

Enhancing resilience of the coastline through removing stress, rehabilitation and mangrove planting

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Abstract

This article evaluates the results of mangrove planting on newly deposited mudbank as alternative option for coastal protection. On approximately 2 ha mangrove juveniles of the Black mangrove (*Avicennia germinans L*) have been planted. The planting location has been chosen according to a certain criteria, one of which is that the natural regeneration at the selected location and for the given period of time would not be take place. In this respect a new set of criteria has been worked out for mangrove juveniles to be planted on the selected location. Monitoring has shown that the survival rate of these plants depends of many factors occurring under certain conditions and in certain period of the year. One of the parameter affecting the growth of the mangrove regards the soil forming process on the new formed mudbank. Formed gullies on the mudbank combined with waves during spring tide sweep plants of the first line away, whilst during the dry periods high salinity may become the major dead cause of the plants. These sets of criteria if applied during the following planting succession it believed that the dead rate of the juveniles will drop drastically. In this respect action of human being can enhance the resilience of the coast and hence increase their own protection from the rising sea level and flooding.

Keywords

mudbank, planting technique, regeneration, monitoring, coastline protection