Quarterly Newsletter

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INDIA METEOROLOGICAL DEPARTMENT (Ministry of Earth Sciences)

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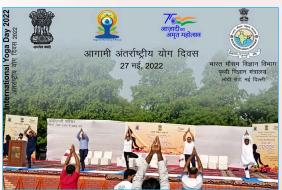
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IMPORTANT EVENTS

Count Down Event to International Yoga Day 2022

Count down event to **International Yoga Day 2022** was organised in the compound of India Meteorological Department on 27th May, 2022. Honourable Union Minister **Dr. Jitender Singh** made his great presence in the event and performed the yoga activities. He encouraged people to exercise the yoga routine in their daily life. **Dr. Mrutyunjay Mohapatra**, DG, IMD, **Dr. S. D. Attri**, Sc. 'G' and **Dr. Gopal Ayenger**, Sc. 'G', Ministry of earth Sciences also attended the event and practiced the Yoga activities. Many other officials of IMD and Ministry of Earth Sciences participated in the event. The theme of the International Yoga Day-2022 was "Yoga for humanity".





Dr. Jitender Singh, Honourable minister, Dr. Mrutyunjay Mohapatra, DG, IMD,
Dr. Gopal Ayenger, Sc. 'G, ' Dr. S. D. Attri, Sc. 'G, and other officials of MoES and IMD practicing Yoga

WMO Executive Council Meeting

Dr. M. Mohapatra, DG, IMD participated in **75**th session of the Executive Council (EC-75) of "WMO held during 20 to 24 June 2022 in Geneva, Switzerland.

The WMO's Executive Council has given the green light to major strategic proposals to ensure that early warning services reach everyone in the next five years and to establish a Greenhouse Gas monitoring system.



Dr. M. Mohapatra, DG, IMD during "WMO Executive Council Meeting"

संयुक्त हिंदी सलाहकार समिति

पृथ्वी विज्ञान मंत्रालय तथा विज्ञान और प्रौद्योगिकी मंत्रालय की संयुक्त हिंदी सलाहकार समिति की 31 वै वैठक का आयोजन माननीय मंत्री महोदय की अध्यक्षता में दिनांक 6 जून, 2022 को पृथ्वीत विज्ञान मंत्रालय में किया गया। इस बैठक में डॉ. मृत्युंजय महापात्र, महानिदेशक महोदय ने सदस्य के रूप में भाग लिया। महानिदेशक महोदय द्वारा माननीय मंत्री महोदय तथा समिति के सभी सदस्यों का शॉल पहनाकर स्वागत किया गया। मुख्यालय से श्रीमती सरिता जोशी, उपनिदेशक (रा.भा.), वरिष्ठ अनुवाद अधिकारी तथा कनिष्ठ अनुवाद अधिकारी भी इस बैठक में उपस्थित रहे।



डॉ. मृत्युंजय महापात्र बैठक के दौरान माननीय मंत्री डॉ. जितेंदर सिंह का स्वागत करते हुए













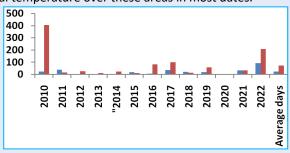




Significant Weather Features

Salient features of month April 2022

Absence of active WDs over north India caused highly sub-dued rainfall and very less thunderstorm activities over northwest and central parts of India leading to frequent and also prolonged spell of heat wave to severe heat wave days and higher than normal temperature over these areas in most dates.



Month-wise total Heat wave and severe heat wave reported -For March and April 2010-2022)

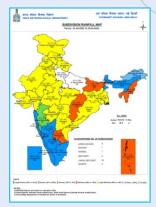
Two cyclonic circulations moved from southwest Bay of Bengal to Southeast Arabian Sea and adjoining Kerala coast during week ending on 13th and 21st April. The north-south troughs/wind discontinuities from Central India to South Peninsula in the lower troposphere levels which persisted almost throughout.

Frequency of Heavy Rainfall events over India

Heavy rainfall events occurred mainly over some stations of south peninsular India and northeast India. The location of occurrences of extremely heavy rainfall, heavy rainfall and heavy rainfall events is shown in the Figure. Out of total 103 stations, 3 stations reported extremely heavy rainfall (> 204.5 mm), 20 stations reported very heavy rainfall (115.6 to 204.4 mm) and 80 stations reported heavy rainfall (64.5 to 115.5 mm of rainfall)

Rainfall Scenario

The rainfall statistics was prepared for the month of April-2022. The rainfall for the country as a whole, for the month of April-2022 has been recorded as 38.4 mm which is 98% of its Long Period Average (LPA) of 39.3 mm.



Sub-division wise Rainfall map, May-22

Temperature Scenario

The mean temperature for the month of April-2022 for the country as a whole was 29.40 $^{\circ}$ C which was above normal by +1.36 $^{\circ}$ C. The normal temperature for the month is 28.04 $^{\circ}$ C. Heat wave to severe heat wave conditions had occurred at most places.

