

Harmful algal toxic blooms affect socio-economic systems and human health

The National Center for Coastal Research (NCCR) and the National Institute of Ocean Technology (NIOT), Ministry of Earth Sciences published an article on the influence of upwelling on the phytoplankton community during the upwelling-relaxation period in the southeastern Arabian Sea.

The study suggests that anthropologies combined with the effects of global warming and the changing climate on coastal upwelling systems are increasing the incidence of harmful algal toxic blooms (HABs). Increased formation of HABs in coastal regions endangers fish stocks such as sardines, which have an important role in the ecosystems that significantly influence socio-economic systems and human health.

Dinoflagellates are the important components of the phytoplankton community and they contribute to the formation of HABs. The effect of global warming and changing climate through an increase in temperature and stratification in salinity may lead to a shift from diatom to dinoflagellates and an increase in the production of HABs. The HABs influence almost every coastal nation due to its input of surplus nutrients from river runoff. Thus, the monitoring programme for the HABs would be useful to develop strategies to reduce the economic losses from ecosystems.