

Adaptation Planning and Practices in Coastal Zones

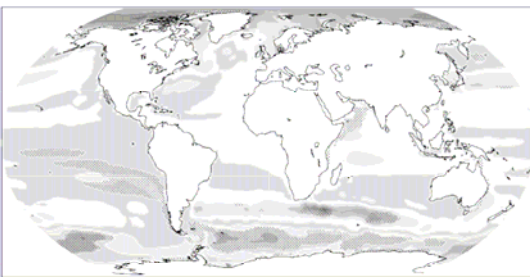
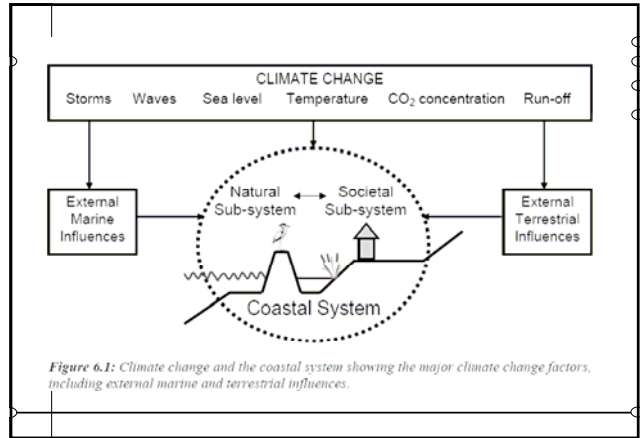


Figure 10.32. Local sea level change (m) due to ocean density and circulation changes relative to the global average (i.e., positive values indicate greater local sea level change than global) during the 21st century, calculated as the difference between averages for 2080 to 2099 and 1980 to 1999, as an ensemble mean over 16 AOGCMs forced with the SRES A1B scenario. Stippling denotes regions where the magnitude of the multi-model ensemble mean divided by the multi-model standard deviation exceeds 1.0.

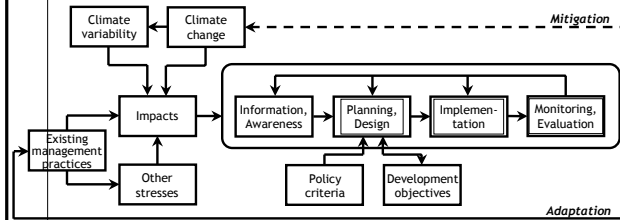
Key Messages from IPCC (WG-II, Chapter 6)

- Coasts are experiencing the adverse consequences of hazards related to climate and sea level (very high confidence).
- Coasts will be exposed to increasing risks, including coastal erosion, over coming decades due to climate change and sea-level rise (very high confidence).
- The impact of climate change on coasts is exacerbated by increasing human-induced pressures (very high confidence).

Key Messages from IPCC (continued)

- Adaptation for the coasts of developing countries will be more challenging than for coasts of developed countries, due to constraints on adaptive capacity (high confidence).
- Adaptation costs for vulnerable coasts are much less than the costs of inaction (high confidence).
- The unavoidability of sea-level rise, even in the longer-term, frequently conflicts with present-day human development patterns and trends (high confidence).

IPCC Special Report on Technology Transfer



	Natural Sub-system	Societal Sub-system
Information, Awareness		
Planning, Design		
Implementation		

Relevant Findings from the Cairo Workshop

- Time frames for assessing, predicting and managing climate-related risks and extreme events in coastal zones vary considerably.
- Non-climate stresses play a major part in increasing coastal vulnerability to climate-related risks and extreme events.
- There are close links between adaptation to climate-related risks and extreme events, and disaster-risk reduction.
- Stakeholder involvement is important at all stages.
- Gaps and barriers include lack of process models and economic information, low awareness, weak institutions.

Relevant Information from Submissions

- Adaptation measures in coastal zones often involve investments in infrastructure, but also changes in practices and in regulations.
- Concerns about adaptation refer to lack of expertise and data, large investment required, competition for public funds, and pressure for development.
- Needs identified include a multi-disciplinary approach and cross-sectoral cooperation.
- Important planning tools include cost-benefit analysis and environmental impact assessment.