Salient Features of month May, 2022

Severe Cyclonic Storm ASANI over Bay of Bengal

A low pressure area formed over South Andaman Sea and adjoining Southeast Bay of Bengal in the morning (0830 hrs IST) of 6th May. It lay as a well marked low pressure area over Southeast Bay of Bengal and adjoining south Andaman Sea in the early morning (0530 hours IST) of 7th May. It moved northwestwards and intensified into a deep depression over southeast Bay of Bengal in the same evening (1730 hrs IST) of 7th May, 2022. Continuing to move northwestwards, it intensified into the cyclonic storm "ASANI" in the early morning (0530 hrs IST) of 8th May and into a severe cyclonic storm in the same evening (1730 hrs IST) over southeast Bay of Bengal. It reached peak intensity of 55 knots (100-110 kmph gusting to 120 kmph) on 9th early morning (0530 hrs IST). It maintained its peak intensity till 10th noon (1130 hrs IST), thus for 30 hrs. From 10th evening, it started gradually moving north-northwestwards and weakened into a cyclonic storm over westcentral Bay of Bengal about 60 km south-southeast of Machilipatnam in the early hours (0230 hrs IST) of 11th May. Thereafter, it started moving nearly northwards with a very slow speed and weakened into a deep depression over westcentral Bay of Bengal close to Andhra Pradesh coast in the evening (1730 hrs IST) of 11th May. It crossed Andhra Pradesh coast near latitude 16.3° N and longitude 81.3° E between Machilipatnam and Narsapur during 1730-1930 hours IST of 11th May, 2022 as a deep depression with maximum sustained wind speed of 55-65 kmph gusting to 75 kmph. It then weakened into a depression in the early morning (0530 hrs IST) and further into a well marked low pressure area in the morning (0830 hrs IST) of 12th May over coastal Andhra Pradesh.



Observed track of severe cyclonic storm 'ASANI" over the Bay of Bengal during 7th-12th May, 2021

Advance of Southwest Monsoon

Southwest Monsoon had advanced into some parts of South Bay of Bengal, most parts of Andaman & Nicobar Islands and Andaman Sea on 16th May; it had further advanced into some more parts of South Bay of Bengal, entire Andaman & Nicobar Islands and Andaman Sea and some parts of East central Bay of Bengal on 18th it further advanced into some parts of South Arabian Sea, southern parts of Maldives, some more parts of South and East central Bay of Bengal on 20th May 2022; Southwest Monsoon advanced into some parts of Southwest Arabian Sea, some more parts of Southeast Arabian Sea, Maldives & Comorin area and South Bay of Bengal on 26th May 2022.





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It had further advanced into some more parts of South Arabian Sea, entire Maldives area & adjoining areas of Lakshadweep and some more parts of Comorin area on 27th; it advanced into remaining parts of South Arabian Sea, Lakshadweep area, most parts of Kerala, some parts of south Tamil Nadu and Gulf of Mannar and some more parts of Southwest Bay of Bengal on 29th May 2022; thus, the Southwest Monsoon had set in over Kerala on 29th May, 2022 against the normal date of 1st June (3 days ahead of normal date).

It had advanced into some parts of Central Arabian Sea, some parts of Karnataka, entire Kerala, some more parts of Tamil Nadu, entire Southeast Bay of Bengal, some more parts of Southwest Bay of Bengal, most parts of Eastcentral Bay of Bengal, some parts of Westcentral and Northeast Bay of Bengal on 31st May 2022; the Northern Limit of Monsoon (NLM) passed through Lat. 15° N / Long. 60° E, Lat. 15° N / Long. 70° E, Karwar, Chikmangaluru, Bengaluru, Dharmapuri, Lat. 10° N / Long. 80° E, Lat. 11.0° N / Long. 83° E, Lat. 14.0° N / Long. 86° E, Lat. 20.0° N / Long. 91° E and Lat. 22.0° N / Long. 93° E as on 31st May 2022.

Temperature Scenario

The mean temperature for the month of May-2022 for the country as a whole was 29.96 $^{\circ}$ C which was above normal by +0.22 $^{\circ}$ C. The normal temperature for the month is 29.74 $^{\circ}$ C.

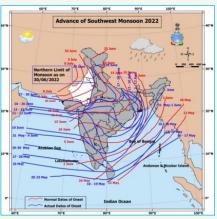
Rainfall Scenario

The rainfall statistics was prepared for the month of May-2022. The rainfall for the country as a whole, for the month of May-2022 has been recorded as 83.4 mm which is 134% of its Long Period Average (LPA) of 62.0 mm. In all, category wise, 11 Met sub-divisions in Large Excess, 09 Met sub-divisions in excess, 05 Met sub-divisions in Normal, 05 in Deficient, 06 in Large Deficient and no any Met-sub-divisions remained in "No Rain" category of rainfall.

Salient Features of month June, 2022

Rainfall Scenario

The rainfall for the country as a whole, for the month of June-2022 has been recorded as 152.3 mm which is 92% of its Long Period Average (LPA) of 165.3 mm. In all, category wise, 02 Met sub-divisions in Large Excess, 04 Met sub-divisions in Excess, 10 Met sub-divisions in Normal, 20 in Deficient and no any Met. sub-divisions remained in Large Deficient and "No Rain" category of rainfall.



Advance of Southwest Monsoon

About five Western Disturbances had affected Northwest India during the month; passage of one among them had caused fairly widespread to widespread rainfall/thunderstorm activity over Western Himalayan Region on six to seven days and over Punjab on three to four days during the second half of the month; passage of the systems along with the presence of a cyclonic circulation over Haryana & neighbourhood in the lower tropospheric levels had caused scattered to fairly widespread rainfall/thunderstorm activity over Rajasthan and Madhya Pradesh on five to six days and over Haryana.

