Knowledge Synthesis as a Mechanism to Avoid Future Development Conflicts
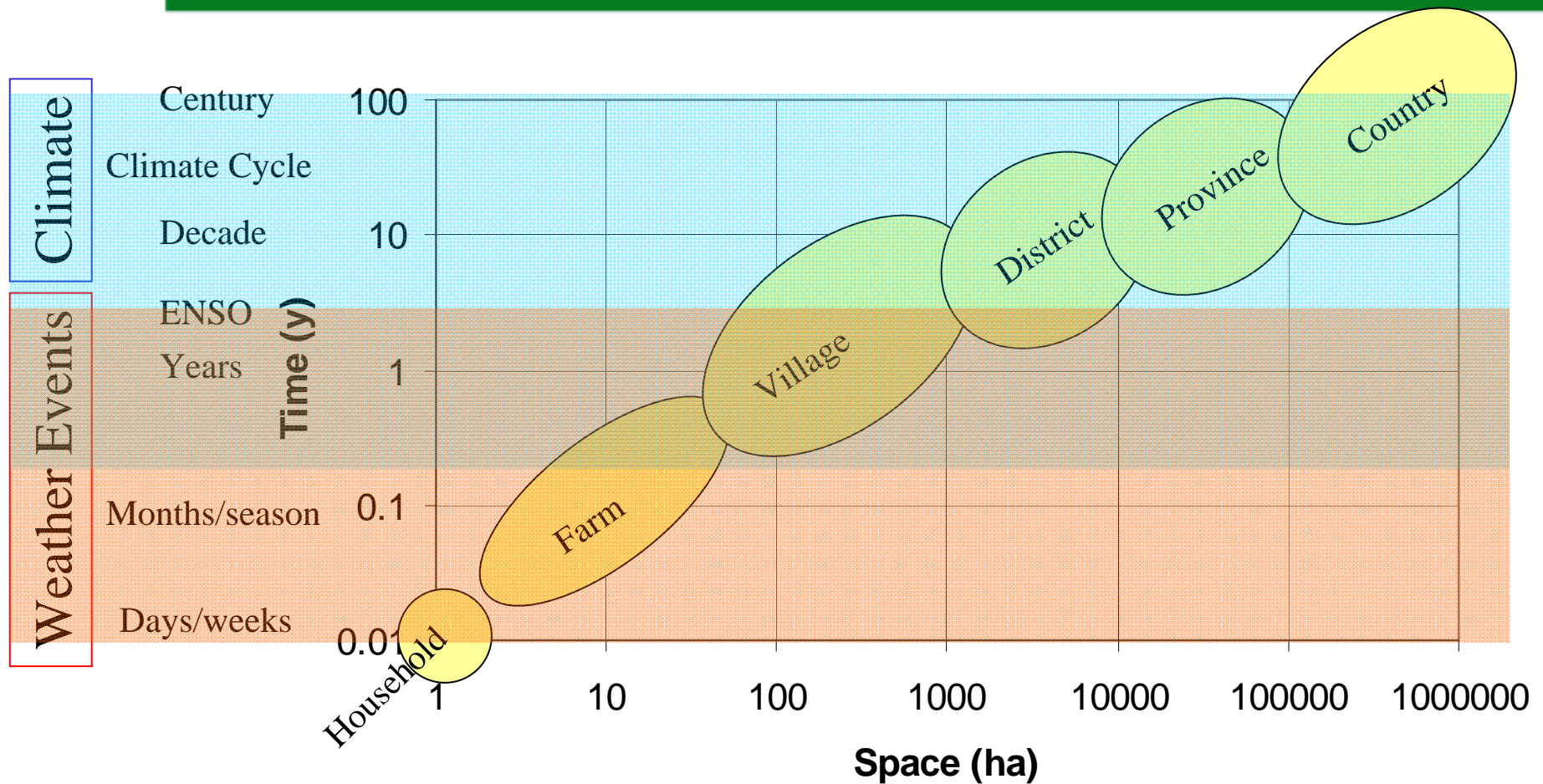
Anond Snidvongs

