

Ministry of Earth Sciences (MoES)

Summary of Important Developments – October, 2021

- 1. Important policy decisions taken and major achievements during the month:** Provided in Annex I.
- 2. Important policy aspects / matters held up on account of prolonged Inter- Ministerial consultations/ delays, etc.:** Nil
- 3. Compliance of COS (Committee of Secretaries) decisions:**

S.No.	Number of COS decisions pending for compliance	Proposed action plan/timelines	Remarks
1.	<p>Dt 14/08/2014 PROPOSAL FOR KRILL FISHING</p> <p>MoES, in collaboration with MEA (Ministry of External Affairs), will study the experience of different countries showing varied interest in krill fishing so that India could learn from their experiences. MEA, in collaboration with MoES, will examine and identify the countries with which India can collaborate for krill fishing. MoES will ascertain the interest of Indian industry in krill fishing and also explore the feasibility of Indian companies collaborating directly with foreign companies. MoES will study legislations enacted by other member countries before finalising the draft legislation as part of international convention obligations.</p> <p>MoES will bring out a paper on krill fishing giving a detailed account of demand analysis, financial viability, interest of industry, experiences of other countries, criteria for fishing license, existing knowledge gap, etc. Thereafter, the CoS will meet again to decide whether India should engage in commercial krill fishing.</p>	<p>The Ministry has examined the aspect of Krill fishing. Japan & Norway have developed expertise and these countries have been tentatively identified for collaboration on Krill fishing. Their experiences have been obtained. Indian Industries have been approached for Krill fishing to ascertain their interests. However, so far we have not received any response. The draft paper is prepared and suggestions of Cabinet Secretariat have been obtained.</p>	<p>A proposal has been mooted through NITI Aayog for collaboration with Norway for krill fishing.</p>

- 4. Cases of sanction for prosecution pending in the Ministry for more than three months:** Nil
- 5. Particulars of cases in which there has been a departure from the Transaction of Business rules of established policy of the Government:** Nil
- 6. Status of implementation of e-Governance:** Being implemented
- 7. Status of Public grievances:**

No. of Public Grievances redressed during the month	No. of Public Grievances pending at the end of the month
22	17

8. Information on the specific steps taken by the Ministry/Department for utilization of the Space Technology based tools and applications in Governance and Development:

Potential Fishing Zone advisories are generated using the satellite derived parameters viz. Sea Surface Temperature, and Chlorophyll. Further, data from Global satellite data are used on continuous basis for generating short range and medium range weather forecasts.

9. (i) **Confirmation that the incumbency details of all posts in the Ministry/Department and its organizations falling under the purview of the ACC (Appointments Committee of Cabinets) have been updated on AVMS (ACC Vacancy Monitoring System):** It is confirmed that the incumbency details of all the posts in the Ministry/Department and its organizations falling under the purview of the ACC have been updated on AVMS and are placed at Annex-II.

(ii) **Status regarding compliance of the directions of ACC:** It is also confirmed that the directions of ACC are complied with.

(iii) **Status of cases where recommendations from PESB (Public Enterprise Selection Board) have been received but the proposals are yet to be submitted to the ACC Secretariat:** NIL

Important policy decision taken and major achievements:

- Dr. Jitendra Singh, Hon'ble Minister of State (Independent Charge) of the Ministry of Earth Sciences and Ministry of Science & Technology (HMoES) visited National Institute of Ocean Technology (NIOT) facilities and presided over the NIOT's 28th Foundation day celebration. He also launched the SAMUDRYAAN Indian Manned Ocean Mission under Deep Ocean Mission. Dr. M. Ravichandran, Secretary, MoES released E-Samudrika newsletter of NIOT in 3 languages (English, Hindi and Tamil) during the event.
- HMoES along with Secretary-MoES, Director NIOT and senior scientists participated in a short cruise onboard ORV Sagar Nidhi and inspected the NIOT fleet of vessels at Chennai Harbour.
- Azadi Ka Amrit Mahotsav Iconic Week was celebrated by MoES during Oct 18 to 24, 2021.
- 41st – Indian Scientific Expedition to Antarctica launched from National Centre for Polar and Ocean Research (NCPOR), Goa. The first batch of 23-members for Bharati station, Antarctica reached Cape Town, South Africa and started 14 days mandatory quarantine as per guidelines.
- Indian National Center for Ocean Information Services (INCOIS) and Directorate General of Hydrocarbons (DGH) signed a Memorandum of Understanding (MoU) for joint collaborations for providing customized weather & ocean state forecasting and emergency services on 11 October 2021.
- A MoU was signed between Indian Institute of Tropical Meteorology (IITM), Pune and Suzlon Energy Limited, Pune on 26th October 2021 for the potential collaboration in the field of mesoscale modelling in both forecast and hind-cast mode as well as in rain forecasting domain.
- Ministry of External Affairs and Ministry of Earth Sciences jointly organized a Virtual Conference on "Future of Natural Resources (Hydrocarbons, Rare Earth Metals and Blue Economy)" on 29th Oct 2021. Seven eminent scientists from the Indian Diaspora including one Indian speaker participated in the panel discussion and gave valuable insights and discussed the areas of probable collaboration with India. The feedback from the conference is expected to feed into the next Pravasi Bhartiya Divas Convention.
- The rainfall for the country as a whole, for the month of October-2021 has been recorded as 100.7 mm which is 133% of its Long Period Average (LPA) of 76.0 mm.
- The withdrawal of southwest monsoon started on 6th October 2021 from Gujarat and Rajasthan against its normal on 17th September. The Southwest monsoon withdrew from the entire country on 25th October 2021 against its normal on 15th October. The date of withdrawal of southwest monsoon 2021 from the entire country is the seventh most delayed monsoon withdrawal (on or after 25th October) during 1975-2021.
- Prof. Ravi S. Nanjundiah completed his tenure as Director IITM on 31st October 2021. Dr. R. Krishnan, Scientist-G is appointed as acting Director w.e.f., 1st November 2021.

There was no matter pending before the Cabinet requiring decision/approval.

Minimum Government, Maximum Governance:

- Dissemination of Agromet Advisories to user communities through SMS and IVR technology is continued in the country through Kisan Portal and under PPP (Public Private Partnership) mode. Presently, about 28.78 million farmers in the country are getting advisories through SMS directly.
- Adverse-weather SMS warnings are being sent through mobile to the State Government officials / Disaster-related officials / Central Government organizations/common man.
- Daily forecast along with warning and city forecast for many cities are disseminated through email to all users including state authorities, electronic and print media.

Atmospheric Observation Systems Network

Observation Type	Commissioned so far	Installations during the month	Data Reporting
Automatic Weather Station (AWS)	*362 (727-365)		362
Automatic Rain Gauge (ARG)	500** (1382-882)		500
Agro AWS	174	13	165
GPS Sonde based RS/RW (Radio Sonde/ Radio Wind Stations)	56	--	56
Doppler Weather Radar (DWR)	29***	--	28
Ozone (Ozone Sonde + Total Ozone)	04	--	04
Surface Ozone (Electrochemical Concentration Cell method)	07	--	07
Nephelometer	12	--	10
Sky Radiometer	20	--	13
Black Carbon Monitoring Systems (Aethalometer)	25	--	21
System of Air Quality Monitoring System (SAFAR)	10 (Delhi) 10 (Mumbai) 10 (Ahmedabad)	--	09 (Delhi) NIL (Mumbai)**** 10 (Ahmedabad)
Hydromet (Indian Meteorological Department (IMD)& Extra-departmental excluding AWS & ARG)	---	--	3218
Aviation	79	--	79
Radiation Stations	46	---	46

*Out of Total 727, 365 are outlived.

** Out of total 1382, 882 are outlived.

***Including 2 Doppler Weather Radars of Indian Space Research Organization (ISRO).

**** Contract with the firm is not renewed.

Modelling

During October 2021, every week on Thursdays, National Centre for Medium Range Weather Forecasting (NCMRWF) coupled model based Extended Range Prediction (ERP) for four weeks for rainfall, surface temperature and winds (full fields and anomalies) were provided in real-time to (i) Long-range forecast and Agri-Met divisions of IMD, (ii) IITM ERP group, (iii) Space Applications Centre (SAC), (iv) Snow and Avalanche Study Establishment (SASE), (v) Indian Air Force (IAF), (vi) Navy, (vii) Geological Survey of India (GSI), (viii) National Institute of Hydrology (NIH), (ix) All regional centres of IMD and (x) Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) countries Met Departments. Weekly snow forecasts were also sent to SASE for use at their end.