Temperature Scenario

The mean temperature for the month of June-2022 for the country as a whole was 29.62 $^{\circ}$ C which was above normal by +0.37 $^{\circ}$ C. The normal temperature for the month is 29.25 $^{\circ}$ C.

Press release

Monthly Outlook for Temperature and Rainfall of May, 2022

IMD organized Press Conference on "Monthly Outlook for Temperature and Rainfall during May, 2022" on 30th April, 2022. Dr. M. Mohapatra, DG, IMD made a presentation on the subject. The highlights are summarized below:

Temperature - During May, above normal maximum temperatures are likely over most parts of the west central and northwest India, and northern parts of northeast India. During May, above normal minimum temperatures are likely over most parts of northwest, central, east and northeast India.

Rainfall - The rainfall in May 2022 averaged over the country is most likely to be above normal (>109% of LPA). The normal to above normal rainfall is likely over most parts of India except some parts of northwest India and some parts of northeast India as well as extreme southeast Peninsula where it is likely to be below normal.

SST Conditions - Currently, La Niña conditions are prevailing over the equatorial Pacific region. The latest MMCFS forecast indicates that the La Niña conditions are likely to continue throughout the forecast period. At present neutral IOD conditions are present over the Indian Ocean and the latest MMCFS forecast indicates that the negative IOD conditions are likely to develop towards the beginning of June.

1st stage Long Range Forecast of Monsoon Season rainfall (14 April, 2022)

- IMD Southwest monsoon seasonal (June to September) rainfall over the country as a whole is most likely to be normal [96 to 104 % of Long Period Average (LPA)].
- Quantitatively, the monsoon seasonal (June to September) rainfall is likely to be 99% of the Long Period Average (LPA) with a model error of ± 5%. The LPA of the season rainfall over the country as a whole for the period 1971-2020 is 87 cm.



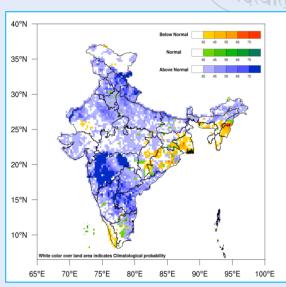




 Currently, La Niña conditions are prevailing over the equatorial Pacific region. The latest MMCFS as well as other climate model forecast indicates that La Niña conditions are likely to continue during the monsoon season. At present, neutral IOD conditions are present over the Indian Ocean and the latest MMCFS forecast indicates that the neutral IOD conditions are likely to continue until the beginning of southwest monsoon season. Thereafter, enhanced probability for negative IOD condition is predicted.

Updated Long Range Forecast of Southwest Monsoon Season (June - September), 2022 and Monthly Outlook for Rainfall and Temperature during June 2022 (31st May, 2022)

- Southwest monsoon seasonal (June to September) rainfall over the country as a whole is most likely to be normal [96 to 104% of Long Period Average (LPA)].
- Quantitatively, the monsoon seasonal (June to September)
 rainfall over the country as a whole is likely to be 103% of
 the Long Period Average (LPA) with a model error of ± 4%.
- The southwest monsoon seasonal rainfall over the four homogeneous region is most likely to be Above Normal for Central India (>106% of LPA) and South Peninsula (>106% of LPA).
- The southwest monsoon seasonal rainfall over the monsoon core zone, which consists of most of the rainfed agriculture regions is most likely to be Above Normal (>106% of LPA).
- Monsoon seasonal rainfall is likely to be well distributed spatially with most parts of the country expected to receive normal to above normal rainfall except some parts of east central, east & northeast India and extreme southwest peninsular India, where it is likely to be below normal.
- Prevailing La Niña conditions are likely to continue over equatorial Pacific Ocean and development of negative IOD conditions over the Indian Ocean during the monsoon season is most likely.



Updated Probability forecast of tercile categories* (below normal, normal, and above normal) of rainfall over India during monsoon season (June -September), 2022

Significant Events

Pre-cyclone exercise Meeting on 5th April, 2022

IMD organized the on-line pre-cyclone exercise meeting on 5th April, 2022 under the chairmanship of Dr. Mrutyunjay Mohapatra, DG, IMD to review the preparedness, take stock of requirements, plan for the cyclone season April-June, 2022 and share new initiatives by IMD with stake holders. Dr. Mohapatra, DG, IMD in his opening address touched upon various issues from forecasting to last mile connectivity and discussed the areas that require improvement in particular customized sector specific advisories as per user's need. He informed the participants that IMD has achieved significant improvements in observational network, modeling capabilities and forecasting techniques. As a result, there has been a paradigm shift in the cyclone forecasts in terms of track, landfall, intensity and adverse weather including heavy rainfall, strong wind and storm surge warnings. He also briefed the participants on the new developments in cyclone warning services during 2022.



Institutional Mechanism of Cyclone Warning Division of IMD

Other Significant Events

SOUTH ASIAN CLIMATE OUTLOOK FORUM

22nd Session of South Asian Climate Outlook Forum (SASCOF-22) and Climate Services User Forum (CSUF) have been conducted online from 26-28 April, 2022.

MEMORANDUM OF UNDERSTANDING

Memorandum of Understanding was signed between IIT Bombay, Mumbai and IMD (CR&S Pune) for joint studies and Projects related to climate on 2nd May, 2022.