Southeast Asia START Regional Center (SEA START RC)

c/o Chulalongkorn University and National Research Council

Thailand

Outline

- Local and global threats
- Lessons learnt from Cambodia, Thailand and Vietnam
- Knowledge synthesis process
- Recent development in Thailand

Problems of Scales

Pressing Local Issues in Coastal Zone

- Economic: More service-based economy
- Social: Globalization in terms of livelihood, social cohesion and structure, less harmony with local environment (and climate)
- Environment, ecosystem and natural resource: Generally deteriorate
- Coastal inundation:
  - Short term causes (storm surge, monsoon driven coastal flooding, inland floods, tsunami)
 - Long term causes (coastal erosion, land subsidence, sea level rise)

Regional/Catchment Scale Issues

- Monsoon and typhoon variability
- Geology and tectonic
- Mega project developments and urban centers draw in resources (including human)
- Land use and agriculture policies: Food and energy crops
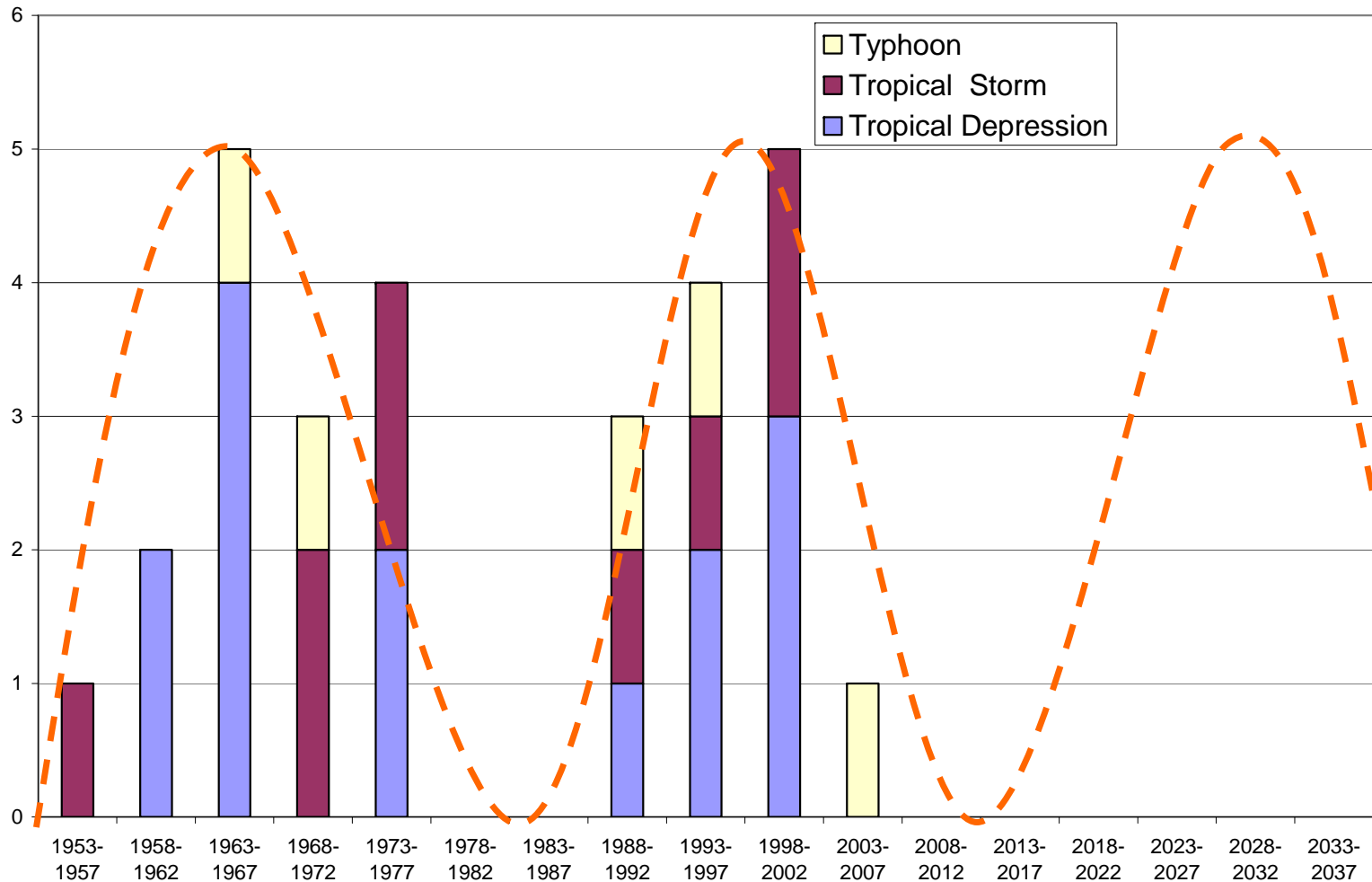- Upstream hydrology

