



***A comparative analysis of algal bloom-events in the coastal
Waters of South China and India***

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Introduction

Economic, environmental and demographic pressures converge sharply in coastal regions, environmental degradation is intensifying due to the degradation ranges from the loss of biodiversity to the ecosystem collapse. Harmful Algal Blooms (HAB) are often unpredictable and have implications that extend beyond isolated locations.

Study areas

The present paper is to analyze algal bloom situation in the coastal waters of India and South China (Fig 1) for a 25 year period from 1980 to 2004. Satellite data were analyzed to give oceanic information over the two regions.

Results

Data shows that frequent algal blooms areas include Pearl River Estuary, the Manila Bay, the Masinloc Bay, and the western coast of Sabah in the South China Sea (SCS), include the coastal waters of the Arabian Sea, Bay of Bengal in the Indian Ocean (IO)(Fig. 1). The occurrence frequency, intensity and severity of algal blooms are higher in SCS than that in the IO. In the SCS, algal blooms occur repeatedly in April, June and July, while dominant species are *Pyrodinium bahamense* and *Noctiluca.Scintillans*. In the IO, algal blooms are frequent in March, May and June, while dominant species are *Trichodesmium* and *Noctiluca.Scintillans* (Table 1) . Those differences between the two regions may due to regional conditions, like monsoon, agriculture, run-off, and climatic variations. Sea surface temperature are lower in SCS (20°–29°C) than in IO (27°–31°C) and wind undergoes seasonal reversal at both basins (Fig. 2).

Conclusion

The present study shows seasonal, annual variations of algal blooms and causative species are different and few common species along SCS and IO. Algal blooms events were due to input factors like eutrophication, wind current temperature monsoon winds and upwelling. This study suggests that algal bloom outbreaks are far more recurrent in recent times and impose often serious barrier