MEMORANDUM OF UNDERSTANDING

A Memorandum of Understanding signed between India Meteorological Department and Power System Operation Corporation Ltd. (POSOCO) on 3rd June, 2022 regarding "Use of Weather Information provided by India Meteorological Department by Power System Operators across the India for better management of Indian Power System and for the purpose of analysis".



Dr. M. Mohapatra, DG, IMD and Mr. S. R. Narasimhan; CMD,
POSOCO during the Signing event

Human Resource Development Activities

WORKSHOP

Dr. Kuldeep Srivastava, Sc. 'E' attended workshop on "WIS 2.0 meeting" conducted by World Meteorological Organization (WMO) on 22nd June, 2022 in virtual mode regarding its implementation plan, and "WIS2 in a box", to the industry to prepare for the transition from WIS and GTS to WIS 2.0 and to explore opportunities for synergies to foster WIS-2.0.

A Workshop on "Meteorology for System Operators" was organized by IMD & amp; POSOCO in online mode from 23-24 June, 2022. It was attended by officials from National and State Load Despatch Centres, NHPC and other Power Companies. Scientists from IMD delivered lectures on various topics during it.

Shri B. P. Yadav, Sc. 'F', Shri Rahul Saxena, Sc. 'F', Dr. A. K. Das, Sc. 'E', Shri S. K. Manik, Sc. 'C', Shri Asok Raja, Sc. 'C' and Ms. Hemlata Bharwani, Sc. 'C' along with representatives of NRSC, GSI participated in the 1-Day Technical Workshop on "Landslide Hazard Assessment Capability"- Training of Forecasters with special emphasis on Rudraprayag (Uttarakhand) and Wayanad (Kerala), Indian Region on 29th June, 2022.

MEETINGS / VIDEO CONFERENCES

- Dr. P. Guhathakurta, Sc. 'F', Dr. O. P. Sreejith, Sc. 'E', Dr. Satyabhan Bishoy Ratna, Sc. 'E', Dr. Divya Surendran, Sc. 'C', Dr. S. D. Sanap, Sc. 'C', Ms. Arti Bandgar, Sc. 'C', Ms. Smita Nair, Met. 'A' and Mr. Prasad Bhor, Met. 'A' participated in the online Pre-COF meeting from 5-7 April & 19-21 April, 2022 and for SASCOF-22 CSUF from 26-28 April, 2022.
- **Dr. M. Mohapatra**, DG, IMD participated in the Annual Conference on Capacity Building for Disaster Response 2022 organized by NDRF, New Delhi on 7th April, 2022. DGM, IMD also participated in the Valedictory Session on 8th April, 2022.

- Dr. Geeta Agnihotri, Sc. 'F' and Dr. Rajavel Manickam, Sc. 'E', Dr. Kuldeep Srivastava, Sc. 'E', Dr. Sankar Nath, Sc. 'E' and Shri Parmod Kumar, Sc. 'C', have attended "AMR/ACR 2022 Meeting" held on 8-9 April, 2022.
- **Dr. S. D. Attri,** Sc. 'G' participated in the "**2**nd **Meeting of the Steering Committee**" held under the Chairmanship of Addl. Secretary, MoEF&CC on **11**th April, 2022 regarding **India's Adaptation Communication**.
- Dr. K. K. Singh, Sc. 'G' and Head, AASD and Dr. S. D. Attri, Sc. 'G' attended the Meeting to discuss the development of the dissemination system with Ministry of information Technology for use of Agromet information by farmers on 12th April, 2022.
- **Dr. M. Mohapatra**, DG, IMD participated in the discussion Meeting with team from UNDP regarding "Climate services in Uttarakhand and Sikkim states" on 13th April, 2022.
- **Dr. M. Ravichandran**, Secretary, MoES and **Dr. M. Mohapatra**, DG, IMD attended the Department related Parliamentary Standing Committee on Science and Technology, Environment, Forests and Climate Change regarding "Monsoon prospects **projections for 2022**" on 18th April, 2022.
- Shri K. S. Hosalikar, Sc. 'G', Dr. O. P. Sreejith, Sc. 'E' and Dr. Rajib Chattopadhyay, Sc. 'E', participated in "Quad Climate Information Services Taskforce Experts Group" on 19-20 April, 2022.
- **Dr. M. Mohapatra**, DG, IMD participated in the "**15**th **Civil Services Day**" at Vigyan Bhawan, New Delhi on 20-21 April, 2022.
- **Dr. M. Mohapatra**, DG, IMD participated in the Virtual Conference Call on the "**Monsoon Season**" with Systematix Shares and Stocks (India) Ltd. on 22nd April, 2022.
- **Dr. S. D. Attri**, Sc. 'G', **Dr. Kuldeep Srivastava**, Sc. 'E' and **Dr. Sankar Nath**, Sc. 'E' participated in the discussion meeting regarding the **Tamil Nadu Disaster Agency and Management** on 22nd April, 2022.
- **Dr. S. D. Attri**, Sc. 'G' participated in the **Panchayati Raj Day celebrations** at Alli Village, Samba, J&K on 23rd April, 2022 which was inaugurated by the Hon'ble Prime Minister of India.
- Dr. S. D. Attri, Sc. 'G' attended the "ET-ARM of SERCOM" of WMO on 24^{th} April, 2022
- **Dr. M. Mohapatra**, DG, IMD and other experts in IMD participated in the Virtual Meeting on "**Vulnerability Analysis and downscaling of Global Climate Model in Odisha context**" organized by Forest Environment & Climate Change Deptt., Govt. of Odisha on 25th April, 2022.
- **Dr. M. Mohapatra**, DG, IMD participated in the Inaugural Session of "**22**nd **South Asian Climate Outlook forum**" on 26th April, 2022.
- **Dr. Kuldeep Srivastava**, Sc. 'E' attended Eighth Meeting of "**Geospatial Information Sectional Committee, LITD-22**" held on 26th April, 2022 through WebEx.







