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Guest Speech

Long-term coastal current observations in southern Sri Lanka

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Abstract

This study outlines a comprehensive plan to monitor coastal currents variations in Southern Sri Lanka. Recognizing the region's critical role in the Northern Indian Ocean's salinity balance and its susceptibility to climate change, the project aims to monitor coastal currents variations on seasonal to interannual timescale. Several fixed observation sections, each approximately 20 kilometers in length covering the width of coastal currents, are to be deployed in the west, south, and east coasts of Sri Lanka. The unmanned surface vessel (USV) is used to detect the coast currents' variations from surface to bottom repeatedly on above fixed observations, better performing once per season. Simultaneously, CTD profiles, and automatic weather stations will be deployed to get more information of current dynamics and atmospheric conditions. The observation plan will contribute to a better understanding of coastal processes, supporting marine ecosystem management and enhance disaster prevention in the face of climate change.

Keywords

Long-term observation, coastal waters, currents, unmanned surface vessel, Sri Lanka

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