

**National Institute of Ocean Technology Deploying Geo-Synthetic Tube (Dyke)
Technology to Eliminate Coastal Beach Erosion and Restoration**

National Institute of Ocean Technology (NIOT) an autonomous society under the Ministry of Earth Sciences, Government of India has successfully deployed the geo-synthetic tube (dyke) to protect beaches from coastal erosion. This is a soft engineering technique in contrast to the hard engineering options like sea-wall. Due to the impact of severe storms, heavy damages occur to the coastal beaches. Field demonstration of submerged dyke installation was completed at Kadalur (KPK) fishing villages in Tamil Nadu and performance monitoring is being carried out.

Design of shore protection schemes for Bommayapalayam and Mahabalipuram, oceanographic observations at Kadalur Periyakuppam, Chennai coast and Vizhinjam were also undertaken upon the request by the stakeholders during this year with the inauguration of restored beach at Kadalur villages to the nation by Dr. Harsh Vardhan in the month of January 2019.



The Kadalur fishing village near Kalkokkam and Pondicherry showcased innovative technology in an unconventional and site-specific way to eliminate erosion and new beaches have become ashore and the economy is flourishing there.

The National Institute of Ocean Technology held a roundtable discussion on Shore protection and Remediation using environmentally friendly alternative designs to disseminate experience, knowledge gain through design, implementation and performance monitoring of shore protection measures at two locations impacted by natural and man-made causes. NIOT officials said that with the help of geo-synthetic tubes (dyke), the beach areas started to grow slowly and fishermen are able to land their small boats on the beach and carry out activities such as net mending, fish drying, and net repairs. Likewise significant growth of mollusks, providing a substrate for the development of fisheries, attracted a wide variety of fish, shrimp, and crabs.

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