

CORRESPONDENCE

cycle to the favourable summers of 2–5 successive years. How such species will respond to longer and warmer spring needs to be investigated? Some deciduous trees may leaf earlier and produce flowers in advance than before. This may also result in the appearance of predators who feed on leaves of these trees and pollinators of the flowers earlier than expected. The different responses may disrupt the complex linkages between different trophic levels in nature and disturb the ecological balance. An understanding of how vegetation responded to past climate is needed for predictions of response of plants to future climate change. We urgently need to develop a scientific database on chronology of major phenological events for Indian flora. This can be done with the help of the large number of botanists in the university departments and colleges, who will

generate data at the regional level through a close networking. The Ministry of Environment and Forests is currently running some projects in this area. It is also important for funding agencies to invest grants in this thrust area, so that the effect of predicted climate change on ecosystems and species is studied at regional and local levels, and steps for possible mitigation are planned in advance.

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Need for reassessment in the post-tsunami scenario

The large tsunami (26 December 2004) triggered by the Sumatra earthquake has warned the earth sciences community to relook into the morphology, structure and tectonics of Andamans and continental margin of Tamil Nadu. Earlier geophysical studies related to northern offshore Cauvery basin, Tamil Nadu between Vedaranyam and Pondicherry, indicated existence of two major fault lineaments; one off Pondicherry (12°N) and the other off Nagapattinam (10°45'N) trending E–W¹. Magnetic analysis indicates that the E–W trending lineament inferred over continental margin off Nagapattinam can be spatially correlated to lineament associated with down-faulted basement from earlier aeromagnetic studies. Two fault zones have been demarcated from gravity studies². One of them coincides with the epicentre of Pondicherry earthquake of September 2001. Tamil Nadu,

in particular Nagapattinam, has experienced major wrath of the tsunami. Various organizations have carried out studies in the aftermath of the tsunami in Andamans and in Tamil Nadu. However, in view of the proximity of southern Tamil Nadu, being almost perpendicular to the line of rupture of the seismically active Andamans, it is of paramount importance to carry out geophysical studies over coastal and shelf regions to analyse the tectonic changes leading to demarcation of new lineament patterns of Tamil Nadu margin and contiguous land part in the post-tsunami scenario. This can be carried out in two stages. (i) Bathymetry, magnetic, single and multi-channel seismic reflection studies between 10°N and 12°30'S, and 80° and 82°E, in order to compare the earlier results (pre-tsunami) to note deviations in lineament pattern. (ii) Geophysical studies over coastal

regions of Tamil Nadu for correlating with offshore results for better understanding of the land–ocean tectonics.

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