

COASTAL ZONE MANAGEMENT

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The objective of coastal zone management is to ensure the orderly and balanced utilization of all living and non living resources in order to maintain, and where possible, restore and enhance the environmental quality of the coastal zone.

Coastal zone management is a recently new phenomenon in Sri Lanka as well as in many other developing countries, and has been necessitated by a deterioration of the coast line and necessary developments taking place on the coastal zone. Since colonial times the centre for trade and commerce has increasingly been in coastal areas. At present more than half the population lives and works in the coastal belt that encircles the country. The trade and commerce that provided the impetus for coastal communities in colonial times has been supplemented by fishing, tourism, communications and a host of other important economic activities.

The increase in the coastal population and economic activities has resulted in increased competition for the use of coastal land in development activities that degrade or deplete natural coastal resources faster than they can be naturally renewed, in increased exposure of people and property to natural hazards such as flooding, and in the loss of traditional rights of access to the beach fronts. In particular, these are current coastal problems in need of mitigation:

- 1) Coastal erosion caused by natural processes, sand and coral mining, improperly situated coastal works, loss of coastal vegetation, improperly sited coastal developments and related causes.

- 2) Degradation or depletion of natural habitats caused by coral mining, land reclamation practices, sewage and industrial wastes, exploitation of mangroves etc.
- 3) Increased loss of life and property to natural hazards caused in part by improper location and construction of houses and other structures in areas regularly subject to natural hazards.
- 4) Loss of physical and visual access to ocean caused by siting of hotels and other facilities in ways that impede access.
- 5) Resource use conflicts

While this list is not all inclusive it is nevertheless indicative of the range of coastal problems in Sri Lanka which should be addressed as a matter of national policy.

The types of problems encountered are not unique to the coastal areas, but are encountered even beyond. However, such problems in the coastal area assume considerable importance because of the unusual productivity of the area and its ecosystems and because of man's extensive and growing use of these areas, for settlement, industry, trade, recreation and amenity.

Sri Lanka has already instituted a coastal zone permit system for regulating development in coastal

areas. This permit system is an important interim procedure for dealing with coastal problems. However, regulation alone is not a sufficient basis for management of coastal problems, it also requires:

- * further research on the dynamics of coastal problems;
- * identification of a system of incentives to encourage particular coastal uses and to discourage others;
- * identification of particularly valued or threatened resources;
- * the development of systems for setting priorities among coastal uses and activities and the identification of priorities for public investments in public works;
- * co-ordination of the activities of several government agencies;
- * development of education and training programmes for resource managers;
- * development of public education and awareness programmes.

Coastal Zone Management Plan

The coastal zone management plan provides the framework for identifying, describing and explaining coastal problems. It also provides the basis for identifying and evaluating alternative strategies for dealing with these problems.

The coastal zone management is both a process and product. As a process, the plan involves identi-

fyng and evaluating strategies for dealing with coastal problems. This process is partly technical. Specialists in a variety of fields must be consulted to ensure that the problem dynamics are well understood and the proposed mitigation strategies will have the intended effects. However, the process necessarily involves the development of mutual understanding with other government agencies and concerned individuals to determine if optimal resource management strategies are acceptable and practical. Hence the proposed planning process is an incremental one in which strategies will be identified, evaluated by specialists and non-specialists and adapted and refined as may be necessary to meet Sri Lanka's special conditions.

As a product, the plan will be a framework which can guide resource managers, direct national and international investments in research, training and education, direct public investments in coastal land reclamation, tourist development and coastal works, and guide the activities of other agencies whose regulatory or investment activities have an impact on coastal problems.

No coastal management plan can be truly comprehensive. There are far too many decisions by individuals and public agencies affecting the coastal zone to hope that any one document can guide all such activities and resolve all conflicts over alternative resource uses. However the proposed plans should be co-ordinated in the best sense of that over worked term by indicating processes which should be followed if the most effective and efficient uses of the coastal resources are to be made.

