


Coastal Ecosystems of Sri Lanka

reclassified in 2009

Parent coastal ecosystems




MARINE AND COASTAL ZONE (MCZ)

Description	A belt of coastal sea extending about 10 metres from the average low tide level to a 30 metre depth of water.
Value	The MCZ provides habitats for a wealth of species and is the area where coastal fishery is practised.
Threats	Pollution from both inland and from marine sources, habitat destruction of coral reefs and seagrass meadows.



BEACHES

Description	Accumulations of loose sand, coral pieces, pebbles and mineral sand.
Value	Beaches are important areas for fish landing and recreation.
Threats	Erosion as a consequence of inland river sand mining that disrupts natural replenishment; construction of coastal infrastructure, such as groynes and jetties and offshore breakwaters; solid waste pollution.




ESTUARIES

Description	Openings of rivers into the sea, where freshwater from inland and salt water from the sea mix, forming brackish water.
Value	One of the most productive coastal ecosystems, providing habitats for seagrasses and mangroves, and home to many commercially important fish and shellfish.
Threats	Increased sedimentation and pollution from inland.




SAND DUNES

Description	Dunes are wind blown accumulations of sand, which are distinctive from adjacent landforms such as beaches and tidal flats.
Value	Serve as physical barriers to retard the force of coastal hazards.
Threats	Erosion (see Beaches); sand mining; flattening of dunes for illegal construction of coastal infrastructure.



BAYS

Description	Indentations in the coastline, with stable headlands.
Value	Shallow bays house coral reefs, seagrasses and mangroves and their associated species. Bays support traditional fisheries.
Threats	Pollution from both inland and marine sources, habitat destruction of coral reefs and seagrass meadows.



LAGOONS


Description	Lagoons are late evolutionary stages of smaller estuaries where the opening to the sea is blocked by a sand bar.
Value	Like estuaries, lagoons are very productive, supporting coastal fisheries, as many commercially valuable species of fish and shellfish are found here. Serve as buffers for coastal hazards.
Threats	Increased sedimentation and pollution from inland; changes in water quantity and quality.



TIDAL FLATS


Description	Low-lying areas in the coast, lagoons or estuaries where sediments from river runoff, or inflow from tides, deposit mud. These areas are flooded periodically.
Value	Tidal flats are feeding grounds for many migratory birds; they absorb flood water and storm energy and prevent erosion.
Threats	Habitat destruction: conversion for aquaculture and agriculture.

Coastal Habitats



MANGROVES

Description	Plant communities which live between the sea and the land, in areas which are flooded by tides for part of the time.
Value	Serve as nurseries and breeding grounds for many commercially important fish and shellfish; important in carbon sequestration; and attenuating floods.
Threats	Habitat destruction for development, aquaculture and salters.