- **Dr. M. Mohapatra**, DG, IMD participated in the **Research advisory Committee Meeting** of IITM on 28-29 April, 2022 and virtually in **Governing Council meeting** on 30th April, 2022.
- **Dr. M. Mohapatra**, DG, IMD participated in the VC meeting on "**Heat Wave & Monsoon Preparedness**" on 2nd and 5th May, 2022 under the chairmanship of Principal Secretary to Prime Minister and made a presentation on 5th May, 2022.
- **Dr. Kripan Ghosh**, Sc. 'F' attended the meeting regarding "Organization Details Document for developing Integrated Water and Crop Information Management System (IWCIMS)" by Ministry of Jal Shakti, New Delhi on 5th May, 2022.
- **Dr. K. K. Singh**, Sc. 'G', chaired the "9th meeting of Project Monitoring and Advisory Committee (PMAC)" of IMD on 2nd May, 2022 to monitor the progress of the **projects under ACROSS-IMD** and to suggest suitable remedial measures for successful implementation of the activities.
- **Dr. M. Mohapatra**, DG, IMD participated in the "WMO Secretary General Briefing Session" on 4th May, 2022.
- **Dr. M. Mohapatra**, DG, IMD participated in the meeting with Director, INCOIS under the chairmanship of Secretary, MoES to finalise proposal for enhancement of observations, modeling and data reception system for generation and dissemination of customized bulletins for safe offshore operations on 10th May, 2022.
- **Dr. M. Mohapatra**, DG, IMD participated in the meeting of the National Executive Committee to **review preparedness for Severe Cyclonic Storm 'ASANI' over west central Bay of Bengal** on 10th May, 2022.
- **Dr. Pulak Guhathakurta**, Sc. 'F' attended the "**TEG Meeting of Vector Borne Disease I- NIMR- Sharing of Vector Borne Disease Deliverables (HAP) to TEG VBD**" under the National Programme on Climate Change and Human Health (NPCCHH) on 10th May, 2022.
- **Dr. M. Mohapatra**, DG, IMD participated as Chief Guest in the **National Technology Day, 2022** celebrations organised by National Council for Cement and Building Materials (NCCBM), Ballabgarh, Haryana on 11th May, 2022.
- **Dr. R. K. Jenamani**, Sc. 'F' attended and presented IMD input on "Monitoring and Forecasting Climatic and Weather conditions causing Forest fire and its further behaviour" at NDMA's state level consultative Workshop on "Forest Fire Management in India" on 11th May, 2022 at India International Centre, New Delhi.
- **Dr. D. R Pattanaik**, Sc. 'F' has participated in first Meeting of the "Bay of Bengal Initiative of the Multi-Sectoral Technical and Economic Co-operation (BIMSTEC)", at NDMA Bhawan, on 12th May, 2022.
- **Dr. M. Mohapatra**, DG, IMD and **Dr. K. Sathi Devi**, Sc. 'F' participated in the meeting to review the preparedness and other arrangements for '**Shri Amar Nath ji Yatra 2022**' under Chairmanship of Union Home Secretary through video conference on 13th May, 2022.

- **Dr. M. Mohapatra**, DG, IMD participated in the meeting with **Dr. Kaushik Sarkar**, Director, Institute for Malaria & Climate Solutions (IMACS), regarding "**Standardizing climate-based actions for vector borne diseases**" on 17th May, 2022.
- **Dr. Geeta Agnihotri**, Sc. 'F' and **Shri A. Prasad**, Sc. 'D' attended "**Stake Holders Meeting on Flood Forecasting**" by CWC, Bengaluru held on 17th May, 2022.
- **Dr. M. Mohapatra**, DG, IMD participated in the annual conference of Relief Commissioners/Secretaries, Department of Disaster Management of States/UTs to **review the Status of Preparedness for South-West Monsoon 2022** at New Delhi on 18-19 May, 2022 and made a presentation.
- Dr. Kripan Ghosh, Sc. 'F' attended "State level kharif (pre-season) review meeting 2022 (राज्यस्तरीय खरिप हंगामपूर्व आढावा बैठक -2022) of Maharashtra" through virtual mode on 19th May, 2022.
- **Dr. M. Mohapatra**, DG, IMD addressed the Valedictory Session of the Face-to-Face Training program on "Climate Information for Disaster resilient Agriculture" organized at ICAR-IISS, Bhopal on 20th May, 2022.
- **Dr. M. Mohapatra**, DG, IMD participated in the Inaugural Session of the training on "Seasonal Prediction of Operational Services in south Asia" on 23rd May, 2022.
- **Dr. M. Mohapatra**, DG, IMD participated in the "WCSSP India Executive Committee Meeting" on 23rd May, 2022.
- **Dr. M. Mohapatra**, DG, IMD participated in the "**Systematic Observations and Financing Facilities**" Second Meeting of WMO on 24th May, 2022.
- **Dr. Rajavel Manickam**, Sc. 'E' attended meeting on "**Implementation plan of IMD with regard to integration**" with Project Director, FRUITS on 25th May, 2022.
- **Dr. M. Mohapatra**, DG, IMD participated in the meeting with **Dr. Kapil Kumar Narula**, CEO & Executive Director, CII Water Institute regarding Hydrological Evaluations and Meteorological Data on 25th May, 2022.
- **Dr. M. Mohapatra**, DG, IMD participated in the meeting with **Shri Abhinav Saxena**, Adani Power on 26th May, 2022 for weather services to renewable energy sector.
- **Dr. Kuldeep Srivastava**, Sc. 'E' attended VC meeting on "**NSDI Nodal Officers and State SDI Pls**" meeting on 26th May, 2022 regarding **technical progress, upcoming action plan** for 2022-23, and NSDI/SSDI activities in the next phase of the initiative.
- **Dr. M. Mohapatra**, DG, IMD participated in the meeting with Shri A. R. Subbiah, Director, RIMES Program Unit regarding **Protocol & Procedures** on IMD Rimes Unit, IRU on 27th May, 2022.
- **Dr. M. Mohapatra**, DG, IMD inaugurated the "Aviation Forecasting Refresher Course" at MWO, Palam on 30th May, 2022.







