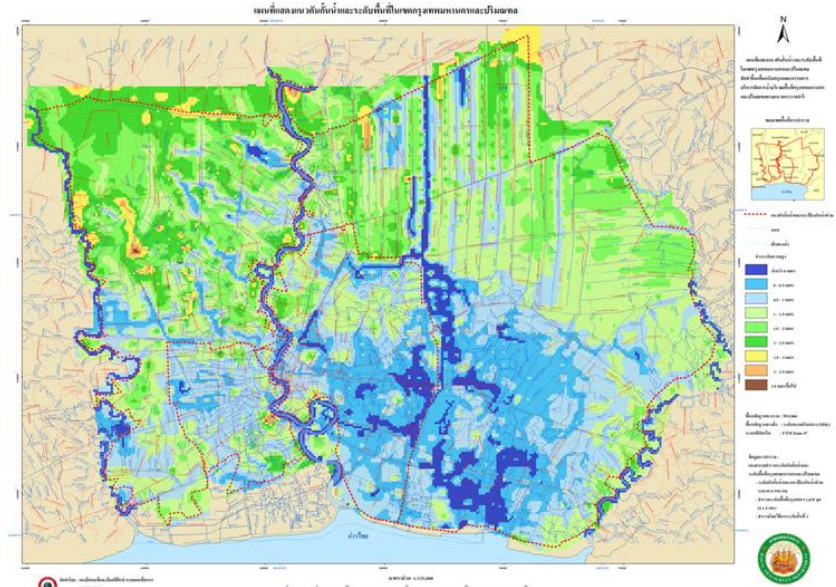
Clay

The clay on which the city sits needs to retain moisture, otherwise it dries out, becoming more susceptible to subsidence

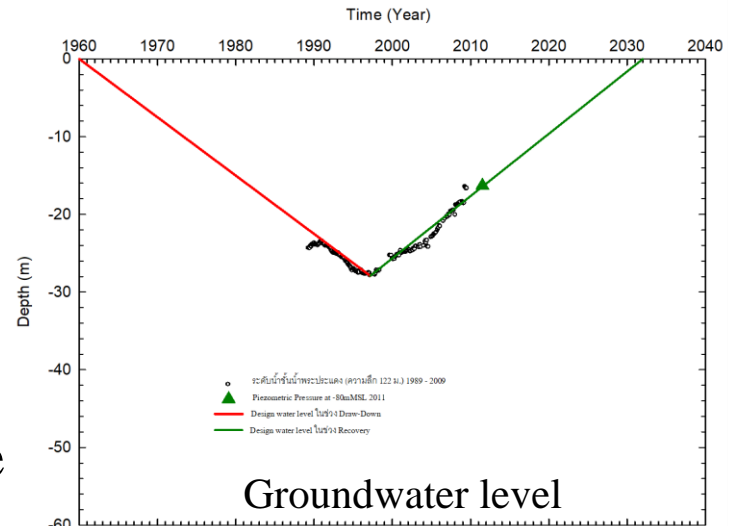
Concrete

Groundwater is needed to allow the clay to retain its supportive qualities, but Bangkok's heavily concreted urban sprawl prevents it from seeping through to the right areas

