

TITLE	Sunday Observer	DATE	03/5/98	PAGE	33	KEY WORDS	Coastal Erosion
-------	-----------------	------	---------	------	----	-----------	-----------------

Environmental journalists from India, Sri Lanka, Bangladesh, Maldives meet in Kerala for workshop Sea erosion rising at an alarming rate causes grave concern: counter measures discussed

By E. Weerapperuma

Recent reports in the local press claimed that ten metres of the Sri Lanka map have been devoured by the sea during the first three months of this year alone. This stretch of land which had been washed away by sea erosion resulted in the loss of valuable coconut land thereby reducing the country's coconut yield, a major source of revenue for Sri Lanka.

According to these reports, Nainamadama West, Muttuwa, Kurusagahapaduwa and the Taldeka coast belt in the Provincial Secretariat Division of Wen-nappuwa have been eroded and the main victims were fishermen. All of them had lost their homes. Another 60 families also face the threat of losing their homes due to sea erosion.

Fisherfolk at Mahawaduwa, a hamlet off Paiyagala were driven to desperate straits last week following tidal waves and sea erosion which washed away their houses and robbed them of all their worldly possessions. It was a very strong tide that had caused this havoc and took away everything the people had in seconds.

The Coastal Conservation Department operating under the Fisheries and Aquatic Resources Ministry has identified Wellamankara, Lunawa, Moratuwella, Katukurunda, Paiyagala, Usmudullawa, Kalamulla, Seenigama, Hikkaduwa, Kinniya as areas most vulnerable to sea erosion.

Colombo Wellawatte-Mt.Lavinia, Akurala, Habaraduwa, Midigama in Weligama, Madihe in Matara and Rekawa (a major ground in coral mining) are also considered to be areas that come under the threat of sea erosion. In Puttalam the coastal strip comprising Kammalmoya, Wellamakara, Taldeka and Uthitiyawa have suffered sea erosion during the past four years, according to sources.

It has been estimated that along the coastal segment extending to about 685 km from Kalpitiya to the Yala National Park Bay about 175,000-285,000 sqm of coastal land are lost each year. From this about 95,000-160,000 sqm are lost annually from the 137 km coastal segment that extends from the mouth of the Kelani river (Colombo North) to Talawila (Kalpitiya Peninsula), the Coastal Conservation Department reported in 1990.

Erosion is the process by which material is removed from cliffs and beaches, causing the coastline to retreat inland. It is a natural process that occurs along many parts of the coast. The mud, sand and gravel that are removed by erosion are carried away along the coast by waves and currents, to be deposited on beaches and other landforms such as spits and barrier islands. Some of the material ends up on the seabed or in estuaries and bays, thereby resupplying and maintaining marshes.

Not new phenomenon

The damage to the beaches, coastal conservation and the human habitat along the coastal belt will also cause the loss of coral reefs, seagrass beds, mangroves, estuaries, lagoons and habitable marine waters. The loss of habitats will cause reduction of biodiversity in coastal and marine ecosystems, lower the productivity of fish and shrimp catch, reduce the diversity of mangrove cover, bring down bird population, degrade the general ecosystem according to environmentalists.

Sri Lanka is an island nation endowed with a rich variety of coastal and marine environs which are intrinsically linked with the history and economy of the country.

Beautiful sandy beaches and mangrove forested estuaries provide the basis for the marine fisheries industry, coastal tourism and a host of other productive benefits. (National Environmental Action Plan (1995-1998) of the Environment Ministry revised draft of 1994).

To this country sea erosion is not a new phenomenon. Our coastline is about 1,340 kilometres. Legends and narratives of coastal retreats go back to



Sea eroding into the railway line

over 2,000 years. We find references made to this phenomenon in the Mahavamsa. (Coastal Zone Management Plan of the Coast Conservation Department, 1990). However a retreating coastline was first viewed as a problem when a large number of people began settling down along the coastal belt during the early part of this century and concern for protection from sea erosion was shown in early 1920. The primary means of combating sea erosion at that time was the construction of revetments and groynes. By the 1970s the country realised that erosion control has to be a part of a broader program of coastal resource management.

Warning bells

The concept of coastal resource management is comparatively new and earlier the resource capacity of the beach was considered inexhaustible and no planning effort was made for controlling its use.

The uncontrolled use and abuse of resources over the years has resulted in major erosion problems and degradation of coastal wetlands and lagoonal areas, a report on "Shoreline Erosion in Sri Lanka Coastal Areas", prepared by the Coast Conservation Department in 1992, has revealed.

If the coastline is left unprotected, houses, hotels, businesses, public buildings and other coastal structures along the shore may be undermined by erosion. It may also undermine roads and contribute to the loss of degradation of valuable lands and disrupt fishing, navigation, recreation and other activities. At times, especially during severe storms—erosion can even damage wharfs, sea wall and breakwaters that were built to protect coastal communities. The first warning bells were sounded as far back as 1952 in respect of possible sea erosion in the South when the Queen Elizabeth Jetty was constructed in the Colombo harbour. It is claimed that a foreign engineer had predicted that if the jetty was built in Colombo harbour there would be sea erosion in the South. And we are witnessing this today. The end result of all this would be a loss of potential economic gains and the increase of coastal protection expenditure.

