Observing System Requirements for Managing and Mitigating the Impacts of Human Activities and Coastal Inundation in the Mediterranean Region

Breakout Session A

Identify priority issues (the knowledge gaps) to be addressed through sustained observations, data management and operational modeling in the context of the following four areas of concern.

1. Quantitative indicators of risk and resilience of coastal populations
2. Impacts on coastal infrastructure
3. Impacts on coastal ecosystems
4. Impacts on living resources

Each group will examine the issues from the perspective of different geomorphological/societal regions of the Mediterranean

River Deltas and Coastal Lagoons

Sandy Coastlines and Cliffs

Decisions over next 10 years

1. How to improve risk awareness and knowledge of events? (***)
2. How to provide low latency, detection information for early warning? (*)
3. How to meet legal demands? (**)
4. How best to protect living resources (coastal and marine, e.g., MPA sites)? (***)
5. How to track and adapt to water cycle changes? (***)
6. How best to protect or adapt coastlines, habitats, human infrastructure? (***)

Indicators

- Physical, Chemical and Biological
  - Land sea interaction (e.g., salinization, siltation, subsidence)
  - Bathymetry and near (real) shore conditions, movement (xyz) of material (e.g., sand erosion, tectonics)
  - Land cover, DEM (habitat class, position, condition)
  - Transparency & resultant seabed cover (*Posedonia*)
  - Ecosystem service status/value

Indicators

- Socio-economic
  - Pop dependency on coast
  - Ecosystem service use
  - Economic sector dependency
    - Fishing stock assessment
  - Humans – where are they? How many are there? When are they there (seasonal, migration)? (Vulnerability)
  - Sustainability (Water & power use, waste production)

Decisions over next 10 years

- 1. How best to protect or adapt coastlines, habitats, human infrastructure? (6)
- 2. How to track and adapt to water cycle changes? (5)
- 3.5. How to improve risk awareness and knowledge of events? (4)
- 3.5. How best to protect living resources (coastal and marine, e.g., MPA sites)? (4)

Indicators

- Institutional
  - ICAM in place
  - Policies in place to address legal issues
  - IRCAM in place
  - Measures of capability and performance
  - ICZM – EU demonstration projects

Where to find indicators

- ICAM
- ICARM
- EU ICZM + DEDUCE
- CGOOS + CGTOS
- Blue Plan
- FAO
- OECD
- LEAC/EEA

Gaps & Requirements for systems

- Address North & South Rim Issues
- Address Capacity Building
- Address Data Assimilation, Intercalibration & Exploitation
- Address Linkages & Connectivity for Biotic and Abiotic Movement, including Transboundary Movement
- Address Knowledge/Practice Interface
- Address Land Use / Land Cover (Regional Mapping)
- Address resolution requirements