Trend of typhoon-class storm in South Vietnam
(Khanh Hua, Ninh Thuan, Binh Thuan, Ba Ria-Vung Tao, Ben Tre, Tra Vinh, and Minh Hai (Ca Mau)
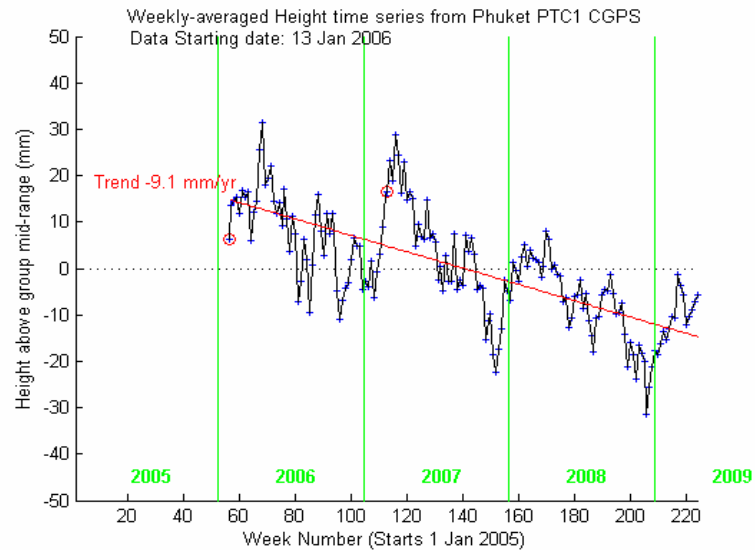
5-year sums