Monthly Weather Summary (October 2021)

a) Important Weather Events during the month

Low Pressure Systems: The remnant of cyclonic storm Gulab emerged as a well marked low pressure area into south Gujarat region & adjoining Gulf of Khambhat on 29th September. Thereafter it moved westwards and intensified into cyclonic storm “Shaheen” over the northeast AS off Gujarat coast on 1st October, 2021.

A Low Pressure Area has formed over East central Bay of Bengal on 14th October 2021 and it have caused fairly widespread to widespread rainfall/ thunderstorm activity over Gangetic West Bengal, Odisha, northern parts of Peninsular India, Central India, over East Rajasthan, coastal Andhra Pradesh, Telangana and Vidarbha.

Under the influence of an intense Western Disturbance and its interaction with the above mentioned low pressure area and its associated circulation features supported by moisture incursion from both Bay of Bengal and Arabian Sea, fairly widespread to widespread rainfall/ thunderstorm activity had occurred over Western Himalayan Region, West Uttar Pradesh, Northwest India, Uttarakhand, Himachal Pradesh, Haryana, Chandigarh and Delhi.

A Low Pressure Area formed over East central & adjoining Southeast Arabian Sea off Lakshadweep area on 14th October 2021. It caused fairly widespread to widespread rainfall/ thunderstorm activity over Kerala, Lakshadweep, extreme south Peninsula and Mahe.

An active Western Disturbance approached Northwest India from 22nd October 2021 and was seen as a cyclonic circulation in the lower tropospheric levels along with a trough aloft in the middle tropospheric levels; caused fairly widespread to widespread rainfall/ thunderstorm activity over Western Himalayan Region, Northwest India, Jammu Kashmir & Ladakh.

b) Rainfall Scenario: The rainfall for the country as a whole, for the month of October-2021 has been recorded as 100.7 mm which is 133% of its Long Period Average (LPA) of 76.0 mm.

c) Heavy Rainfall Events:

Warning issued for	No. of Heavy/Very Heavy Rainfall Events (>64.4 mm): 217
	Percentage correct (in %) for Rainfall >64.4mm
Day1 / 24 Hours	83%
Day2 / 48 Hours	85%
Day3 / 72 Hours	84%

d) Temperature Scenario: The mean temperature for the month of October-2021 for the country as a whole was 26.79^oC which was above normal by 0.77^oC. The highest maximum temperature of

39.9°C had been recorded at Ganganagar (West Rajasthan) on 9th October 2021 and the lowest minimum temperature of 9.5°C had been recorded at Mandla (East Madhya Pradesh) on 31st October 2021 over the plains of the country during the month.

e)Thunder squall & Hailstorm activity: Thunder squall & Hailstorm activity during the month (till 0830 IST of last date of the month) is given in the table below:

S. No.	Region	TS Days	Date of Maximum TS Activity	Hail Events	Squall Events	Dust storms
1.	South Peninsular India	31	9 October, 11 October, 22 October, 24 October	Nil	Nil	Nil
2.	Northwest India	18	2 October, 18 October	15 {Katra-5 (1 on 11 October, 4 on 23 October), Jammu-7 (on 23 October), Batote-2 (on 23 October), Chandigarh-1(24 October)}	Nil	Nil
3.	Northeast India	15	3 October	Nil	Nil	Nil
4.	East India	25	17 October, 20 October	Nil	3 {Port Blair -3 (2 on 7 October & 1 on 16 October)}	Nil
5.	Central India	14	6 October	Nil	Nil	Nil
6.	West India	13	9 October	Nil	Nil	Nil

Bulletins/Warnings/Press Releases Issued:

All India Weather Bulletins:-124, All India inference and severe weather warnings:-124, All India Weekly Weather Reports:-4, Mountain (Mt.) weather bulletins issued for western and central Himalayan region:-62, Indian Army during expedition in Tawang area-18, Indian Army during expedition in Arunachal Pradesh-22, Indian Army 5 Armoured Reg during expedition in Uttarakhand-20, Indian Army (Gorkha Rifles) during Mt. Khangchengyao Expedition-10, Navy (14 MECH INF) during Mt. Trishul Expedition-19, SDRF expedition-1, Indian Army during Mt. Nun Expedition-7, Marine Weather Bulletins:-62, Nowcast Guidance Bulletins for severe weather:-31, Special Daily Weather Report (SDWR) for monsoon season 2021: 1 (Last SDWR for the season), Bulletins of the Severe Weather Forecast Programme (SWFP):-31, Tropical Weather Outlook to World Meteorological Organization (WMO)/ Economic and Social Commission for Asia and the Pacific (ESCAP) Panel member countries or the north Indian Ocean:-31, Extended range outlook on Cyclogenesis (Weekly basis on every Thursday):-4, Total 27 Press Releases were issued by IMD