Graphic by Rafa Estrada

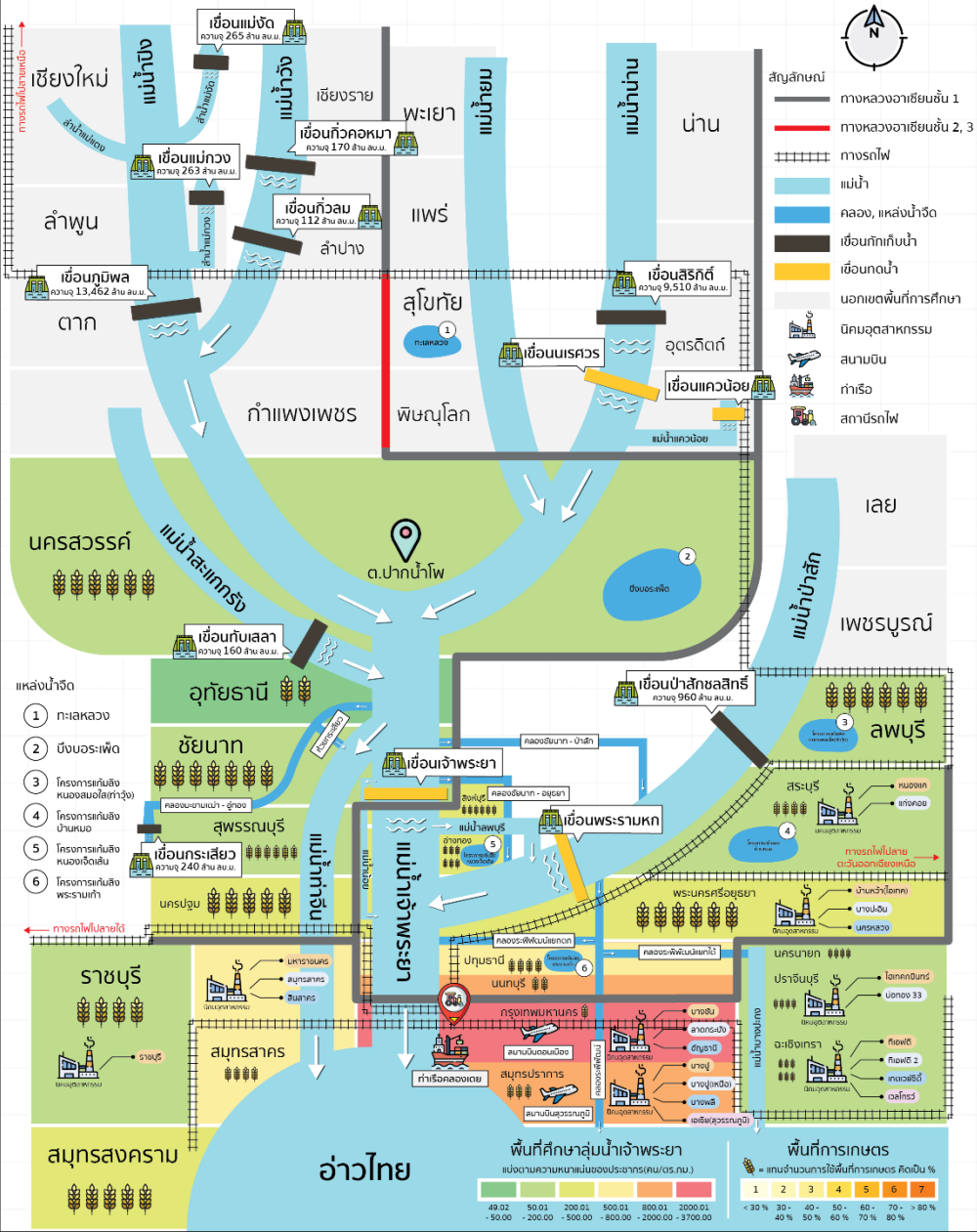


รูปที่ 9 แสดงความสูงต่ำของพื้นที่กรุงเทพมหานคร และปริมาณขาดโดยเทคนิคการประมาณค่า



Land subsidence and ground water issue

CHAOPRAYA DELTA



The Chao Phraya delta is in the central plain of Thailand, which is the most important region of the country. The Chao Phraya delta and is the centre of Thailand’s government, economy, culture, education, and transportation. There are 19 provinces in this study.

- Bangkok
- Nonthaburi
- Pathum Thani
- Nakhon Pathom
- Samut Prakan
- Samut Songkhram
- Ratchaburi
- Chachoengsao
- Saraburi
- Ayutthaya
- Chai Nat
- Sing Buri
- Nakhon Sawan
- Lop Buri
- Uthai Thani
- Suphan Buri
- Nakhon Nayok
- Ang Thong

Objective of Chao Phraya Delta Development 2040's :

- ❖ To create the neutrally academic platform for stakeholders in the Chao Phraya Delta.
- ❖ To find and share the key recommendations, limitations and developing points would be adopted and translated into an institution plans for developing the Chao Phraya Delta for next 20 years.
- ❖ To find the perspective of development in the Chao Phraya Delta for next 20 years.

