

Summary Report—ASEAN Regional Forum Workshop on Emergency Management of Marine Hazards in the Asia-Pacific Region

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Introduction



Scholars and officials from 15 countries, including China, the United States, Russia, Japan, Korea, Pakistan, Bangladesh, European Union, and ASEAN countries, over 80 people in total attended this conference.

Introduction

Opening Session

Mr. Fujiang Yu, Deputy Director General of National Marine Environmental Forecasting Center, SOA, China and Mr. Rithirak Long, Deputy Director General of Ministry of Environment, Cambodia, gave opening remarks as co-chairs.



Keynote Speech

Mrs. Liu Chunjing from Department of Forecasting and Disaster Mitigation, SOA, gave a keynote speech on “Emergency Management Strategy on Marine Disaster in China”, introducing current marine hazard situation, construction of observation and warning system in China, and illustrated development policy of related emergency response mechanism.

Professor Niphon Phongsuwan from Thailand presented a speech on “Coral Reef Bleaching Monitoring in the Last Two Decades in Thailand”, stating facts of coral reef observation, investigation and conservation in Thailand coastal waters in the past two decades.

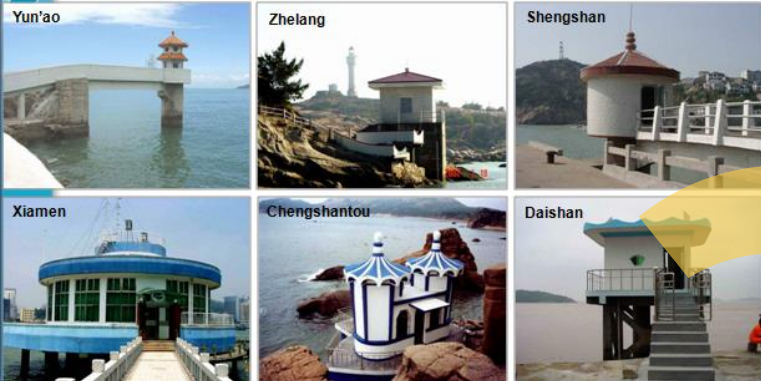


Keynote Speech

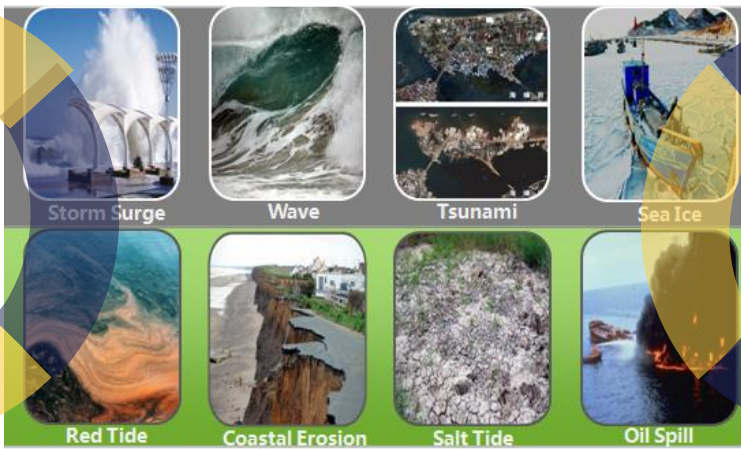
Emergency Management Strategy on Marine Disaster in China

National Coastal Observing Stations

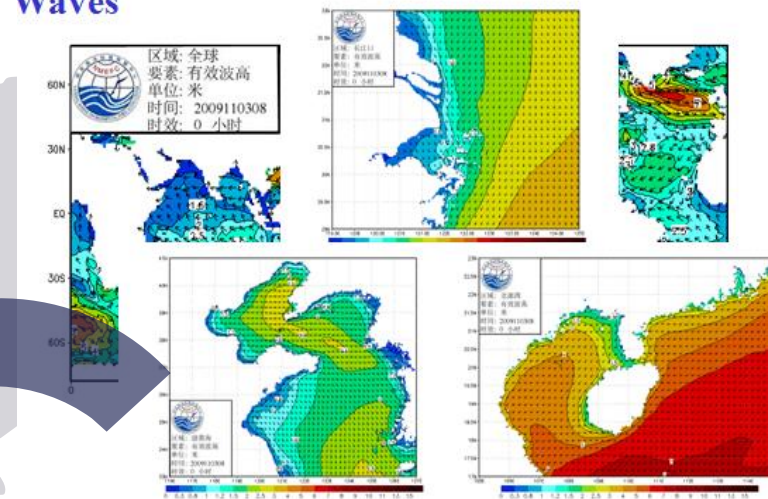
Real-time monitoring of seawater temperature, salinity, tide, wave, GPS, meteorology, marine chemistry, etc



