

## **Dr. Shailesh Nayak**



Shailesh Nayak is Director, National Institute of Advanced Studies (NIAS), Bengaluru, and Chancellor, TERI School of Advanced Studies (TER-SAS), New Delhi. He specialises in the field of Earth System Science and Sustainability. Between 1978 and 2006, he was with ISRO's Space Application Centre in various capacities. He has held several other positions viz. Secretary to Government of India, Ministry of Earth Sciences; Chairman, Earth Commission; and Director, Indian National Centre for Ocean Information Centre.

Dr Nayak has made unparalleled and substantive contributions towards application of Geophysical Methods for Societal benefits. He set up a state-of-the-art Tsunami Early Warning Centre (TEWC), and conceptualised, installed and operationalised the Tsunami Early Warning system for India. This has provided India a unique capability that analyses seismic and sea-level data, computes earthquake parameters, selects best possible scenarios, generates and disseminates hazard advisory through web- and location-based services to all stakeholders in near-real-time without any manual intervention. He has pioneered techniques/algorithms for the use of satellite data in understanding coastal and ocean resources and processes. A very unique application was developed under his leadership to locate potential fishing zones in the sea. This application uses satellite-based sea surface temperature as an indicator of the environment and ocean colour or chlorophyll as an indicator of food. Dr Nayak's research and innovative activities have brought India to the forefront in the use of space and GIS technologies for the coastal/marine processes and hazards mitigation.

Dr Nayak's R&D projects and programmes have focused on multidisciplinary research output towards sustainable development, and conceptualising and developing a policy framework for a 'Blue Economy'. At NIAS, he has introduced programmes on 'Science Diplomacy', 'Science Communications' and 'Digital Humanities'. During his tenure as Secretary, Ministry of Earth Sciences: a Centre for Climate Change Research at Pune, a National Centre for Seismology, at New Delhi, a Coastal Research Centre at Chennai, and a Training School for Climate and Earth System at Chennai were established. He had also prepared a National Vision document on the role of the Earth Sciences to address important scientific issues.

Dr Nayak's current assignments are: Chair, Research Advisory Committee, ESSO-National Centre for Polar and Ocean Research; Chair, Research Advisory Committee, Wadia Institute of Himalayan Geology, Dehradun; Chair, Project Advisory Committee, Koyna Deep Borehole Research, Ministry of Earth Sciences; Member, Governing Council, The Energy Research Institute, Delhi; Member, Governing Board, Indian Council of World Affairs, New Delhi; Member, Governing Board, Research and Information System for Developing Countries, New Delhi; and Member, Board of Governors, Foundation for Ecological Security, Anand. His vast bibliography includes research papers, scientific reviews, articles published in seminar symposia and conference volumes, chapters in books. He has authored and edited several books.