

Ecosystem Management in Java, the Baltic Sea and the Great Lakes

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The management of enclosed seas reflects an increased interest and concern for the preservation and wise use of resources, land uses, and development in the coastal zone. As a result of this issue, several recent projects have focused on improving the understanding of the human and natural structure and functions of these ecosystems. The approach is based upon assessing the knowledge base, identifying information gaps, monitoring land uses, identifying significant and critical areas, promoting communication and education, determining the role of public participation, and defining institutional and management arrangements.

The ABC Resource Survey method is utilized to collect, analyze and map information as a means towards identifying key issues and areas of concern and significance and constraints for management based upon principles of conservation and sustainable development. The Segara Anakan estuary mangrove ecosystem on Java, Indonesia; the Baltic Sea and coastline of Ustka, Poland; and the Long Point wetland/sand spit complex on Lake Erie, one of the Great Lakes, are characterized by common regional seas management issues including urban and industrial development, increasing tourism and recreation, stresses on ecosystem health, threats to biodiversity and conservation of natural areas, and an overlying mosaic of institutional and management arrangements. Research suggests a need for adaptive and interactive planning, the development of management strategies based upon sustainable development and conservation, monitoring of ecosystem integrity, and increased awareness, communication, and education about coastal ecosystems and seas in particular.