Publications & Operational Reports:

- i) El Niño-Southern Oscillation (ENSO) bulletin for the month of October 2021 and Seasonal Climate Outlook for South Asia for the period of October to January 2022 were issued. (Quick Link :www.imdpune.gov.in/Clim_Pred_LRF_New/Products.html)
- ii) Monthly and cumulative Standardized Precipitation Index (SPI) maps were prepared for the month ending September 2021 for use in Climate Diagnostic Bulletin of India. The same have also been uploaded in IMD Pune website.
- iii) Computed gridded SPI & Standardized Precipitation Evapotranspiration Index (SPEI) at 0.5*0.5-degree resolution at 4 weekly, 1, 2, 3, & 4 monthly time scales. Uploaded the maps of the aforementioned timescales at weekly basis on IMD Pune website.
- iv) Four weekly and cumulative Standardized Precipitation Index (SPI) maps were prepared for the weeks ending 06.10.2021, 13.10.2021, 20.10.2021 and 27.10.2021 and supplied for use in Agromet Advisory Services Bulletin. The same have also been uploaded in IMD Pune website.
- v) Four weekly Aridity anomaly maps for the period 30 September to 06 October, 07 to 13, 14 to 20 and 21 to 27 October 2021 have been prepared and uploaded on IMD Website.
- vi) Four Biweekly Aridity Anomaly maps for the period 23 September to 06 October, 30 September to 13 October, 07 to 20 and 14 to 27 October 2021 have been prepared.
- vii) Monthly Aridity Anomaly Maps for the period September and June to September 2021 cumulative have been prepared and uploaded on IMD Website.

Seismological Observational Network

Observation Type	Target	Commissioned so far	Data reporting during the month
Seismic stations	115	150	140

Earthquake and Tsunami monitoring

Earthquake: 128 earthquakes were monitored in the Indian region out of which 5 events were greater than the magnitude (M) of 5.0.

Tsunami: 2 seabed earth quakes (M> 6) with a potential to generate tsunami occurred. These informations were provided in less than 12 minutes of occurrence of all the events.

Ocean Observation System

Type of Platform	Target	Commissioned till October, 2021	Data received during October, 2021
Argo Floats *	200	374	83
Moored Buoys	16	19	12
Tide Gauges	36	36	31
High Frequency (HF) Radars	10	12	9
Acoustic Doppler Current Profiler (ADCP)	20	20	18
Tsunami Buoys	4	7	3
Wave Rider Buoy	23	16	7

*The remaining floats/ drifters have completed their life time and as such no data can be received from them.

Ocean Science Services

No	Types of forecasts	No. of advisories issued during the month
1.	Integrated Potential Fishing Zone (PFZ) advisories (Sea	31

	Surface Temperature (SST), Chlorophyll., wind)	
2.	Tuna Fishing Advisories	26
3.	Ocean State Forecast (OSF)-Wave, Wind, Currents, SST (Sea Surface Temperature), MLD (Mixed Layer Depth) and D20 forecasts	31
4.	Real time global ocean analysis (daily)	30
5.	Coral Bleaching Alert System	10

