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Integrated Coastal Planning and Management

SANTOSH GHOSH
President, Centre for Built Environment

One third of world's urban areas is on the coast. In many countries coastal areas are vulnarable to natural disaster, adverse environmental impact and pollution besides fragile ecology. Scenic beauty of ocean and shoreline, marine life, wild flora and fauna etc are being damaged. Unsustainable realestate development in coastal towars is also responsible for loss of life and property as seen in the recent Tsunami disaster. There is an awareness for an integrated coastal planning and management and there should be a holistic vision. An aesthetic framework can also be developed.

(a) Environmental: A regional environmental study is required with different parameters□physical, biological, ecological etc. Different matrix can be evaluated and assessment can be made on the impact of large development, some upstream pollution and techniques of environmental monitoring can be outlined. With the help of remote sensing/GIS it is possible to develop date base. Phyto technologies and ecohydrology provide on effective system for the restoration of degraded environment.

(b) Town planning and architecture: Planning with zoning, coastal zone regulation and building rules for architecture have become conventional but what is required is sustainability in broader context with utilisation of solar and wind energy, use of wastewater, recycling of waste, urban agrihortiaquaculture and disaster mitigation measures. New guidelines are suggested for coastal areas. There are many engineering structure like piers, jetties etc and design standard requires modification. A landuse model can be developed using different parameters-physical, biological, socio-economic and environmental.

(c) Governance: A structure of governance with participatory process is required for coastal zone. But public awareness, education and training are essential for sucessful implementatin of integrated coastal planning and management. Early warning system, disaster mitigation measures are to be developed. All stakeholders are to be involved Physical, Biological and Ecological parameters are to be integrated at different levels of development.

Management aspects: An integrated coastal plan may be divided into zones and planning process may be from generic macro level to specific micro level. It should include risk management