



## **Two devastating tropical cyclones in Mozambique twenty years apart: a comparison.**

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On 15 March 2019 tropical cyclone Idai invaded Mozambique close to the city of Beira. The effects of this cyclone were devastating through central Mozambique, eastern Zimbabwe and Malawi as heavy rainfall and flooding occurred over vast areas. At least 1000 people lost their lives and the damage to infrastructure totaled US\$1 billion. Some 20-years ago in February 2000 tropical cyclone Eline made a landfall in Mozambique in approximately the same location. The devastation caused by Eline was similar to Idai but the heavy rainfall and flooding extended further west into southern Africa as parts of Botswana and South-Africa were also affected. The life cycle of the two storms was very different. Idai started as a tropical storm over Mozambique which moved into the Mozambique Channel where it deepened into an intense tropical cyclone with sustained winds of 175-195 km/h. It then moved slowly westwards again to invade Mozambique as a tropical cyclone. Eline started as tropical cyclone Leon, first named on 1 February in the eastern Indian Ocean near Australia. This storm moved steadily westward, was renamed to Eline and weakened slightly as it moved over Madagascar. It re-developed over the Mozambique Channel and made a landfall near Beira on 22 February. This paper will detail the differences in development and movement between the 2 storms but will show the similarity to the damage to infrastructure over Mozambique. Mozambique has a particularly long coastline of approximately 2500 kms. It also has low elevations, especially in the south which makes it vulnerable to flooding and storm surges. This paper will also detail expected changes in tropical storms over Mozambique in a future climate.