Climatology

Tropical Cyclones in the Southwest Indian Ocean

11%

Tropical depressions, storms and cyclones are features of the world's oceans and about 11% of the world's tropical storms and cyclones occur in the Southwest Indian Ocean.

Ingredients for tropical cyclogenesis

- Ocean temperatures >26˚C to a depth of about 50 metres
- Convergence of near surface winds
- Low wind shear, as strong wind shear disrupts the storm structure
- At least 5˚ latitude from the equator

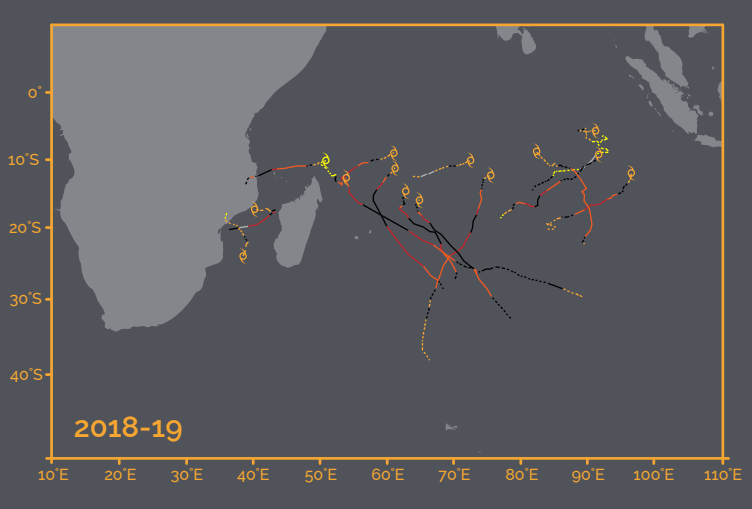
Of the 94 storms between 2010 & 2020, 60% at some point in their lifetime reached tropical cyclone strength or higher, and 22% were very intense cyclones.

Regional Specialised Meteorological Centre

- Issuing tropical cyclone advisories
- Southern Indian Ocean W of 90˚E and N of 40˚S

Tropical cyclones are of concern for potential damage, but also contribute significantly to annual rainfall over southeastern Africa, up to 10-20% over Mozambique, 20-30% over Madagascar and 5-10% over the southern Seychelles.

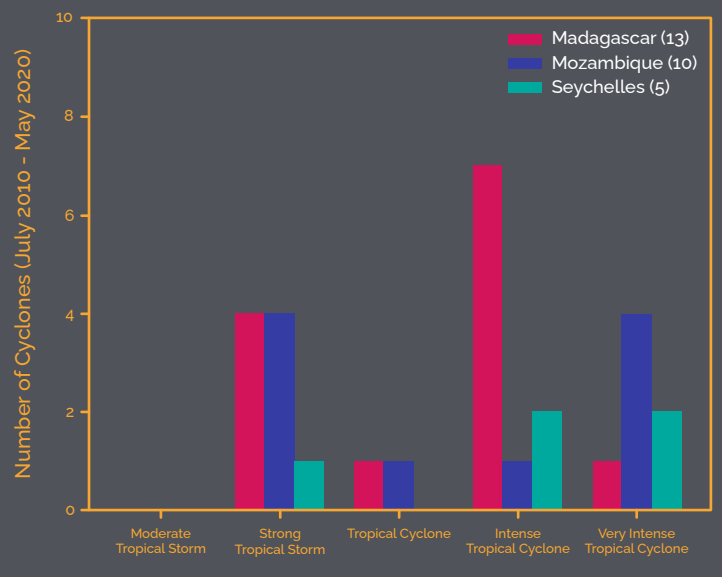
The cyclone season occurs November to April, and between **5 & 15** form in any year. Tropical cyclones can occur in any month, and have been recorded as early as July and as late as June.

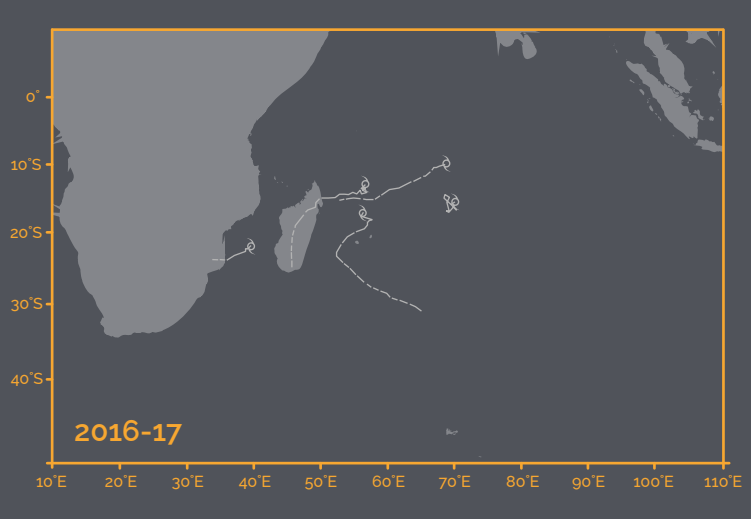


2018-19 season

The 2018-2019 tropical cyclone season was particularly active. Idai and Kenneth both made landfall in Mozambique, the first time two intense tropical cyclones did so in one season. Idai had a meandering track and made landfall twice. Kenneth was the most northerly TC to make landfall on the east African coastline. The MJO was active during this season and likely influenced the tropical cyclones.

Of the 94 storms, 28 impacted Madagascar, Mozambique or the Seychelles, 17 of which were intense or very intense tropical cyclones.





Something to think about:

Why do you think 2016-17 might have been the season with the fewest tropical cyclones in the Southwest Indian Ocean?

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