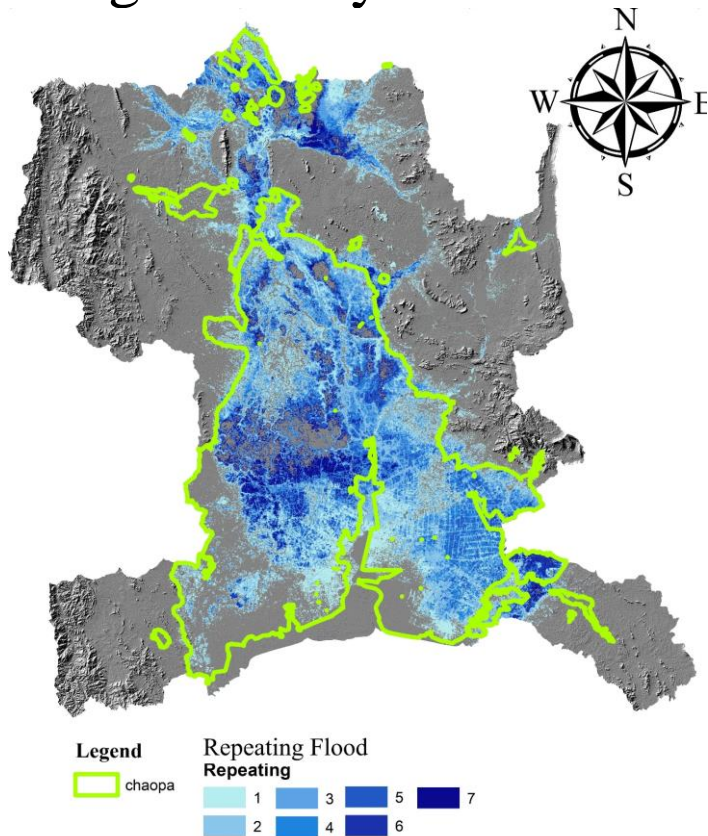


This study conducted in-depth interviews with 11 people who are in the academic field, industrial sector, and government sector; in addition, four sessions of group discussions were held.

According to the interviews and group discussions, the five main points for development can be summarised.

1. Floods
2. Flood walls
3. The multi-hazard model
4. The issue of trust between people and the government
5. The coherence of plans and policies

Floods are one of the significant natural hazards in the Chao Phraya delta where flows from *the north region*, *tidal intrusions*, and *urban flooding* are the most notable challenges for water disaster management during the rainy season.



<https://mgronline.com/onlinesection/detail/9640000110556>

Regarding issues across the administrative districts, experts have mentioned that the concept of *average happiness and suffering* in all areas may be the better solution to reduce conflict among people in the different administrative districts.