Dr. M. Mohapatra, DG, IMD participated in the "19th Research Advisory Committee (RAC) of SAMEER" through hybrid mode on 30th May, 2022.

Shri B. P. Yadav, Sc. 'F', Shri Rahul Saxena, Sc. 'F', Dr. A. K. Das, Sc. 'E', Shri S. K. Manik, Sc. 'C', Shri Asok Raja, Sc. 'C' and Ms. Hemlata Bharwani, Sc. 'C'along with officials of NWP, NCMRWF, IITM and all RMC's, MC's, FMO'S attended the Meeting on 'Operational Committee on NWP Research' on 30th May, 2022.



NWP Meeting on 30 May 2022

- **Dr. M. Mohapatra**, DG, IMD participated in the meeting under the Chairmanship of Hon'ble Home Minister to **review the flood preparedness in the country** at New Delhi on 2nd June, 2022.
- **Dr. M. Mohapatra**, DG, IMD participated in the meeting under the Chairmanship of Hon'ble Union Home Minister to **review the progress of arrangements for Shri Amarnath ji Yatra** at North Block, New Delhi on 3rd June, 2022.
- **Dr. Kripan Ghosh**, Sc. 'F' attended the Brainstorming session on "**Agroclimatic Atlas of India: A revisit**" organized by ICAR-CRIDA under AICRPAM project on 3rd June, 2022.
- **Shri S. C. Bhan**, Sc. 'F' and **Shri H. S. Sawhney**, Sc. 'E' attended a Meeting held under the Chairmanship of **Shri Lav Aggarwal**, Joint Secretary (PH), Ministry of Health & Family Welfare to discuss the Inter-Ministerial declaration between Stakeholders and proposed action for "**One Health**" activity on 7th June, 2022 at Nirman Bhawan, New Delhi.
- **Dr. M. Mohapatra**, DG, IMD participated in the Virtual meeting with DG, Hydrocarbon to discuss the project proposal for augmentation of observations for generating customized forecast for offshore exploration & production operators on 8th June, 2022.
- **Dr. M. Mohapatra**, DG, IMD participated in the celebration programme on the occasion of '**World Ocean Day**' under Azadi Ka Amrut Mahotsav on 8th June, 2022.
- **Dr. Kripan Ghosh**, Sc. 'F' attended the Pradhanmantri Fasal Bima Yojana (PMFBY) "**State Level Crop Insurance Coordination Committee meeting**" organized by Commissionerate of Agriculture, Pune, Maharashtra on 8th June, 2022.
- **Dr. M. Mohapatra**, DG, IMD participated in the 1st meeting of Indian Ocean Rim Association (IORA) Working Group on "**Disaster Risk Management**" at NDMA Bhawan, New Delhi on 9th June, 2022 along with other senior officers of IMD.

- **Dr. S. D. Attri**, Sc. 'G' participated through VC in WMO/GAW Implementation plan meeting on 13th June, 2022.
- **Dr. S. D. Attri**, Sc. 'G' participated in meeting regarding formulation of plan for organisation of an International **Conference cum Exhibition on Akash Tattva** chaired by the Hon'ble Minister, MoES on 16^{th} June, 2022
- **Shri Manmohan Singh**, Sc. 'F' participated in the meeting regarding ensuing "**South West Monsoon 2022**" organized by Haryana State Disaster Management Authority (SDMA) held at Mini Secretariat Haryana, Chandigarh on 15th June, 2022.
- **Dr. Kripan Ghosh**, Sc. 'F' attended the online meeting to discuss "**Development & deployment of Speech based system of mandi & weather information**" with officials from IMD, New Delhi and IIT, Madras on 15th June, 2022.
- **Dr. M. Mohapatra**, DG, IMD participated in "WMO's Cordination Group for Meteorological satellites (CGMS)-50" meeting on 15th June, 2022 and special event on 21st June, 2022.
- **Dr. Kuldeep Srivastava**, Sc. 'E' attended "**TT GISC Meeting**" conducted by World Meteorological Organization (WMO) on 16th June, 2022 in virtual mode regarding annual status report.
- **Dr. Kripan Ghosh**, Sc. 'F' attended the online meeting to discuss about "**Water management and crop health project**" with officials from CRS, IMD, Pune and IIT, Bombay on 16th June, 2022.
- **Dr. S. D. Attri**, Sc. 'G' attended "**Industrial Decarbonisation Summit 2022**" in New Delhi which was inaugurated by Hon'ble Union Minister, **Shri Nitin Gagkari** 16th June 2022.