Outreach and Awareness

- MoES and its institutes conducted the following activities as part of Azadi Ka Amrit Mahotsav iconic week celebrations from Oct 18 to 24, 2021.
 - i. On Oct 18, MoES Head Quarters (HQ), INCOIS, NIOT, NCPOR organized inaugural interactive session on 'Role of Technology and Startup in Blue Economy' followed by several technical lectures; IITM organized a lecture series on turbulence, droplet collisions and growth; National Centre for Coastal Research (NCCR) organized an interactive workshop an online poetry writing and poster making competition; and INCOIS organized poster making and poetry writing competition.
 - ii. On Oct 19, INCOIS Director participated in an interactive programme regarding MoES ocean related services; NIOT conducted an awareness session on ocean technology and achievements for school students in regional language; and IMD organized a lecture series on recent advances in early warning services.
 - iii. On Oct 20, INCOIS conducted a visit of visually impaired students and persons and differently-abled students to their campus; Centre for Marine Living Resources and Ecology, Ministry of Earth Sciences (CMLRE) conducted a workshop on conservation and sustainable practices for effective utilization of fishery resources at Kavarati Island for the benefit of Island fishery community; National Center for Seismology (NCS) organized an awareness drive on Earthquakes and painting competition for school children; NCCR organised awareness campaign for differently abled children; MoES HQ and NCPOR organized a virtual reality experience of the Bharti Research Station, Antarctica for MoES employees and staff.
 - iv. On Oct 21, INCOIS organized a fishermen interaction programme, a panel discussion on 'Career Opportunities and Challenges for Women in Earth Sciences' to foster pursuit of Science, Technology, Engineering, and Mathematics (STEM) careers among female students; NCMRWF organized poster making competition for school students; IMD organized a lecture series on Weather and climate services in India; NCS organized an event on Awareness on Earthquakes for school children; and NIOT organized awareness event on ocean technology and achievements for school students in regional language.
 - v. On Oct 22, NCS organized an awareness event on earthquakes for visually challenged individuals; NCCR and NIOT conducted an awareness program for underprivileged children followed by a quiz, games and drawing competition to create awareness on coastal systems; MoES HQ, NCPOR, NCS, and NIOT organized an interactive session on beach cleaning initiatives and live interaction of audience with volunteers, interaction of students with scientists from India's Antarctic station Bharti, and virtual reality tour of Antarctic station Bharti; IITM organized a webinar on Lightning strikes; IMD organized two webinars related to heat waves; INCOIS organized a fishermen interaction programme, an online session on connect to the Industry, and online open quiz competition for schools.

- vi. On Oct 23, INCOIS organised interactive sessions at various schools about MoES services; NCMRWF organized a poster making competition on weather, climate, and our life for school students; NCS organised an online lecture on earthquakes for college students of Indian Institutes of Science Education and Research (IISERs); NCCR and NIOT organised an interactive workshop on marine environment, its applications and management; CMLRE and NIOT organised an awareness program on marine biodiversity conservation by sea farming for promoting rural economy in Agatti islands, Lakshadweep; IMD organized a panel discussion; and NIOT organised an awareness program on ocean technology and achievements for school students in regional language.
- vii. On Oct 24, IMD organized two webinars related to weather and climate services. NCCR, Chennai organized a 3-day training programme on Coastal Hazards Management Way Towards Resilience on Oct 25, 2021.
- Vigilance Awareness Week was observed by MoES and its institutes during 26th Oct -1st Nov 2021 on the theme “Independent India @75: Self Reliance with Integrity”.
 - United Nations Educational, Scientific and Cultural Organization - Intergovernmental Oceanographic Commission (UNESCO-IOC) organized a regional workshop on Standard Operating Procedure (SOP) for Disaster Management Organizations and Broadcasting Media in Tsunami Warning Chain during 12-14 October and 26-28 October 2021. The workshops were focused on the Northwest Indian Ocean countries i.e., India, Iran, Oman, Pakistan, and United Arab Emirates (UAE). From India, National Disaster Management Authority (NDMA) and Media representatives (Press Information Bureau, All India Radio) participated in the workshops. As part of the workshops, INCOIS had detailed discussions with NDMA & Media on SOPs.
 - International Training Centre for Operational Oceanography (ITCOcean), INCOIS which is also a Category 2 Regional Training Center (RTC) of Ocean Teacher Global Academy (OTGA), UNESCO, successfully conducted training course on ‘Discovery and Use of Operational Ocean Data Products and Services’ to Indian Ocean Rim Countries during 25-29 Oct 2021. Fifty-six (56) participants including forty-three (43) foreign nationals attended this training course.
 - INCOIS hosted a virtual meeting on Connect to Industry on Ocean Services and Technology to the industry users on October 22, 2021. This was well attended by the industry comprising of representatives from the maritime boards, fishery industries, startup firms, instrumentation firms and others.
 - IITM, Pune Special Lecture in Marathi was delivered by Dr. S.D. Pawar, Scientist-F, IITM on “Lightning strikes: Information and Safety (वीज कोसळणे: माहिती आणि सुरक्षितता)” on 22nd October 2021. <https://youtu.be/5kw50hvWwZI>.
 - 41st Earth Sciences Popular Lecture series talk was given by Dr. Krishnan Raghavan, Scientist-G, Executive Director, Centre for Climate Change Research, Indian Institute of Tropical Meteorology, Pune on Climate change and monsoon projections: Challenges and opportunities on 1st October 2021, https://youtu.be/u_CuDyXggv8.
 - Beach clean-up awareness activity was coordinated by NCCR at Puri-Odisha, Mahim beach-Mumbai, Mahim Reti Bunder-Mumbai and Dana Pani Beach-Mumbai on 2nd, 5th, 6th and 7th October 2021.