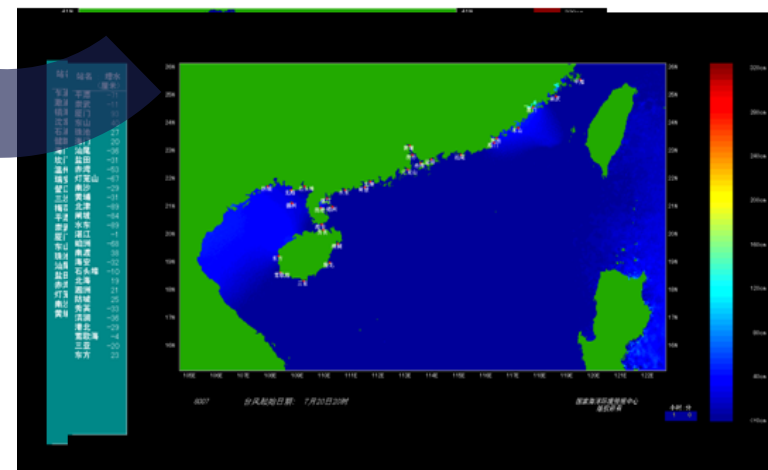
Marine Disasters in China



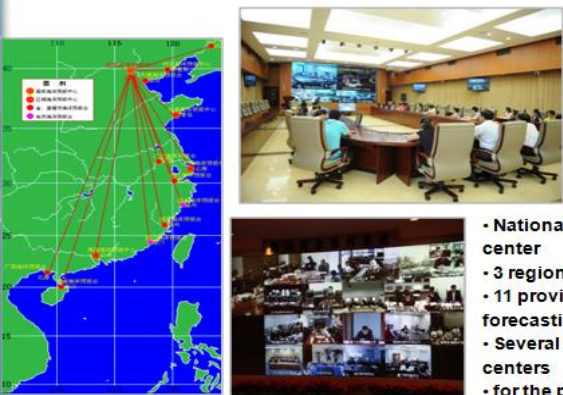
Waves



Strom Surges



National Marine Forecasting Video Consultation System



- National marine forecasting center
- 3 regional forecasting centers
- 11 provincial marine forecasting centers
- Several city-level forecasting centers
- for the purpose of consistence of the forecast

Keynote Speech

Coral Reef Bleaching Monitoring in the Last Two Decades in Thailand



Mass Bleaching Events



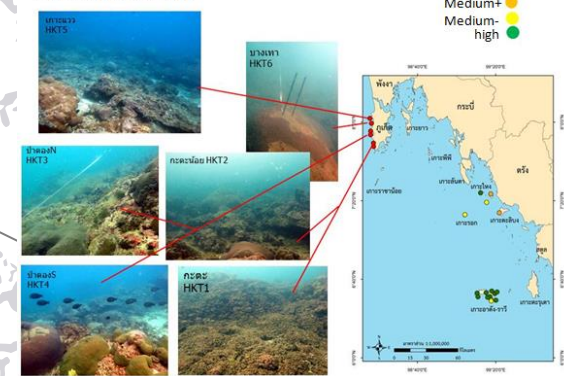
Long term monitoring since 1986

Response plan for bleaching 2016

Preparation (Jan)	Bleaching watch (Feb-Mar)	Incident response (Apr-May)	Post-bleaching response (Jun-Dec)
<ul style="list-style-type: none"> Create the <u>bleaching working group</u> Crate <u>www.thaicoralbleaching.com</u> Create <u>network</u> for monitoring/reporting Prepare the <u>legal measures</u> as a tool to protect/manage the reefs 	<ul style="list-style-type: none"> Follow up the <u>predicted SST</u> (from NOAA, MOMSEI) and regularly check the <u>on-site temperature data logger</u> 	<ul style="list-style-type: none"> <u>Assess</u> the bleaching occurrence <u>Enforce the measures</u> to mitigate human disturbances 	<ul style="list-style-type: none"> <u>Post-asses</u> the impact (coral mortality/recovery, socio-economic aspect) <u>rehabilitate</u>