Although the Coastal Conservation Act mandates the Department to prepare the Coastal Zone Management Plan, the process of plan preparation and the content of the plan are of vital interest and concern to many government

departments and indeed to the public at large. A major premise upon which the plan is based is that no single agency can hope to regulate or direct all activities in the coastal areas. Therefore a major purpose of the plan is to provide a framework which facilitates a co-ordinated approach by many agencies whose jurisdictions include coastal areas. Hence, the planning activities must be broadly understood and accepted to ensure effective management.

Elements of the coastal zone management plan are specified in the Act and include:

- a) the guidelines to be used in determining the suitability of particular development activities in the Coastal Zone;
- b) proposals which deal with the following subjects:
 - 1) land use;
 - 2) transport facilities;
 - 3) preservation and management of the scenic and other natural resources;
 - 4) recreation and tourism;
 - 5) public works and facilities, including waste disposal facilities, harbours and power plants;
 - 6) living resources.

Management and Planning Principles underlying the Preparation of the Coastal Zone Management Plan

Several management and planning principles provide the basis for the plan. They are intended to stimulate awareness and discussion. On the basis of these discussions, the basic principles will be modified, if necessary, until there is broad understanding and agreement about the need for a coastal zone management plan and the basic approach to the preparation of that plan.

Management Principles

The management principles that require consideration include:

- a) The coastal zone is a fragile and vulnerable area that requires specific management.
- b) The coastal front is the common heritage of the nation and every citizen has access to it.
- c) The control, custody and management of the coastal zone is vested in the Republic.
- d) The state accepts liability to maintain and when possible to improve the quality of its coastal zone by means of regulation, acquisition, investment or other strategies as may be consistent within the needs and interests of all the people, including future generations.
- e) In accepting responsibility for the management of the coastal zone, the state and its agents recognize that there are limits to that management responsibility. The coastal zones of Sri Lanka are ecologically vulnerable and inherently unstable areas subject to natural processes as well as human intervention. Not all impacts of natural processes can be controlled and some such attempts may result in social, economic and environmental costs that are prohibitive.
- f) Any person, whether an individual, private company or government agency, wishing to under-

take a development activity within the coastal zone must accept liability to carry out such activity in a manner that would

not significantly affect the stability, quality or productivity of the zone.

g) Fishing, on which a significant percentage of the

nation depends for a livelihood and which is essential for its sustenance, will have priority over other activities in the allocation of coastal resources.

h) The management of coastal resources and activities affecting those resources is the responsibility of many.

agencies. The management role of the Coast Conservation Department is to ensure that in so far as possible, all development activities in the coastal zone are consistent within the principles of sustained resource yields. This will be achieved primarily through co-ordination of the activities of several agencies and also by means of investment, research and direct regulation.

i) Direct regulation by the Coast Conservation Department will occur only in the coastal zone as defined by the Act.

Planning Principles

The planning principles that require consideration include:-

a) The coastal zone management plan will be done in phases.

b) Each phase of the planning process will involve a detailed analysis of coastal problems including their causes, scope, severity and duration.

c) Although the Act defines the coastal zone as having landward limit of 300 metres from the mean high water mark, for planning purposes a somewhat larger area will be considered in the analysis of coastal problems involving uses and activities which have a direct and significant affect on the coastal zone or resources, such as lagoons, wetlands and estuaries which extend further landward.

d) Each phase will involve an analysis of existing laws, regulations and institutional responsibilities for dealing with casual factors in coastal problems.

e) Alternative strategies for managing each problem will be identified and evaluated.

f) The choice of problem mitigation strategies will take into consideration how best to work within the existing legal and institutional frameworks.

g) Each problem mitigation strategy will be regarded as a policy experiment to be continued, modified or abandoned based on implementation experience and on-going evaluation.

h) Each problem mitigation strategy will require careful review and comment by the relevant agencies and individuals prior to implementation to ensure its practicality and acceptability.