

# Ministry of Earth Sciences celebrates 17th foundation day

## Union Minister Shri Kiren Rijiju launches several service-centric initiatives to mark the occasion

Posted On: 27 JUL 2023 7:39PM by PIB Delhi

The Ministry of Earth Sciences (MoES) celebrated its 17th foundation day at its Prithvi Bhavan headquarters in New Delhi today. The Union Minister, MoES, Shri Kiren Rijiju, launched several citizen-centric initiatives to mark this occasion. The Honorable Union Minister lauded the ministry's efforts and highlighted that "our Hon'ble PM envisions the country to become a developed nation by 2047. To fulfil this vision, every citizen and institution, including our ministry, will have to contribute substantially in a focused and targeted manner. Several possibilities lie ahead, and we must rise to the occasion".

The MoES is mandated to provide services for weather and climate, ocean and coastal state, hydrology, seismology, and natural hazards; to explore and harness marine living and non-living resources in a sustainable manner for the country; to explore the three poles of the Earth (Arctic, Antarctic and Himalayas); and explore and harness resources of the deep oceans. The MoES officially came into being in 2008 by re-organising the then Ministry of Ocean Development, formerly known as the Department of Ocean Development (set up in 1981). Highlighting the role of MoES and lauding the scientists, Dr M Ravichandran, Secretary, MoES, said, "We must remain steadfast in our pursuit of knowledge, innovation and sustainability. The challenges ahead of us are powerful and immense; climate change, natural disasters, marine pollution, and depleting resources, to name a few. However, I am confident that with our strong foundation, energetic youth, dedicated research and spirit of collaboration and cooperation, we will continue to make significant strides in addressing these challenges and securing a better future for our planet".

The MoES foundation day celebrations included popular science talks by Directors of MoES institutes, a virtual interaction of young students with scientists posted at India's Antarctic station Bharati, and the launch of multiple citizen-centric initiatives.

The directors of MoES institutes (National Institute of Ocean Technology, Indian Institute of Tropical Meteorology, National Centre for Polar and Ocean Research, and Indian National Centre for Ocean Information Services) gave popular science lectures elaborating the ministry's vision and activities, especially under the Deep Ocean Mission, Monsoon Mission, Arctic exploration and collaborative research, and deep-drilling to understand reservoir-triggered earthquakes by the Borehole Geophysics Research Laboratory (BGRL).

The talks gave the audience a glimpse of India's prowess in developing state-of-the-art technologies for exploring, studying, and harnessing deep-sea resources; in improving the weather and climate observation and forecasting capability; in strengthening the country's presence at the Earth's poles; and working in new frontiers of geophysics.

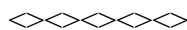
The Union Minister for MoES Shri Kiren Rijiju launched the following initiatives to mark the 17<sup>th</sup> foundation day celebrations of MoES.

