## ADDITIONAL INFORMATION.

## COASTAL MANAGEMENT AND SEA LEVEL RISE.

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## Basic Principles of Coastal Resource Management and Planning

Coastal resource management and planning is a means of developing, organizing and controlling the use of coastal resources to meet nationally defined needs, goals and objectives. Coastal areas contain some of the most biologically productive and diverse environments on the face of the earth. The resource development potential of these environments is great, however the form and intensity of individual uses require careful management if the development potential of the renewable resources is to be maximized and to yield sustainable forms of development.

A series of basic principles which apply to the management of coastal environments and the resources they contain may be listed as follows:

- 1. The coastal zone is unique and has special needs for management and planning. Traditional land-based or marine-based forms of management and planning must be modified to be effective for the transition area between land and sea.
- 2. Water is the major integrating force in coastal resource systems. Every aspect of a coastal management and planning program relates to water in some way, requiring unusual and complex institutional arrangements.
- 3. Coastal zone land and water uses must be jointly planned and managed. The CMP process recognizes coastal lands, waters, and intertidal areas as an interacting and indivisible unit that lies between the dry land and the open seas.
- 4. Sustainable development of coastal resources is a major purpose of coastal management and planning. An important premise is that renewable resources should be managed to provide optimum social/economic benefits on a perpetually sustainable basis.

- 5. Multiple use of renewable coastal resources is emphasized by coastal management and planning. Single, exclusive use of particular coastal resource units is discouraged by CMP in favor of multiplicity of uses whereby conservation and development become compatible goals.
- 5. The focus of coastal management and planning is on common property resources. While planning and management strategies may of necessity include control on use of private activities and properties, the main purpose of CMP is usually the caretaking of common property resources.
- 7. Integrated, multiple-sector involvement is essential to coastal management and planning. A major purpose of CMP is to coordinate the initiatives of the various coastal economic sectors toward long-term optimal social-economic outcomes, including resolution of use-conflicts and beneficial tradeoffs.
- 8. All levels of government must be involved in the coastal management and planning process. Coastal areas and coastal resource systems are often administratively complex because of the degree of shared jurisdiction and the amount of common property resources involved therefore, CMP activities need to involve all levels from national to village governments.
- 9. Coastal management and planning boundaries are issue based and adaptive. There is no single description of "coastal area" or "coastal zone" for the CMP process; boundaries are delineated on the basis of the problems CMP attempts to solve and must be adaptive to the evolution of the process.
- 10. Coastal management and planning is structured for incremental implementation. While CMP benefits from being organized in a nationwide, comprehensive format,

- it can be implemented on either a region by region basis or a resource by resource basis.
- 11. Coastal management and planning emphasizes the naturesynchronous approach to development. The most costeffective approach to coastal development is to respect
  the strength of natural forces operating at the coast and
  to design projects to utilize or adapt to these forces
  i.e., to "design with nature".
- This entails strategic investigations at the initial stages of planning and focusses on the abilities of environmental systems to support different types and levels of development and to respond to alternative forms of management. This differs from EIA in that the former addresses the question of how environmental systems can assist development whereas the latter addresses the question of how the environmental impacts of development can be reduced. EIA can come at a later stage in the development planning process and can profitably build upon the more broadly based EA. Both EA and EIA should be incorporated into any coastal management and planning program.
- 13. Special forms of economic and social evaluation are required by coastal management and planning. The complexities of coastal renewable resources development requires special methods be devised in order to clarify the development alternatives and the costs and benefits each alternative involves.
- Note: These principles have been very slightly adapted from the 13 principles prepared by John Clark for the U.S. Department of the Interior. A new principle, number 12 in this list, has been added which incorporates principle number 13 in John Clark's original list.