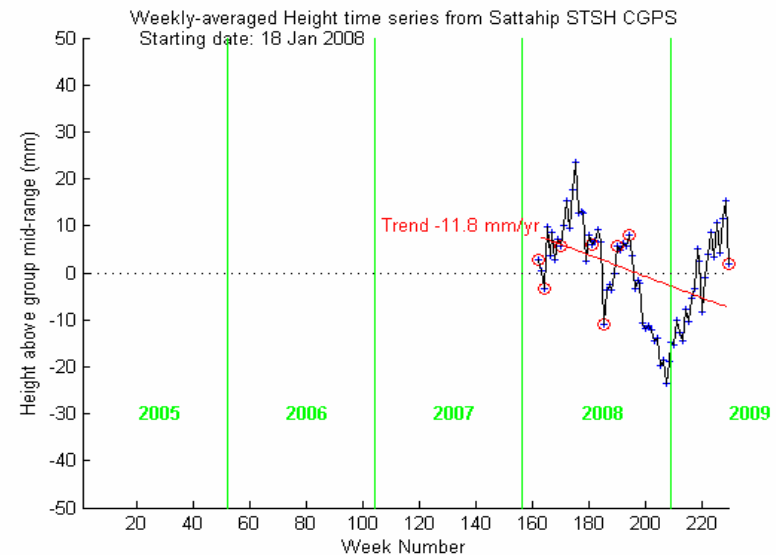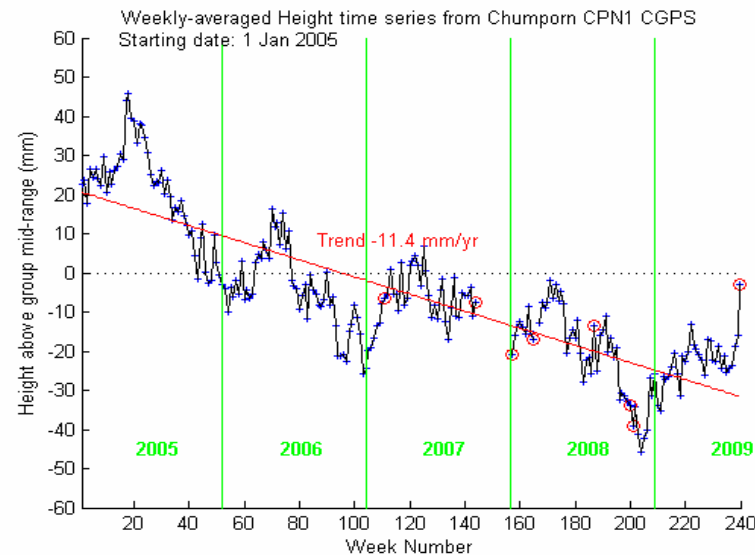Natural cycle