- a. Four new meteorological centres were inaugurated in Imphal (Manipur), Kohima (Nagaland), Aizawl (Mizoram), and Port Blair (Andaman and Nicobar). A meteorological centre is a specialised division for observing and disseminating information, advisories, and warnings about regional weather. The new meteorological centres will make weather-related services better and more useful in these regions. With these new four additions, the country's total number of meteorological centres has risen to 26.
- b. A new website for disseminating information was released, including alerts for block-level weather forecasts and advisories to benefit our agricultural community, including farmers, fisherfolk, and livestock rearers. The website will be accessible at <https://www.greenalerts.in/>. The weather-related information shall be disseminated in English and Hindi and in regional languages in the future. The India Meteorological Department (IMD), a sub-ordinate office of the Ministry of Earth Sciences, will be collaborating with the Ministry of Panchayati Raj to share the real-time weather forecasts disseminated through this website with Heads and Members of the Gram Panchayats through SMS or WhatsApp. This is being done to ensure that weather-related services of the MoES effectively reach the last-mile user.
- c. A Rainfall Atlas of India from 1971 to 2020 was released. It is based on the rainfall data of 4389 rain-gauges stations spread across India with 110 maps of various rainfall variables. The atlas prepared by IMD would be a valuable resource for various user agencies, researchers, students and operational meteorologists.
- d. A documentary on 'Cyclone Warning and Management in India: An End to End System' was released. The film showcases the scientific capability of IMD in providing timely alerts for natural disasters such as cyclones, close collaboration with disaster-management authorities, and using the latest modes of data assimilation, analysis, and communication to save lives and minimise loss of infrastructure. The movie walks the audience through the case studies of the management of cyclones Tauktae (in 2021) and Mocha (in 2023). It will be available on the MoES YouTube channel.
- e. A new mobile application to provide comprehensive information on all ocean-related services of the Indian National Centre for Ocean Information Services (INCOIS), an autonomous institute of the MoES. The mobile app named SAMUDRA (Smart Access to Marine Users for Data Resources and ocean Advisories) provides information on ocean-related services of INCOIS, including (but not limited to) potential fishing zone advisories, ocean state forecasts, and alerts on tsunamis, cyclones, storm surges, high waves, swell surges, etc. The app is designed using the latest technologies and will help disseminate information directly to users, especially coastal communities.
- f. A new web portal featuring the biodiversity of our Indian Ocean EEZ (Exclusive Economic Zone) was made open to the public. The web portal is called IndOBIS and can be accessed at <https://indobis.in/>. The portal has been developed by the Centre for Marine Living Resources and Ecology (CMLRE), Kochi, an attached office of the MoES. IndOBIS provides information on marine species of the Indian Ocean, including their occurrence and scientific classification. It serves as one of the 30 regional nodes of the OBIS (Ocean Biodiversity Information System). OBIS is an international open-access web platform for data and information on biodiversity and biogeography of global marine life. OBIS is a project under the Intergovernmental Oceanographic Commission (IOC)-UNESCO [International Oceanographic Data and Information](#) programme.
- g. A detailed scientific catalogue entitled 'Systematic account of Indian deep-water Brachyuran crabs collected during the expeditions of FORV Sagar Sampada' was released. It provides in-depth information on deep-sea crab diversity in the Indian EEZ (Exclusive Economic Zone) with pictures and maps of sampling locations. The Indian EEZ is the area in India's territorial Waters limited to 200 nautical miles from the coast. The catalogue authors are Vinay P Padate, Sherine Sonia Cubelio, and N Saravanane from CMLRE, Kochi. The e-copy of the catalogue is available at the MoES IndOBIS portal.
- h. A detailed report of the CAIPEEX IV (Cloud Aerosol Interaction and Precipitation Enhancement Experiment) by the Indian Institute of Tropical Meteorology (IITM), Pune, an autonomous institute of

the MoES, was released. The report elaborates results and recommendations of a scientific experiment strategy called cloud seeding used for enhancing rainfall and managing drought. It finds that rainfall can be enhanced by up to  $46\pm 13$  per cent at some locations and on average, and  $18\pm 2.6$  per cent in 100 square kilometres (km<sup>2</sup>) area in the downwind of seeding location over the rain shadow region of Solapur, Maharashtra. The cloud seeding project contributed to 867 million litres of water, yielding a positive cost-benefit ratio. The report will soon be freely available for download on the IITM website. It aims to benefit a variety of stakeholders, especially academia and policy-makers.

- i. A video film on the MoES was released to enhance public awareness about the history, mandate, activities, and achievements of MoES and its institutes in the last 75 years. The movie is expected to run on the YouTube channel of the MoES for public use. A shorter (7 minutes edited version) of the film is also available for quick reference.
- j. An Infographics book entitled '75 Years of Earth Sciences in India' was released to highlight the success story of the growth and achievements of the MoES through smart still visuals and crisp text description. The book aims to enhance awareness and document significant accomplishments and milestones of the MoES.
- k. The first-ever annual report of the National Centre for Medium-Range Weather Forecasting (NCMRWF), Noida, a subordinate office of the MoES. The report is a step towards enhancing transparency and visibility of the societally-relevant work of the institute. A new website of NCMRWF with an enhanced user interface was also launched. The website address is <https://www.ncmrwf.gov.in/>.
- l. A video explaining the 330m Delhi Model, developed by NCMRWF, Noida, in collaboration with international counterparts such as the UK Met Office. The high-resolution 330m Delhi model is used to study aerosols, Particulate Matter (PM)<sub>2.5</sub>, and fog in Delhi NCR and predict visibility in the capital region. The video explaining the 330m Delhi Model will be available on the MoES YouTube channel.
- m. A Compendium of Monthly Seismological Bulletins for 2021, 2022, prepared by the National Centre for Seismology (NCS), an attached office of MoES. The Compendium contains details of nearly 3500 well-recorded local and regional earthquakes by India's National Seismological Network.

Aligned with the vision of the Prime Minister Narendra Modi's Sabka Saath, Sabka Vikas, Sabka Vishwas, and Sabka Prayas, the MoES iterated its commitment to serving the nation and its citizens through scientific research, collaboration, cooperation, and world-class services.



**SNC/PK**

(Release ID: 1943416)