Analysis of extreme winds that occur in the Mozambique channel towards the coast of Mozambique

To analyze the regime of the extreme event (extreme winds) that occur in the Mozambique channel, data from reanalysis of wind and atmospheric pressure at sea level made available by C-RISe and Copernicus, respectively, were used. The reanalysis data were acquired based on monthly and annual averages and showed consistency in representing the variability of wind and pressure in the Mozambique Channel, taking into account that little attention in the literature was given to the analysis of extreme winds that reach the coast. Mozambican. The present work aimed to analyze extreme winds that occur in the Mozambique channel towards the coast of Mozambique. The analysis covered a period of 11 years from 2008 to 2018. The results show waves of extreme wind values during the years under analysis with around 95km h-1 of speed, highlighting the year 2008, with the seasonal maximum in summer and to the south, with higher values (105km h-1) for the month of January in 2012. Extreme winds are more frequent in the rainy summer. In effect, the variation in atmospheric pressure at sea level for situations without cyclones (Jokwe, Funso and Dineo) increases in latitudes from the northern sub-region with 1009 hPa to the southern sub-region with 1011 hPa, and the winds tend to flow with speed values of 80km h-1 and greater distribution in the southern sub-region, but for situations in which cyclones occur, the variation in pressure in latitude showed values lower than 1006 hPa in the central sub-regions, increasing towards the northern sub-regions and south, with high wind speed values of 100 km h-1, justified by the Beautfort wind scale, the pressure varied from the high pressure region (Mozambique Channel) to the low pressure region (Mozambican coast) changing the course wind, which can cause changes in coastal morphodynamics depending on its sedimentary composition.

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