Union Minister, Shri Nitin Gagkari, Dr. S. D. Attri and others during the Summit

Shri Raja Acharya, Met. 'A' participated in the "WMO Third High-Level Virtual Session of the OCP" and Launch of "White Paper #2 on Future of National Meteorological or Hydrometeorological Services-Evolving Roles and Responsibilities" on 20th June, 2022.

Dr. M. Mohapatra, DG, IMD along with other senior officers of IMD participated in One Day National Workshop on "**Dam Safety Act, 2021 for Dam Safety Governance in India**" at Dr. Ambedkar International Centre, 15, Janpath, New Delhi on 16th June, 2022. **Shri Shivinder Singh**, Sc. 'C' participated in the "**53**rd **meeting of Haryana State Drought Relief & Flood Control Board**" held under the chairmanship of Chief Secretary, Haryana held through Video Conferencing on 23rd June, 2022.







LECTURES/TALK

Dr. Ashutosh Kumar Misra, Sc. 'D' delivered a lecture on "**Role of Agrimet Division and GKMS services for the farming community**" to the faculty members and B.Sc. Agriculture students from Main Campus, University of Agricultural Sciences, Dharwad, Karnataka on 12th April, 2022 and Agriculture College, Bijapur, Karnataka on 22nd April, 2022 during their visit to CR&S, Pune.

Dr. M. Mohapatra, DG, IMD delivered a lecture as a distinguished speaker in the webinar on "Building Climate Resilience for the Most Heat Vulnerable: Strengthening Preparedness and Response" organized by NRDC on 6th April, 2022 and on 6th May, 2022.

Dr. Kripan Ghosh, Sc. 'F' delivered lecture on the topic "Strategies for Climatic Risk Assessment and its Management for Agriculture" on 6th April, 2022 through online mode in ICAR sponsored 21 days' Winter School on "Climate Smart Agriculture for Sustainable Production", conducted by the Centre for Advance Studies on Climate Change (CASCC), Dr. Rajendra Prasad Central Agricultural University, Pusa, Bihar, from 28th March-17th April, 2022.

Shri A. Prasad, Sc. 'D' delivered lecture on "**Weather Forecasting System during Floods**" to Home Guards Government of Karnataka undergoing Waterman ship Course on 19th May, 2022.

Dr. M. Mohapatra, DG, IMD delivered an invited talk on "Climate Change and Extreme Weather" on the occasion of the World Environment Day at CSIR-NISC PR, New Delhi on 6th June, 2022.



Dr. M. Mohapatra, DG, IMD delivered an online invited talk on "**Monsoon 2022-what to expect**" organized by Kerala State Disaster Management Authority on 10th June, 2022.



Dr. M. Mohapatra, DG, IMD participated and delivered Keynote address on "**How Can we Make Uttarakhand Climate Resilient**" organized by Uttarakhand Disaster Management Authority and Council on Energy, Environment and Water, Vasant Kunj, New Delhi on 15th June, 2022.

Dr. Kripan Ghosh, Sc. 'F', **Dr. Ashutosh Kumar Misra**, Sc. 'D' and **Dr. Asha Latwal**, Sc. 'C' attended a meeting regarding "**Integration of IMD Weather Forecast and Agromet Advisories at Maha Agritech Portal**" with the officials from Dept of Agriculture, Govt of Maharashtra, Maharashtra Remote Sensing Applications Center (MRSAC) Nagpur and AASD, New Delhi on 28th June, 2022.

WEBINAR

Dr. Kuldeep Srivastava, Sc. 'E', Shri Parmod Kumar, Sc. 'C' and **Ms. Komal Srivastava**, S. A. attended webinar on - "**METAVERSE- The future of Internet**" on 25th April, 2022 organized by Bureau of Indian standards.

TRAININGS

18th WMO's Tropical Cyclones Forecasters Training

18th Tropical Cyclones Forecasters Training 2022 was conducted by Regional Specialised Meteorological Centre (RSMC), New Delhi during 04-14 April through online mode. There were 65 participants including 15 from WMO/ESCAP Panel member countries and 51 from ACWCs, CWCs & coastal MCs & MOs, National Weather Forecasting Centre and RSMC New Delhi. WMO appreciated IMD for successful organisation of the training programme.

IMD organised Familiarization training (online mode) for Exploration and Production Operators on 2nd May with about 150 participants from Directorate General of Hydrocarbons, Indian Coast Guard, Office of Health, Safety & Environment, Oil Industry Safety Directorate, Indian Navy and operators including Oil & Natural Gas Corporation, Shell, Sun Petro, Invenire, Reliance, Adani etc. During the training lectures were arranged about basics of cyclones, various bulletins issued by IMD for marine community and customised products developed for safe offshore operation.

Web of Science training

MoES has subscribed to **Web of Science** for its institutes as part of Digital Earth Consortium. To best utilize this source, five sessions of training on different topics were held during the quarter on 18th May, 24th May, 31st May, 8th June and 14th June, 2022.