- IMD - World Meteorological Organization (WMO) Fellowship Training Course on "Numerical Weather Prediction (NWP)" started on 4th Oct 2021 and in progress with 26 participants (19 Overseas participants & 7 National participants).
- Director General of Meteorology (DGM), IMD chaired the On-line Pre-Cyclone Exercise Meeting organized by IMD on 25th October with participation from experts from Ministry of Home Affairs (MHA), National Disaster Response Force (NDRF), National Disaster Management Agency (NDMA), Department of Fisheries, Central Water Commission (CWC), Indian Air Force (IAF), Indian Navy (IN), Ministry of Port & Shipping, Ministry of Oil Industry, Ministry of Defense, Ministry of Petroleum & Natural Gas, Ministry of Health & Family Welfare, Ministry of Railways, All India Radio, Doordarshan, Coast Guard, Government of West Bengal, Odisha, Andaman & Nicobar Islands, Andhra Pradesh, Tamil Nadu, Puducherry, Kerala, Karnataka, Goa, Maharashtra, Gujarat, sister organizations of IMD including National Centre for Medium Range Weather Forecasting (NCMRWF), Indian National Centre for Ocean Information Services (INCOIS), Indian Institute of Tropical Meteorology, Pune, Indian Institute of Technology (IIT) Delhi, Area Cyclone Warning Centres of IMD at Chennai, Mumbai, Kolkata, Cyclone Warning Centres at Bhubaneswar, Visakhapatnam, Thiruvananthapuram & Ahmedabad, Radar Divisions at various coastal states and experts of IMD at Delhi Office.
- IMD issued daily weather forecasting video of about 5 minutes duration in English & Hindi through YouTube, Facebook, Twitter and IMD website.
- Weekly Video on extended range forecast (upto two weeks) were issued every Thursday through website and social media (Facebook, Twitter, YouTube etc.).
- Daily interviewed was provided by the forecasters within the country.
- The forecast videos in regional language were issued by regional offices of IMD regularly.
- Bulletins and Warnings along with graphics were also communicated through Social Media including Facebook, Twitter, Instagram, YouTube and IMD Blog page.

Publications

Subject	Publications			Ph.Ds		
	April, 2021 – September 2021	October, 2021	Total	April, 2021 – September 2021	October, 2021	Total
Atmospheric Sciences	128	17	145	4	-	4
Ocean Science and Technology	51	9	60	1	-	1
Polar Sciences	33	4	37	1	-	1
Geosciences and resources	60	11	71	2	-	2
Total	272	41	313	8	-	8

Utilization of Ocean Research Vessels during the month

Vessel	Days at Sea / Utilization	Maintenance/ Inspection /Scientific Logistics / Cruise Preparation	No. of Cruise
Sagar Nidhi	14	17	1
Sagar Manjusha	0	31	0
Sagar Tara	0	31	0
Sagar Anveshika	0	31	0
Sagar Kanya	23	8	1

Sagar Sampada	0	31	0
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No. MoES/20/01/2017-Est.
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Ministry of Earth Sciences

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Dated, the 9th November, 2021.

CERTIFICATE

(FOR THE MONTH OF OCTOBER, 2021)

It is certified that the detailed status regarding all the posts pertaining to Ministry of Earth Sciences have been updated on AVMS as on last day of the month of October, 2021. A summary of the status is given below:-

a. The total number of posts required to be entered on AVMS	- 13
b. Number of posts filed as on date	- 11
c. Number of posts totally vacant as on date	- 01
d. Number of posts under additional charge arrangement	- 01
e. Number of posts that would fall vacant during the next 6 months	- 01


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