Sri Lanka is not the only country where land and sea erosion are major threats. Other countries in the region share the same problem perhaps to a greater degree.

Environment journalists from India, Sri Lanka,



Rock stones as barriers

Bangladesh and Maldives recently met in Thiruvananthapuram, Capital of Kerala State for a workshop on "Threats to Coastline" organised by the Forum of Environmental Journalists of India (FEJI) and funded by the World Bank. Sri Lanka was represented by the Sri Lanka Environmental Journalists Forum (SLEJF).

They were assisted by Chief News Editor Jose Panachipuram and sub editor, Mr. S. Harikrishan of the Malayala Manorama newspaper.

The journalists visited tourists areas in Trivandrum district, Kannur, Kottayam, Kumarakom and travelled in a motor boat over the backwaters of Kuttanad and visited Allepey meeting people and peoples organisations facing the threat of sea erosion in the state. They also had the opportunity to find out

the effects of empowerment of people and how best those methods could be applied to face the sea erosion threat.

Environment journalists of the Maldives and Bangladesh came out with the following facts: due to a climatic change a sea level rise by one meter would inundate 17 per cent of land of Bangladesh which is already a land scarce and a densely populated coastal country.

If the sea level rises one metre from the present level, the whole of the Maldives would go under water and would be completely wiped out from the face of the earth.

The views expressed by these journalists were supported by the Maldivian President Abdul Gayoom when he said that over 40 per cent of the inhabited islands of the Maldives were facing a serious erosion problem, which was physically threatening the settlements on them. "Erosion may be an early warning of an impending disaster. The average height of our islands is only one metre above sea level", he said addressing the opening session of the Governing Council of the Colombo-based South Asia Co-operative Environmental Programme, (SACEP), a press release from the Maldivian High Commission said.

President Gayoom who was in Sri Lanka last week made an appeal to the international community to help his country to overcome the environmental problems facing the people of his Indian Ocean archipelago, the press release added.

Most of the environment journalists from the

small. According to analysts industrialised countries are the major culprits for this phenomenon.

Zonification of coasts

According to media reports, there is a need for zonification of coasts in coastal states like Kerala and Karnataka. A report has been prepared by the Centre for Earth Science Studies (CESS). The Coastal Regulation Zone (CRZ) wants to have a 500 metre zone declared. The Kerala State Government has however suggested that the buffer area should be reduced to 50 metres.

One million of Kerala people are fishermen and 2.5 lakhs of them go fishing daily. Another two lakhs of people are involved in allied jobs.

The Chief Minister was of the view that the CRZ norms could be applied only to coastal areas and not the banks of Kerala rivers and backwaters.

Although the situation in Sri Lanka is not so serious it could lead to such a situation eventually if timely action is not taken to control sea pollution and erosion.

The sea around Sri Lanka and the globe is polluted at an alarming rate with plastic and polythene, organic and industrial effluence. The ocean needs to be kept clean as minute algae plant found in the ocean generate 80 percent of oxygen given out into the atmosphere.

The prediction

The prediction is that the sea level will start to rise at a faster rate over the next century, and that many areas of the United States—and the rest of the world—will be subjected to increased risk of coastal erosion.

Prevention of coast erosion is a pure engineering activity whatever methods are used. The best approach would be the combination of appropriate methods in properly designed schemes with the aim of developing a sandy beach and maintaining it under normal wave conditions.

Mr. R. Radhakrishnan, President of a leading NGO endorsed this view when he said that sea erosion was a major problem in Kerala where coastal area was 590 kilo metres and 470 km was under threat of erosion.

The 'Green Revolution' introduced after independence had "killed the area" by reclaiming the land without planning. A proposal to construct a bridge, they found to be directly affecting the fishing industry, he said.

The Marine Regulation Act of 1980 in Kerala was intended for that purpose. This Act has demarcated the sea and identified an exclusive area where the traditional way of fishing could be allowed and directing the mechanised boats for deep sea fishing.

In Sri Lanka steps are being taken to educate the public on this issue and the Coastal Conservation Department in collaboration with the Dehiwala-Galkissa Municipal Council recently launched a campaign to educate the school children over the dangers of sea erosion hoping that they would be the best agents to convey this important message to their elders.

Beach parks concept

The concept of introducing 'beach parks' while ejecting the beach squatters would also influence the people to stop coral mining which causes sea erosion, the officials of the department believe.

The Government has passed the necessary laws to prevent wanton destruction of sea coral that causes sea erosion. The Coast Conservation Act of 1981 is one of them.

The enforcement of law has to be stronger to prevent a possible calamity. This Act prohibits mining, burning or possession of coral or its transport. Setting up of lime kilns along the coastal strip is prohibited.

Those who violate the laws and involve themselves in mining corals would be dealt with severely and their goods and equipment would be confiscated, under the Act.