



Coastal Erosion in Tanga

Rahma Ally, Sharifa Mote and Hellen Herman



Introduction:

Coastal erosion is one of the major coastal problems currently facing Tanzania. Several factors, including sea level rise, geology, and rapid coastal population growth accompanied by rapid increase of human activities that interfere with natural processes, have been linked to the problem. One of the human activities that have been well linked to the problem of coastal erosion is illegal sand mining along beaches, coastal streams/rivers, and other restricted areas. This causes localized accelerated/ severe coastal erosion and enormous environmental degradation and threat to coastal properties. Illegal sand mining is presently a big industry in Tanzania, employing many youths, and has become a social, economical, and environmental problem. Thus, it is a sensitive issue. The problem of illegal sand mining in Tanzania is revisited, and possible measures to control it are proposed.

We are going to make analysis on Tanga coastal belt especially on the damage of Mangroves and coral reefs, and steps towards overcoming the threats caused by the damage. This project aimed at reducing if not eliminating the alarming problem of mangroves and coral reefs destructions along Tanga coastal area. At the end of our project, we hope that, the situation is going to be rectified and overcoming the threats caused by damage.

Coastal erosion in Tanzania has become a serious problem dating back to the early 1970s (Beach Erosion Monitoring Committee, 1987). Usually concern over beach erosion problems has been raised in areas or cases where investments placed at the shoreline were threatened. Much of the coastline of Tanzania is composed of quaternary formations, mainly unconsolidated raised beach sands, raised reef limestone and low-lying mangrove-covered sands. With the exception of the mangrove areas, all the rest are susceptible to erosion. Owing to demand pressure on mangrove products, most of the mangrove stands have decreased in size as compared to the recent past (Shunula, 1990). The Tanzania shoreline, like most of the East African region, is flanked seawards by a fringing reef which at localities stands exposed or just below sea surface at low tide. The tidal range of up to 4m in this region means erosion of the high beach would only be possible at high water springs superimposed by strong wave conditions. The region is swept by the monsoons which blow from the northeast during the southern hemisphere summer and from the southeast during the northern summer (Newell, 1957). The direction of the longshore currents follow the wind reversals.

<p>THE OLD TANGA SECONDARY SCHOOL P.O. BOX 1097 TANGA, TANZANIA.</p> <p>DEFINITION: LOCAL destruction of mangroves and coastal habitats. These coastal habitats are:</p> <p>Mangrove forest: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>Apr 19 - 24 <input type="checkbox"/> 25 - 30 <input type="checkbox"/> 01 - 06 <input type="checkbox"/></p> <p>1. Do you think people take a boat mangrove and coastal habitats destruction?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>2. Why do you think people take a boat mangrove forest?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>3. What activities do they do that cause destruction of mangrove forest?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>4. What do you think are the activities that are harmful to destruction mangrove forest and coastal habitats?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>5. What are effects do you think caused by mangrove destruction?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>6. What do you think local people should do to prevent and protect mangrove forest and coastal habitats?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>7. In what way do you think local people should be educated about mangrove forest and coastal habitats?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>8. What do you think government should do to protect mangrove forest and coastal habitats?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>	<p>BENEFITS OF MANAGING MANGROVES The values derived from mangroves have been divided into three categories:</p> <p>1. LOCAL VALUES: These are values which directly benefit the local community. Mangrove forest:</p> <ul style="list-style-type: none"> Support beekeeping practices. <p>Other local values:</p> <ul style="list-style-type: none"> Protection of the coastline from erosion. Prevention of coastal property by absorbing pollutants from urban and coastal areas. Prevention of soil salinity by trapping of sediments. Protection from the wind (provided by vegetation of mangrove forest). Prevention of local climate. Artisanal fishery. Wildlife and bird nesting. <p>Mangroves are the habitat for a variety of invertebrates such as crabs and mollusks which are very important for providing proteins to the diet of villagers.</p> <p>2. NATIONAL VALUE: Export of some products from the mangroves e.g. mangrove poles, prawns.</p> <p>Mangrove environment support tourism activities.</p> <p>3. GLOBAL VALUES: Beyond the necessary amount of CO₂ in the atmosphere which contributes to global warming and associated rise in temperature (Greenhouse effect).</p>	<p>Coastal erosion in Tanzania Erosion breaching Beach Corner Hotel, Tanzania.</p>
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RESULTS:

According to the methods used in this project that is field trip, Interview, and Questionnaires, we detected high extent of destruction of mangrove forests along local villages at Tanga coastal areas especially at Kisosora, Chumvini and Msakangoto Sahare. The destructions or damage were due different activities, such as boat making materials, building house materials, support beekeeping practices and source of fuel in salt making processes.

EFFECTS:

- Coastal belt erosion
- Loss of marine biodiversity
- Destruction of natural marine habitat which may led to loss of tourism sites
- Destruction of breeding sites / place of some marine organisms, such as crabs, prawns and mollusks
- Causes climatic changes, which may lead to hazards such as cyclones, tsunami etc
- Destruction of marine ecology.



RECOMMENDATIONS

It is suggested that, education should be provided to the coastal people via mass media like Tanga TV, Mwambao FM, Breeze FM ETC. Environmental by Laws towards protection and conservations especially at the coastal belt should be promoted. Benefits of managing mangrove forests should be enlighten to the local people along the coastal belt.

Government should provide alternative source of fuel to the salt making processes rather than using mangroves forests.

Conclusions:

- In our project, we have come out with the following conclusions, Strict laws towards mangroves forests and environment in general should be emphasized.
- Local authorities should establish by laws which emphasizes the education on the merits of environmental protection and conservation especially at the coastal belt.
- Individuals should be incorporated and sensitized in mangroves and coral reefs protections and conservations.

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Further information:

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