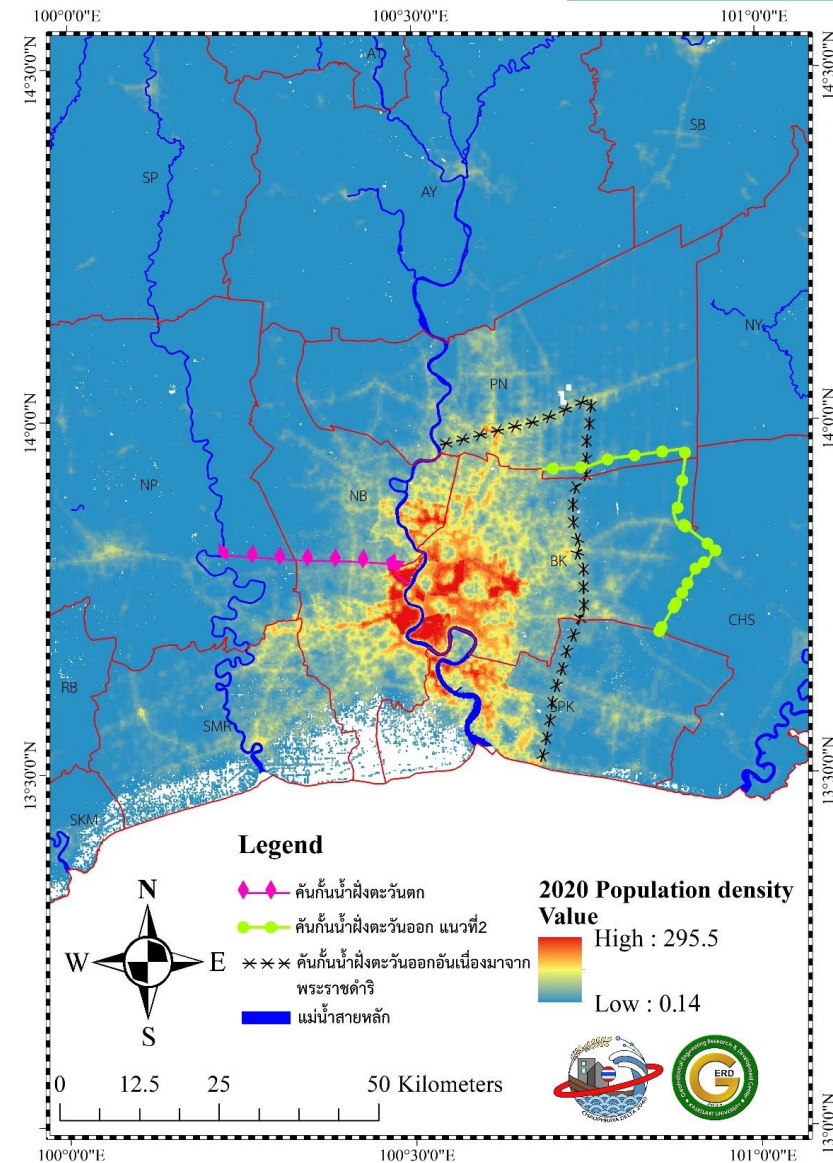


<https://mgronline.com/local/detail/9540000123677>

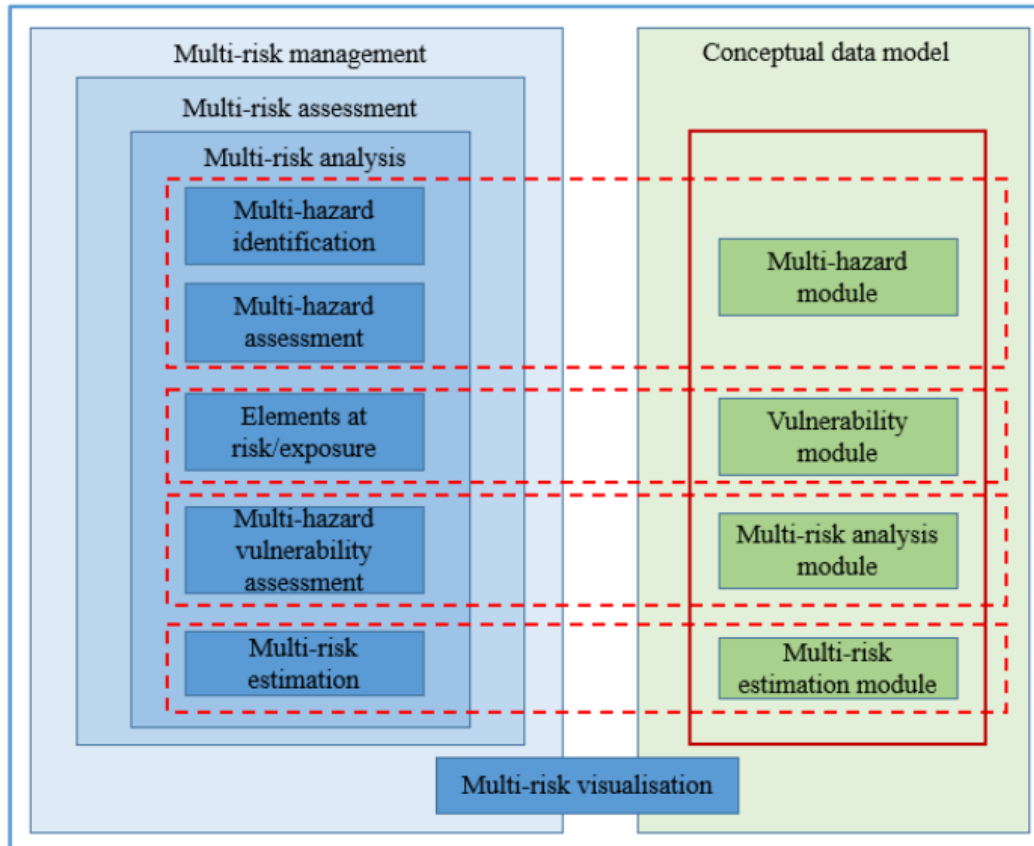
The flood walls in the Chao Phraya delta have been constructed by several agencies, such as the Bangkok Metropolitan Administration or Subdistrict Administrative Organisation.



<https://www.tnnthailand.com/news/local/94222/>



The multi-hazard model is, at present, the significant factor that is lacking in the infrastructure development in the country. The multi-hazard model is a powerful and effective tool in understanding possible scenarios and will lead to pre-disaster management actions



The issue of trust between people and the government is a main topic of concern in Thailand. Based on the group discussions, the people stated that the past development projects of the government sector have left the people of the area with a distrust of the government. People feel that the government sector does not act sincerely in public hearings.

The representative of the group discussions stated that *“We do not hinder development, but the government should be provide comprehensive information and sincerely listens to the people and finds solutions together in development”*.

The coherence of plans and policies should be considered in the present situation. Currently, the Royal Thai Government has enforced the National Strategy (2018–2037), which is the country’s first national long-term strategy, and its vision is to have “a developed country with security, prosperity and sustainability in accordance with the Sufficiency Economy Philosophy”. To achieve this vision, all the ministries have developed long-term strategic plans to serve the National Strategy (2018–2037), but these still lack connections and coherence within the same focus area.

