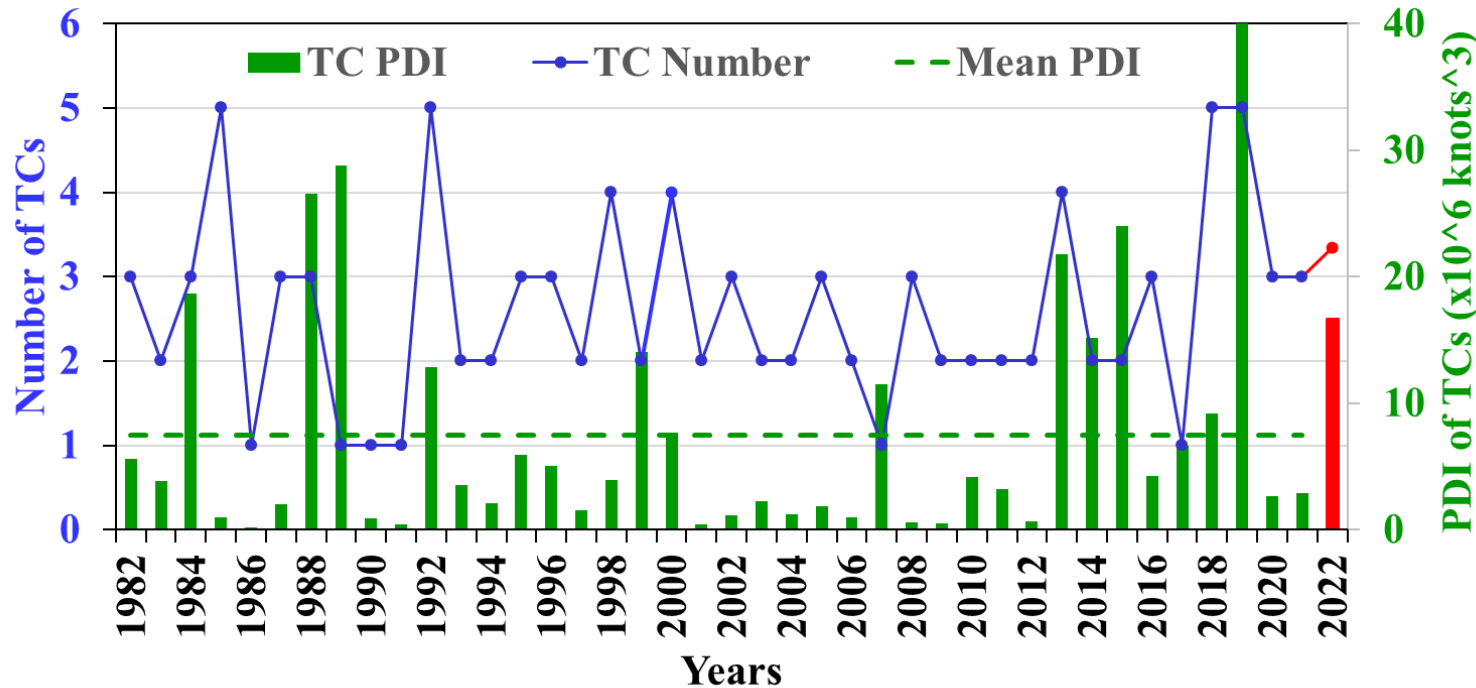


# Seasonal Prediction of Tropical Cyclones in the North Indian Ocean

In the year 2022 during October-December months there is a possibility of formation of **three** Tropical cyclones in the North Indian Ocean with power dissipation index (PDI) of  **$17 \times 10^6 \text{ knots}^3$** .

Tropical cyclone activity in the North Indian Ocean during post monsoon season



Post monsoon season of the year 2022 may experience **three tropical cyclones** with power dissipation index of  **$\sim 17 \times 10^6 \text{ knots}^3$** .

$$PDI = \sum_{i=0}^N \sum_{j=0}^T V_{max}^3$$

Where  $V_{max}$  is TC maximum sustained wind speed. 'T' is lifetime of TC at 6-h increments and 'N' is a number of TCs in a year

(PDI is a function of the intensity, lifetime and annual frequency of TCs)

Figure: Observed number (blue lines) and Power dissipation index (green stacks) of TCs in NIO during post monsoon years 1982-2021. The 40 years mean PDI value ( $7.49 \times 10^6 \text{ knots}^3$ ) is shown in green dashed line. The predicted number of TC (3.34) and its PDI ( $16.69 \times 10^6 \text{ knots}^3$ ) is shown in the red colour.