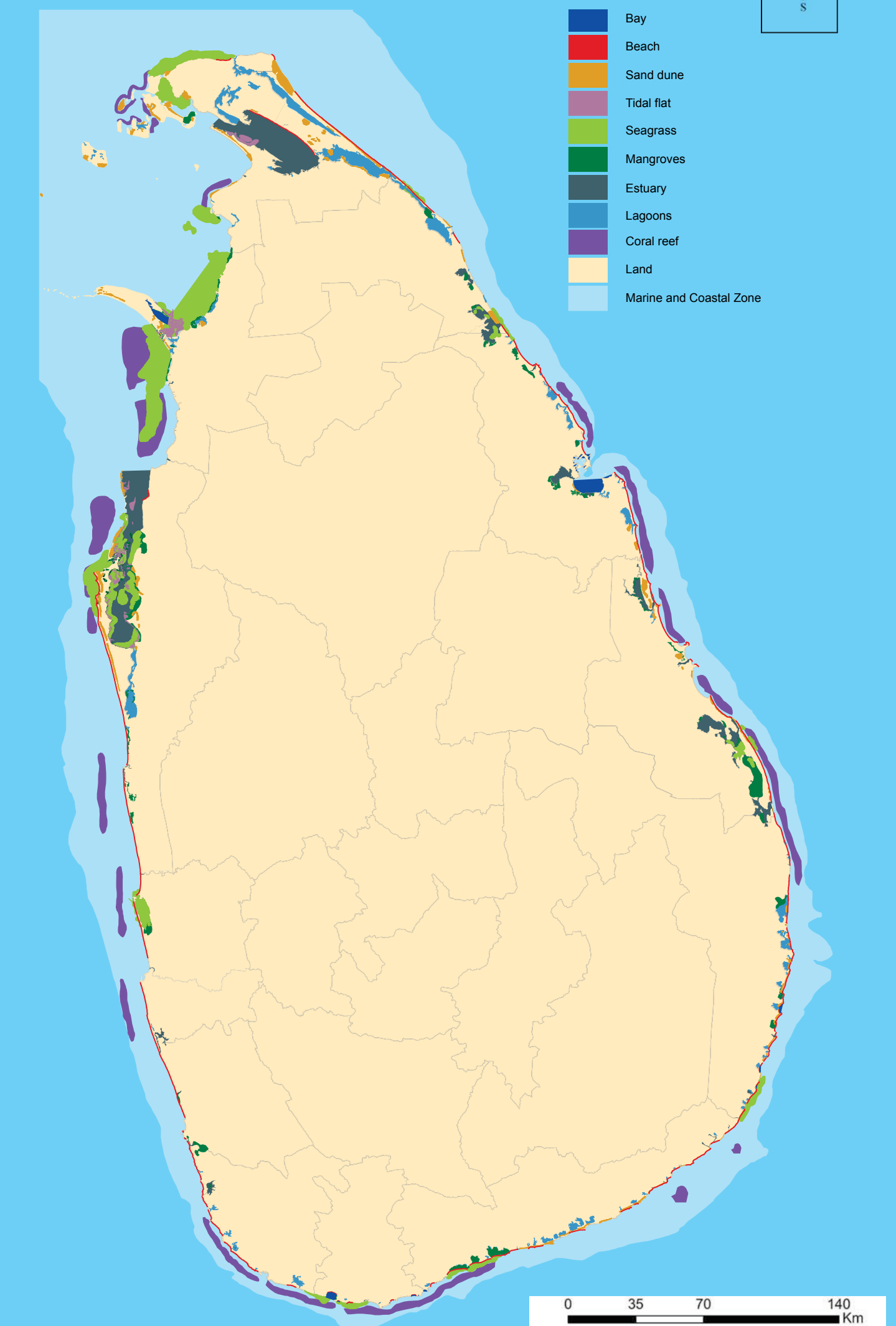
CORAL REEFS

Description	Over the ages, coral reefs are formed by the secretion of calcium carbonate of living organisms, namely, reef-building corals. Coralline algae provide the 'cement' that binds the building blocks of the reef.
Value	An extremely productive system that supports the livelihoods of many coastal communities. Serve as physical barriers against coastal hazards.
Threats	Habitat destruction; overexploitation; pollution and climate change.



SEAGRASS MEADOWS

Description	Seagrasses are flowering plants, which grow underwater, exclusively in coastal marine waters and coastal brackish water wetlands.
Value	Serve as nurseries and breeding grounds for many commercially important fish and shellfish. They are called 'biological sentinels' because they respond quickly to changes in the environment, indicating degradation.
Threats	Pollution, sedimentation and habitat destruction.



This poster presents a brief summary of Sri Lanka's coastal ecosystems and habitats. Coastal ecosystems contain an immense amount of biological resources and they provide very useful ecosystem services for the well-being and survival of humans, plants and animals. These interconnected and interdependent ecosystems require holistic management approaches with a high level of understanding. Key management considerations are potential anthropogenic threats such as overexploitation, habitat destruction, as well as land and marine pollution. In addition, human population pressure, unplanned coastal development and poor land use practices, as well as potential climate risks also need to be considered in managing coastal ecosystems and habitats.

Sources for the text: NSAP (2009). *Sri Lanka National Strategy and Action Plan*. Mangroves for the Future Programme, Colombo: IUCN Sri Lanka Country Office, xxxii + 219pp; Joseph, L. (2003). *National Report of Sri Lanka*. Unpublished report prepared for the BOBLME Programme. www.BOBLME.org..
Sources for the map: NSAP (2009). *Sri Lanka National Strategy and Action Plan*. Survey Department (2007). *The National Atlas of Sri Lanka*. Colombo: Government Press. 170 pp.; Jayasuriya, A. H. M., Kitchener, D. and Biradar, C. M. (2006). Portfolio of strategic conservation sites/ protected area Gap Analysis in Sri Lanka. Colombo: Ministry of Environment and Natural Resources and EML Consultants. 340pp; CRMP (undated) *Sri Lanka's coastal habitats: geographical location and extent*. **This map is meant only to be a guide and is not an exhaustive one.**

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