Chao Phraya Delta 2040

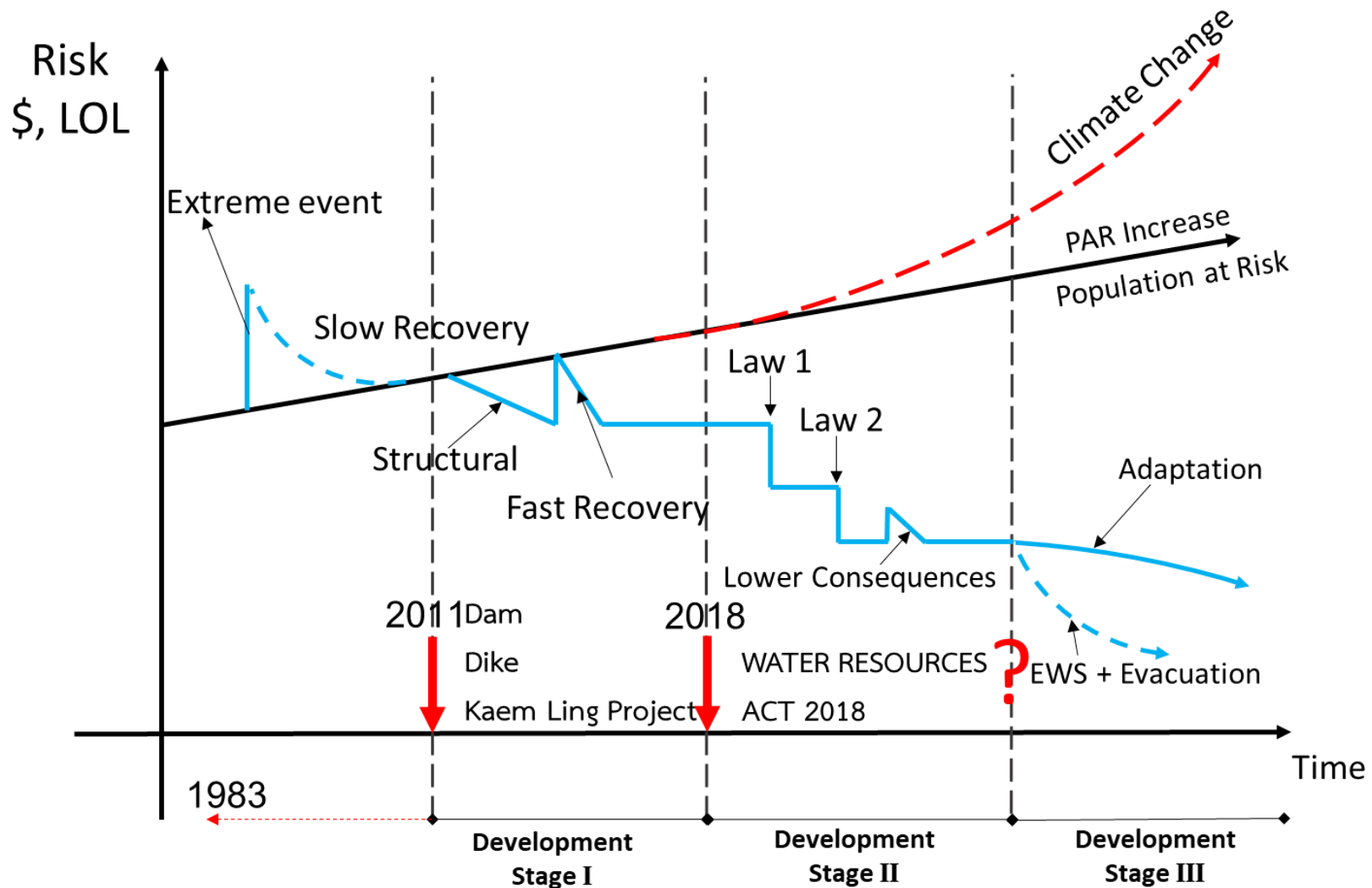
Delta of people

Vision: Social Equity & Prosperous Future & Resilient Delta

Challenges:

1. Water & Food Security under changing climate
2. Natural Disaster: Drought & Flood & Sea level rise & etc.
3. Lack of communication and Trust
4. Critical of Infrastructure and Disruption of technology
5. Lack of coherence of information and departments
6. Uncontrolled & Unplanned & Unbalanced development
7. Unpredictable disasters
8. Degradation of biodiversity & environmental pollution

CHAO PHRAYA DELTA'S 2040





Thank you very much

