

## Sea level monitoring in Mozambique (conference paper)

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Observing changes in the rise of relative sea level has resulted from the balance between the sea level rise due to the global warming of the planet, and the vertical displacements of the coast due to geological movements. The main objective of this paper is to outsource information about sea level monitoring in Mozambique, as part of a common global effort aiming to collect and analyse data that can help in understanding physical processes involving ocean basins or oceans as a whole. Tidal stations at Maputo (lat. 25° 58.5' S, lon. 32° 34.2' E), Beira (lat. 19° 49.4' S, lon. 34° 50.0' E), Quelimane (lat. 18° 00.3' S lon. 36° 58.2' E), Nacala (lat. 14° 27.8' S, lon. 40° 40.8' E), Inhambane (lat. 23° 52.0' S, lon. 35° 22.6' E) Pemba (lat. 12° 58.0' S, long. 40° 29.3' E) has provided an important contribution in operational and research applications, being the last two stations, part of a global sea level observing network (GLOSS network).

Consistent achievements as to the investigation of the sea level trends in the coast of Mozambique do not show up with evidence as yet, relying in the need for longer and uninterrupted time series, and subject to the application of improved quality control techniques. Pre-processing techniques were therefore developed in the Department of Oceanography of the national Institute of Hydrography and Navigation envisaging to exceed observed diversions in heights (use of cubic and lagrangian polynomials) and diversions in phase (use of Spline function). The effectiveness of these techniques is shown in some of the processed sea level plots presented on the panel.