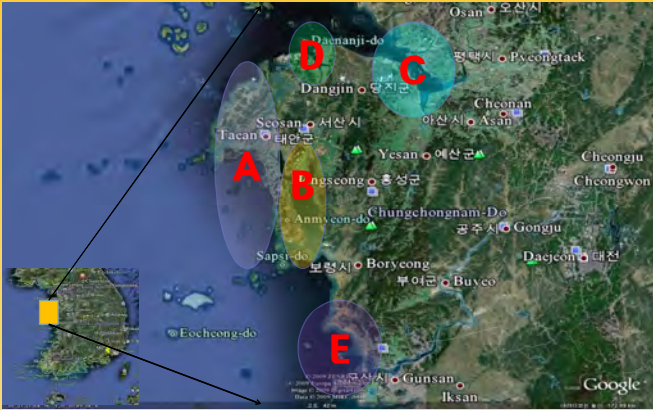


# ChungCheong Sea Grant Program

Action plan (2010-2013)

Hyunhee Park, Mansik Choi, Ahmi Woo  
CHUNGNAM NATIONAL UNIVERSITY

## Chungcheong Coast



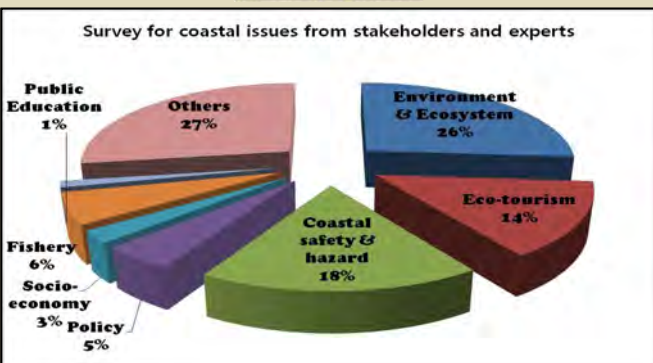
### Social/economic status

- ✓ Coastline 1,225 km (10% of South Korea)
- ✓ Macro tidal area (4-6m)
- ✓ Tidal flat 304 km<sup>2</sup> (13%)
- ✓ Beaches (50), Dunes, Bays, Tidal flat, Estuary, Islands (259)
- ✓ Submerged sand banks
- ✓ Tourism and recreational area (Scenic views and Pensions)
- ✓ Close to capital Seoul
- ✓ Center of seedings: fish, shrimp etc. (70%)
- ✓ Bank Nursery grounds : juvenile prawn, gizzard shad and black rockfish
- ✓ Shellfish production (30%)

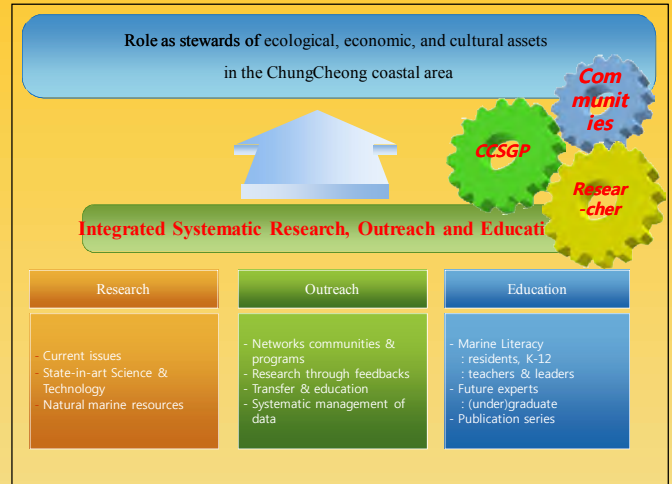
### Coastal development & environment

- ✓ **A:** Tae'an Coastal National Park : 29 beaches, Large Sand dunes
  - Open coast to the Yellow Sea
  - Tourism and recreational area
  - Oil pollution sites (2007): nearly recovered.
- ✓ **B:** Chunsu Bay : Nursery of shells, shrimp, fish etc.
  - Artificial dams for reclamation
  - restricted circulation & occasional hypoxic due to large freshwater
- ✓ **C:** Asan Bay : Trading post, Thermal power plant, Industrial complexes, Several artificial dams, Oil refineries
  - Severe ecosystem damage due to pollutants, historical developments etc.
  - Ship passage & safety
- ✓ **D:** Garolim Bay : Aquaculture at tidal flat and bay, Migratory birds
  - Expected site for the construction of tidal power plant
- ✓ **E:** Seochun & Geum estuary : Wide tidal flat & estuary area, - Wide aquacultural area, Trading post, Industrial complex, Thermal power plant, Geum River dyke
  - Restricted circulation, high sedimentation at aquaculture area,
  - Pollutants & Wastes from the Geum River