Response plan

Reef resilient map



Spatial planning to enhance ecosystem resilience

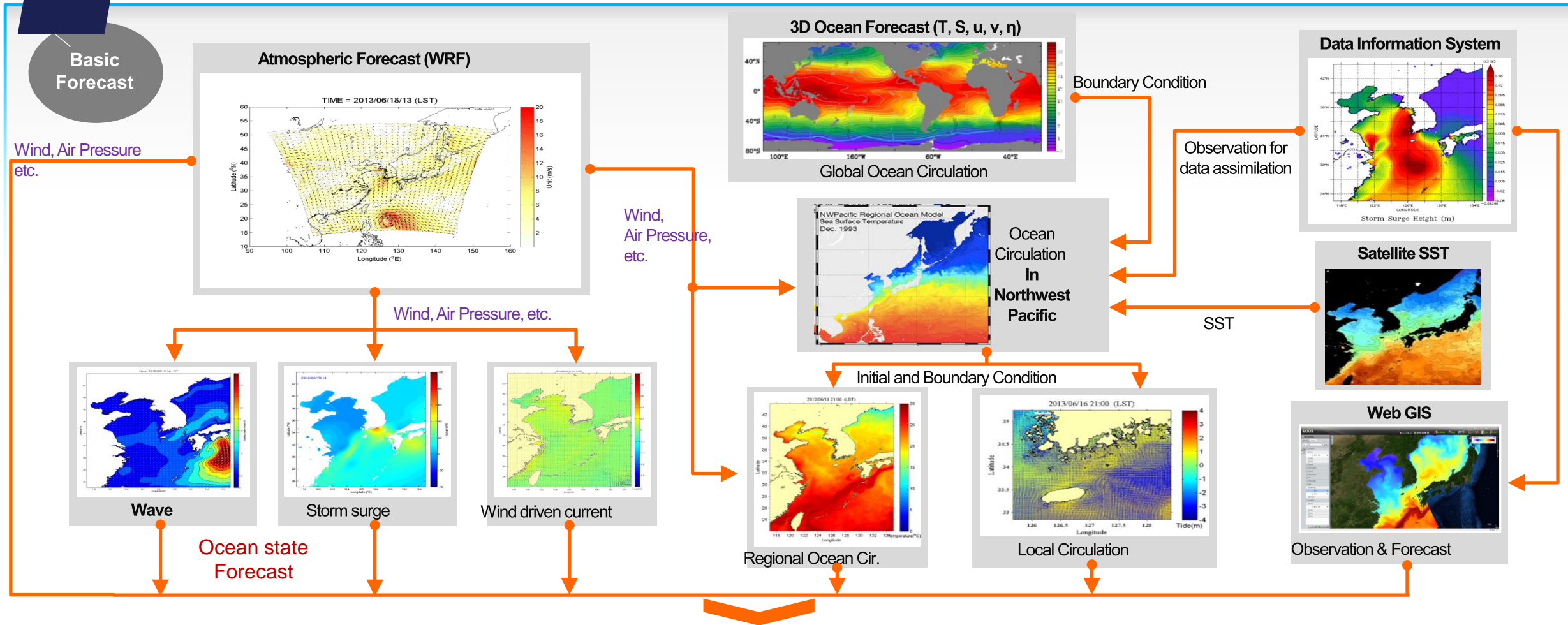
Panel Discussion I

Marine Disaster Monitoring and Forecasting in the Asia-Pacific Region



Dr. Kwang-Soon Park, Principal Research Scientist of Korea Institute of Ocean Science & Technology (KIOST), gave the speech on “Operational Marine Forecasting System (KOOS) for mitigation on the Marine hazards in Korea”, introduced main functions and their applications on search and rescue, oil spill prediction, typhoon and storm surge forecasting of the system.

Panel Discussion I



Applied Forecast

- Oil Spill**: Image of an oil tanker at sea.
- Red tides**: Image of a red tide phenomenon.
- Search and Rescue**: Image of a search and rescue vessel.
- Cosatal disaster**: Image of a coastal disaster.
- Flooding/Inundation**: Image of a person in a boat during flooding.
- Storm waves**: Image of a large storm wave.
- Koren PORTS**: Image of a port facility.
- Leisure Tourism**: Image of a person in a boat.

