"Integrated management strategies – a vital instruments for Lagoon conservation"

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What are the Coastal Lagoons?

Coastal Lagoons are:

- > an integral part of the coastal landscape;
- > typical zones between the continent and the sea, usually oriented parallel to the shore;
- > shallow water bodies separated from the ocean by a barrier, connected to it by one or more restricted inlets.

Their origin

- Coastal lagoons are formed and maintained through sediment transport processes. Sediment carried by rivers, waves, currents, wind, and tides accumulates in river and tidal deltas, on marshes and flats where submerged aquatic vegetation slows currents, and on wash over fans.
- The existence of ecological gradients, due to the transition from the continental to the marine domain creates the peculiar ecological conditions that characterize these ecosystems.
- Coastal Lagoons: <u>Peculiar areas</u> by origin but <u>Critical</u> <u>Habitats</u> of Environmental Change

Sensible from climate change

- These characteristics make coastal lagoons unique aquatic ecosystems, characterized by high sensitivity to natural and anthropogenic factors.
- Global climate change is affecting the physical structure, ecological characteristics, and social aspects associated.
- Fragile coastal lagoons and the community that depend on them represent a particularly complex from climate change.

Their importance

- Coastal lagoons are considered valuable aquatic ecosystems and occupy about 13 % of the world's coastlines (Barnes, 1980) and about 5.5 % of the European coast (Razinkovas et al., 2008), where they are particularly abundant around the Mediterranean Sea and the South-eastern Baltic coasts.
- The range of ecosystem services provided is large, including food production, both within (Fish, shellfish, birds,) and around lagoons (cropping, pasturelands), industrial exploitation such as salt works. Their function as centers of human population benefits also from the proximity of lagoons to river deltas, ensuring freshwater supply.
- Lagoons and their associated ecosystems are highly social values, also, reflecting their commercial, recreational, and tourism uses.....

Restoration & Management Strategies

- Since prehistoric times Coastal lagoons have constituted a vital natural resource for human communities as they are of highly productive ecosystems.
- Ecological restoration is the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed society may benefit from ecosystem conservation and restoration measures;
- Best way of lagoon conservation strategy is considering ecosystem restoration as part of them;
- Stakeholder involvement process ensures success and responsible activities on them;
- There is a need to apply an integrated approach that takes into consideration economic, social and environmental goals.

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- Building coastal lagoons management strategies, preferably regional ones, (e.g. Mediterranean Basin) ecosystem based, social & economic by engagement the coastal communities in coastal management decision-making, regardless of their social, political, or economic influence.
- Dynamic and adaptive to new information and changing circumstances flexible reviewing management measures and rules according the results from monitoring process is vital.
- The geographical definition of the planning and management area should encompass the body of the lagoon, its catchment area, the region in which it exists, as well as the adjacent marine environment.

Integrating principles

- Using the lagoon systems as a multiple resource.
- ICZM instrument is considered an important Instrument towards a successful managing the multiple and complex problems of the coastal areas/lagoons migration of population from the rural areas to the coastal urban areas. Haphazard, unplanned and unregulated urban growth, represent a growing threat to the sustainability of the fragile coastal and marine ecosystems;
- Integrated coastal zone management (ICZM) represents a cross-sectoral, inter-agency, and multidisciplinary approach to the many and varied issues affecting the biological and physical and social resource base within the wider coastal and oceanic environment
- Planning and management decisions should view coastal lagoons as a natural systems that are part of the coastal area, so, they are integrals to a much wider context of regional dimensions.

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- The coasts are highly valued and greatly attractive as sites for resorts and as vacation destinations, so, ecotourism development would increase revenues for communities in these areas without increasing pressure on resources.
- The growing popularity of ecotourism has led to the increase in demand for nature-oriented recreational services and access to coastal protected areas. Protected Areas: Areas of land or water that have been specially designated to protect some aspect of flora, fauna, habitat or ecosystem, usually for the protection of rare and endangered species.
- Transparency And Stakeholder Participation
- Implementation, including operation and maintenance (mainly on national level) <u>Management instruments</u>: Regulation/legislation: national and local laws, standards, permits.

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- <u>Protecting the biodiversity</u> by applying ecosystem approach to all activities.
- Fishing activity, as well as other economic activities should remmain of <u>traditionally</u>, performed by fishermen groups/ associations/cooperatives and their activity based on coomanagement principles;
- Lagoons and their catchment areas should have <u>environmental</u> <u>protection status</u> according their importance, to make possible building and implementing <u>efective management measures</u>, skillful staff, proper budget for maintenace investments, etc.

Conclusion

As conclusion, these features make coastal lagoons a vital ecosystems which underline the importance of sound management strategies for long-term environmental and resource sustainability

Thank You!

