Possibly climate change
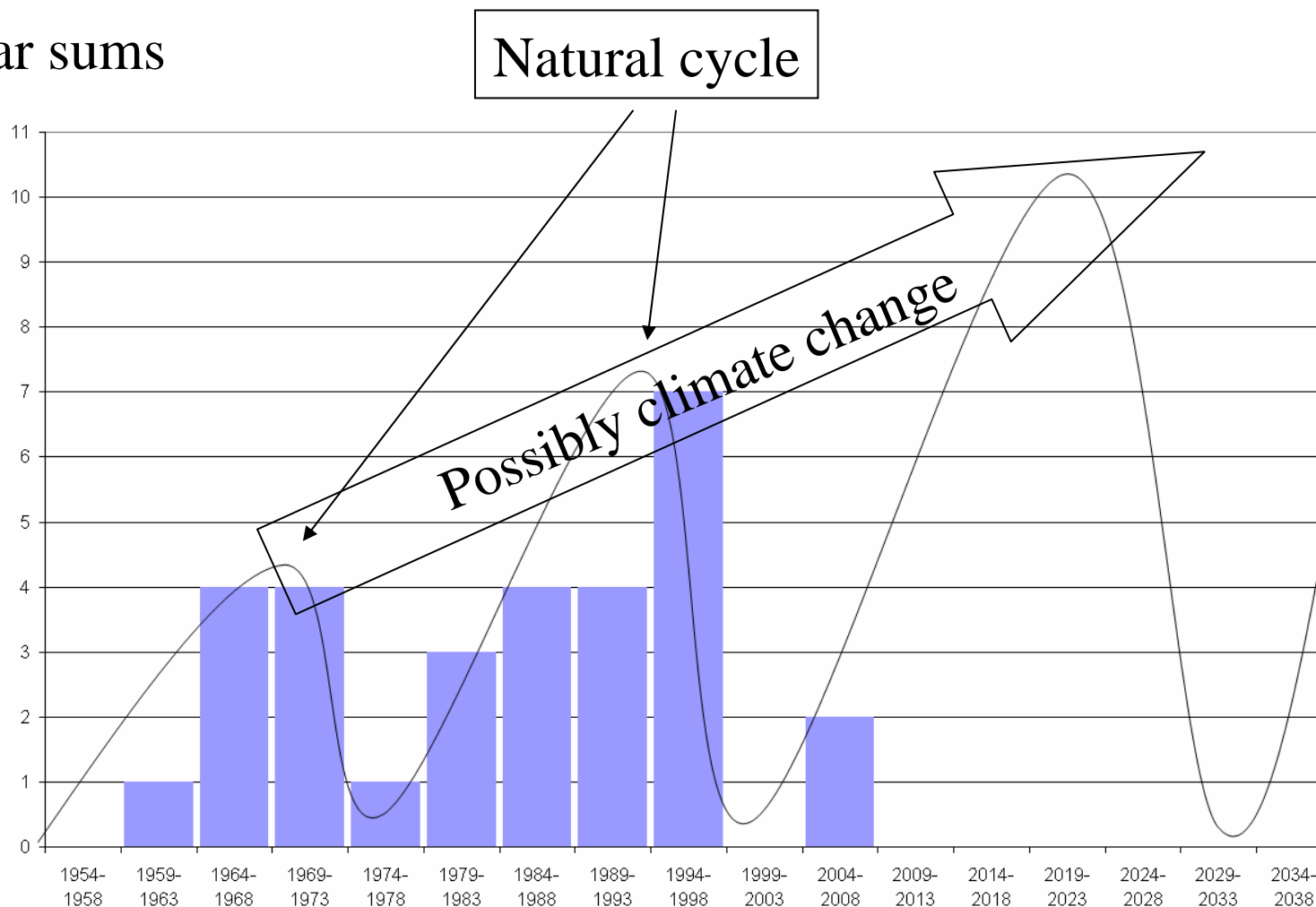
Trends of Cyclonic Storms in the Central Gulf of Thailand
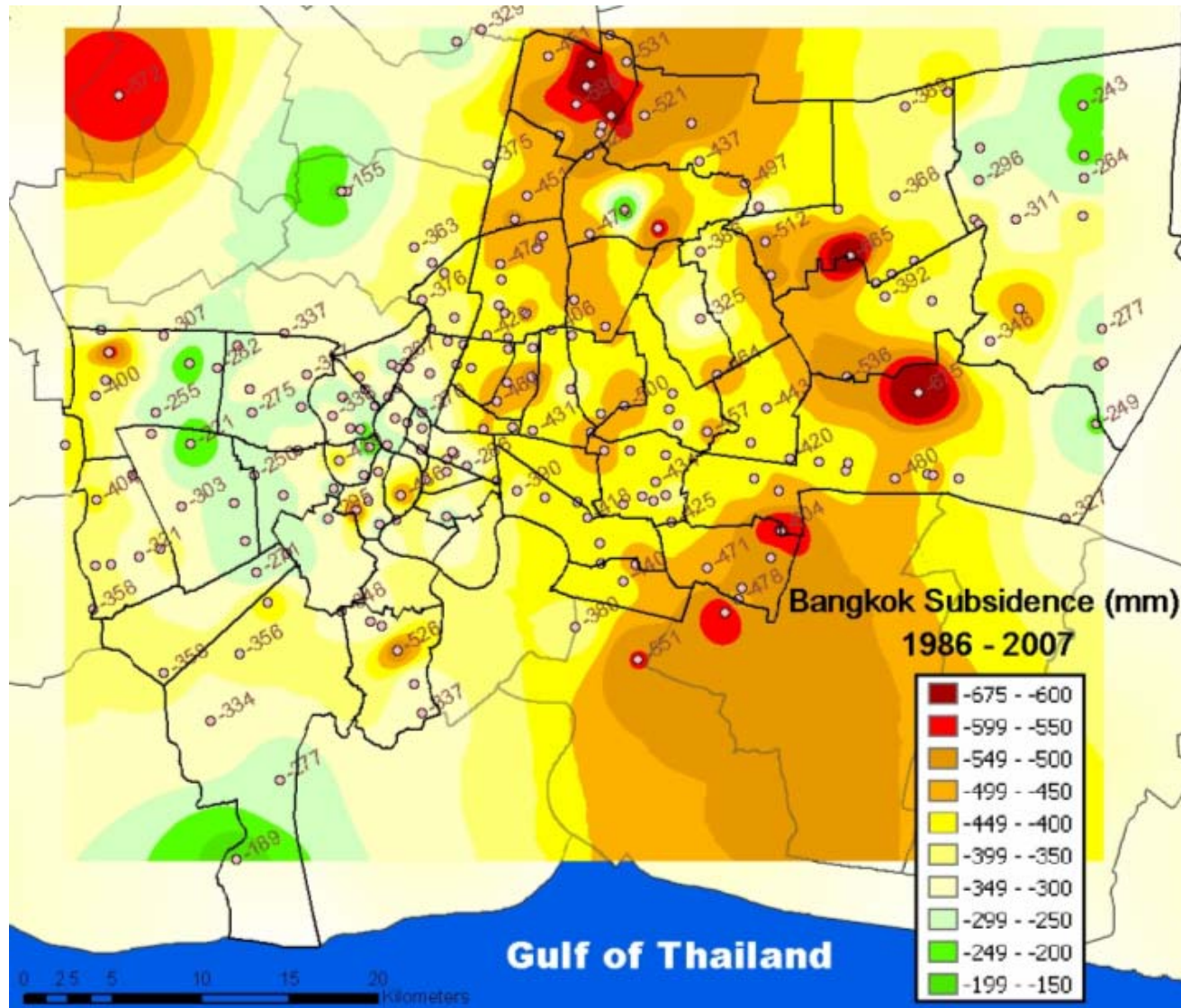
Vertical Displacement of Thailand Coastline