Panel Discussion I

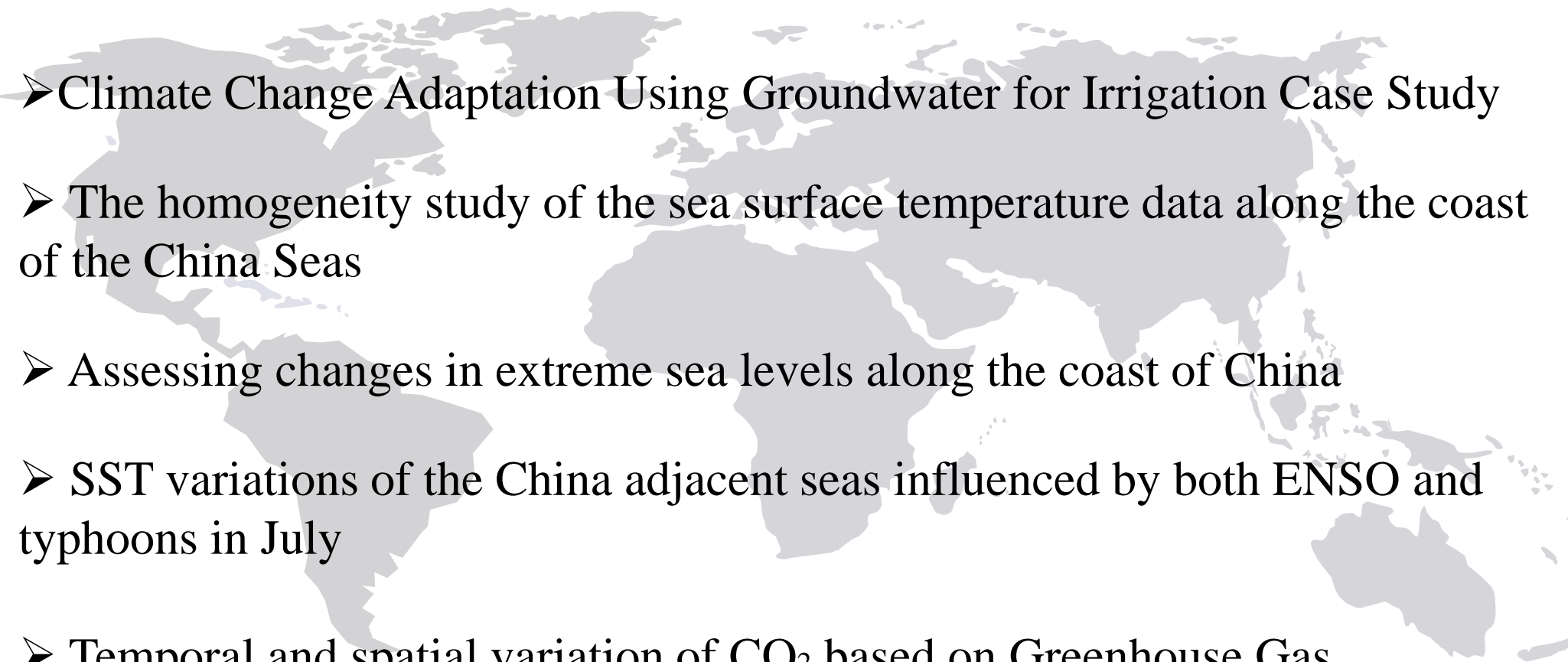
Marine Disaster Monitoring and Forecasting in the Asia-Pacific Region

- Development of air-sea coupled model system for Typhoon Forecast
- SAR system in China Sea and wave drifting velocity analysis
- Global and regional ocean forecasting systems comparison and validation in the SCS
- Design and application of sea ice disaster dynamic monitoring system for offshore structure
- Development of an unstructured-grid wave-current coupled model and its application
- Design and application of sea ice disaster dynamic monitoring system for offshore structure
- Evaluation of operational ocean forecast systems in NMEFC.



Panel Discussion II

Asia-Pacific Climate Change and Forecast

- 
- Climate Change Adaptation Using Groundwater for Irrigation Case Study
 - The homogeneity study of the sea surface temperature data along the coast of the China Seas
 - Assessing changes in extreme sea levels along the coast of China
 - SST variations of the China adjacent seas influenced by both ENSO and typhoons in July
 - Temporal and spatial variation of CO₂ based on Greenhouse Gas Background Station in Xisha

Discussion & Conclusion



Discussion & Conclusion

Mr. Rithirak Long from Ministry of Environment, Cambodia and Dr. Tiejun Ling from NMEFC, China, jointly hosted the discussion session.

- ✓ Scholar exchange and communication mechanism
- ✓ Data sharing system
- ✓ Marine hazards prevention and mitigation policy making and strategic support
- ✓ Constructions of marine hazard early warning and monitoring system, medium and long-term risk assessment system, and emergency response system in coastal countries
- ✓ Public education platform construction



THANK YOU FOR WATCHING