

Thesis Title :

Reuse The Ceramic Glazed Tile Waste For The Development Of Marine Concrete Modular

Abstract :

Marine ecosystems and the freshwater ecosystems are the two main types of the Earth's aquatic ecosystems. Marine ecosystems include nearshore systems, such as the salt marshes, mudflats, seagrass meadows, mangroves, rocky intertidal systems, and coral reefs. Marine systems regulate the global climate contribute to the water cycle, maintain biodiversity, provide food and energy resources, and create opportunities for recreation and tourism. Corals are often mistaken as rocks or aquatic plants. However, unlike rocks, corals are alive and unlike plants, corals do not make their food. Corals are in fact animals. The branch or mound that we often call "a coral " is made up of thousands of tiny animals called polyps which are relatives of sea anemones.

But Coral reefs are dying around the world. Damaging activities include coral mining, pollution (organic and non-organic), overfishing, blast fishing, the digging of canals and access into islands and bays. Climate change, such as warming temperatures, causes coral bleaching, past 30 years Sri Lankan tourism has been focused on the southern area rather than the Northern side.

Therefore, the physical damage to the Southern area has been higher. This has affected negatively on the corals too. The coral cover on the southern beaches has been deteriorating at a growing speed The corals need ideal conditions and a very long time for their regrowth; but this has not been provided for the corals on the South coast from 1983 until now.

The recent boom in the construction industry in Sri Lanka has created a huge demand for the tile industry. The other issue is ceramic tile waste and its disposables. Therefore, the capacity of tile factories has increased and the flow of imported tiles has increased rapidly, and tile manufacturing plants have been operating all year. This causes producing a wide variety of waste during their manufacturing process. Tile pieces and tile squares that cannot be used during this after-killing process are disposed of as tile waste, resulting in approximately 20 tons of garbage being generated daily in the country. In Sri Lanka, ceramic waste has been very little focused. But it is becoming an environmental issue that has a long-term impact because ceramic stocks in the world can survive over 2000 years or more without any decay. The tile waste disposal method is very harmful to the environment.