CGPS data from Survey Engineering Department, Chulalongkorn University

Land subsidence (sediment layer depression only) around Bangkok (1986-2007)

Threats from Global Agenda

- GHG driven climate change and sea level rise
- S&T that serve 'city' livelihoods, capital cost for technologies (intellectual property)

Why can't problem be solved:
Lessons learnt from past and present

1. Governments (usually dominate): Concern on where to get money, spend least and get visible (politically impact) quickly

2. Communities and civic societies: Lose faith and trust with centralized government (and its data and science), more inward focused, emotional, 'idolization'

3. Entrepreneurs and developers: Protect investments, want most value per dollar invested, uncertainty about future business environment lead to short-term returns

4. Scientists: Get involve and personal, does not understand roles, take side and carried away, sectoral and discipline oriented, fragmented and not holistic, not sufficiently funded, make too big research problems for limited funding, inability to communicate uncertainty and risks

Knowledge Synthesis through Participation

- Proactive/preventive scenario-based approach to avoid future conflicts of development
- To bridge current gaps and adjust mentality/attitude among stakeholders
- Create sense of common belonging and togetherness

Some Success Factors for Knowledge Synthesis

- Fully participate to ensure sense of belonging

- Repetitive and patient

- Logical foresighting but with imagination

- Use maps and GIS as working platforms

- Not aim for agreement but allow for alternate options for development and how can they be harmonized with future environment and among one another

Roles of Scientists/Academia

- Not to become another part in the conflict
- Do not dominate but to provide scientific rationales
- Encourage for diversity
- Innovative communications
- Knowledge management

Climate Change Knowledge Management Center, Thailand

- A national center under the National Scientific and Technology Development Agency, Ministry of Science and Technology

- Provide knowledge support for systems and sectors to develop in harmony with future climate and other constraints/opportunities

- Multi scale approach (information gathering, dissemination, communication)

![Southeast Asia START Regional Centre logo](IHDP · IGBP · WCRP)

Thank You