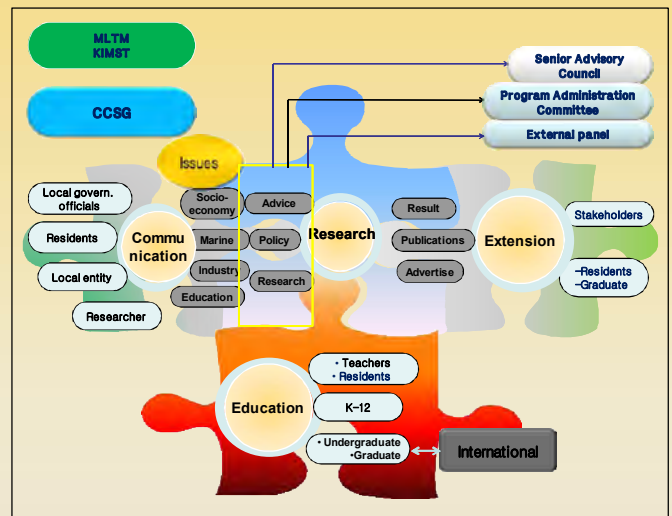
### Current Issues



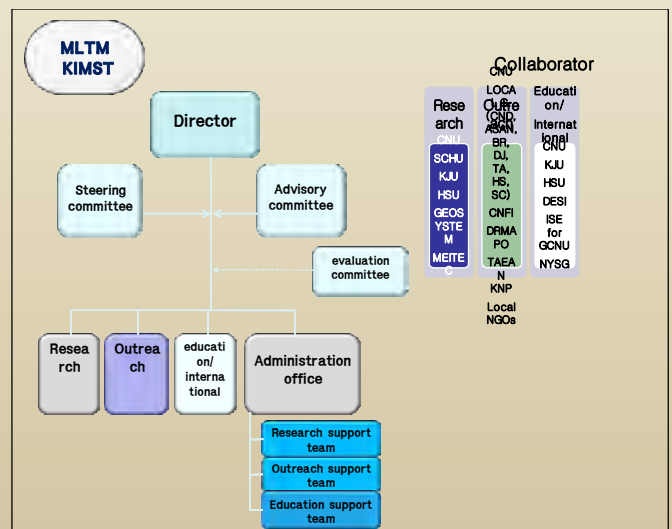
## Vision & Mission



## CCSG Operation System



## Organization



# ChungCheong Sea Grant Program

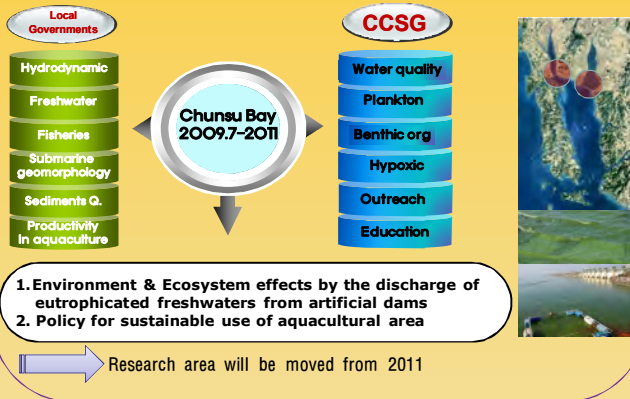
2010 Plan and activities

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## Core Theme

### Environment and Ecosystem

<Estimation of environmental & ecosystem change & Sustainable use of aquacultural area in the Chunsu Bay>

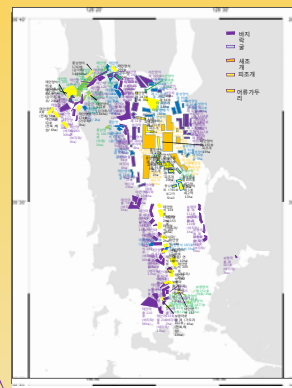


## Program-wide Functional Areas

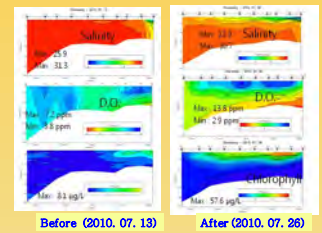
### Research & Extension

**Integrated multidisciplinary researches that can be applied to current issues within core themes of CCSG**

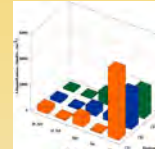
Aquaculture area and type in Chunsu Bay



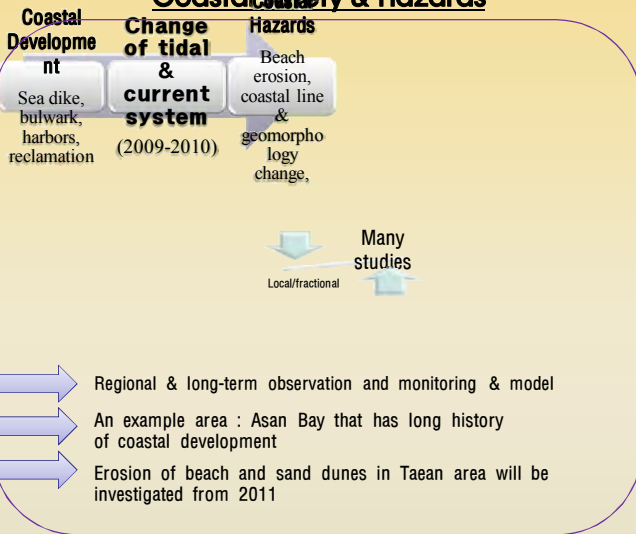
Effects on the water quality by freshwater discharge in Chunsu bay (July 2010)



Seasonal variation of zooplankton abundance (2009-2010)



### Coastal safety & hazards



### Outreach (Communication & network)

**To utilize the informed public's knowledge to decide environmental policy and to enrich their livings**



Seminar, Public hearing, Opinion gathering



Symposium, Workshops

### Eco-tourism & marine sports

Eco-tourism program

Marine sports program



- Education of eco-tourism guides
- Publication of guidebooks for eco-tourism programs
- Co-operation with local governments

### Education

**To offer marine educational opportunities**



Research & Education connection, Research experience program for (under)graduates



Open Lab & Summer Camp for K-12