PANEL DISCUSSION

Dr. M. Mohapatra, DG, IMD participated as Panelist in the Recording of the Panel discussion "**Aapda Ka Samna**" on the topic "**Cyclone Warning and Rescue**" at DD National on 27th April, 2022.

NATIONAL / INTERNATIONAL COLLABORATION

Agrimet Division, IMD, Pune organised a five-day workshop on "Operational procedures for preparation of agromet







advisories: knowledge and experiences sharing workshop" in collaboration with Regional Integrated Multi-Hazard Early Warning System (RIMES) and UK Met Office (UKMO) for the officials of Bangladesh and Nepal during 30th May-3rd June, 2022. **Dr. S. D. Attri**, Sc. 'G' inaugurated the workshop.



International Technical Discussion on "SAsiaFFGS Enhanced with Landslide Hazard Assessment Capability - Training of Forecasters" was held on 3rd June, 2022.



Technical Workshop on "Landslide Hazard Assessment Capability"

Shri B. P. Yadav, Sc. 'F', Shri Rahul Saxena, Sc. 'F', Dr. A. K. Das, Sc. 'E', Shri S. K. Manik, Sc. 'C', Shri Asok Raja, Sc. 'C' and Ms. Hemlata Bharwani, Sc. 'C' participated in the event.

ACHIEVEMENTS / APPRECIATIONS / AWARDS RECEIVED

Dr. Mrutyunjay Mohapatra, DG, IMD was conferred upon "Shrikshetra Samman - 2022" for bringing paradigm shift in Cyclone Warning Services and for his laudable contribution to society by voluntary service organization- Shree Shrikshetra Soochana, Puri during the 20th Folk Fair and 13th Krishi Fair-2022 at Puri, Odisha.

Shrikshetra Samman-2022



Shrikshetra Samman-2022 conferred upon DG, IMD

WCDM-DRR AWARD

India Meteorological Department was conferred "World Congress Disaster Management-Disaster Risk Reduction Award" for outstanding contribution in weather forecasting and early warning services for cyclones and extreme weather events on 22nd June, 2022. Dr. S. D. Attri, Sc. 'G' received this award.





Dr. S. D. Attri receiving the award

Cyclone Warning Services of IMD earned 'place among 100 Innovations' that transformed India in a book named "INDIAN INNOVATION" authored by Shri D. C. Sharma.

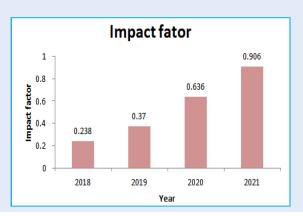
Achievements of International Research Journal 'MAUSAM'

India Meteorological Department's Quarterly International Research Journal 'MAUSAM' has been made online (https://mausamjournal.imd.gov.in/index.php/MAUSAM) since 2021. Since then the journal has been making its way to advancement in the world of Scientific Journals. A few breakthrough points are:

- All the research articles (since the origin of 'MAUSAM', 1950)
 have been uploaded on the website and the Digital Object
 Identifiers (DOI's) for all of them have been activated and
 are working successfully.
- The **impact factor** the journal rated by several agencies has been increased and at the maximum for the past three years.

The journal is rated by:

Journal Citation Rankings (JCR): 0.636 to **0.906 in 2021,** National Academy of Agricultural Sciences: 6.37 to **6.64 in 2022.**









NAAS rating 6.64 6.6 - 6.5 - 6.4 6.8 - 6.2 - 6.1 2020 2021 Year

Infrastructure Development & Installations

NEW PROJECTS/SCHEMES/PROGRAMMES APPROVED/ INITIATED

IMD has established a network of 30 AWS and 30 ARG in Kerala in 2020. In order to augment the surface observation network in Kerala, IMD has proposed the installation of 85 AWS in Kerala under 400 AWS project.



AWS was installed in Kerala

Under the flagship Flash Flood Guidance Services for South Asia programme, Integration of Landslide Susceptibility Module into Flash Flood Guidance System for better predictability of landslide associated flash floods in the vulnerable hilly regions of Indian Subcontinent. Integration of Urban Flood Module into Flash Flood Guidance System for real time flood monitoring of urban cities. In the month of June, 2022 - Four AWS was installed in Pune District, Maharashtra by IMD, Pune.

Map display, subdivision-wise option, registered page and login page in Nowcast Verification Portal have been added on IMD's website. Also Web-page for Past- year's monsoon data has been created for M. C. Jaipur.

IMD Stores Dashboard has been launched to show the **live status of the entries** of all fixed assets including (Desktop, Printer, Scanner, UPS, Photocopiers, and Air Conditioners etc.), Obsolete Items and Historic/Artistic Value items. Entries are being done by all sections of IMD Offices in STORE INVENTORY after visiting **LOGIN BY SECTION in METNET**.

Implementation of Revised procedure for flow of funds under Central Sector Scheme was held at MoES on 12th April, 2022.

राजभाषा अनुभाग

राजभाषायी निरीक्षण

दिनांक 21 अप्रैल, 2022 को प्रादेशिक मौसम केंद्र- चेन्नै, मौसम केंद्र- हैदराबाद तथा मौसम केंद्र-तिरूवनतंपुरम का राजभाषायी ई-निरीक्षण श्रीमती सरिता जोशी, उप निदेशक (रा.भा.) द्वारा किया गया जिसमें पृथ्वी विज्ञान मंत्रालय से श्री मनोज आबूसरिया, संयुक्त निदेशक (रा.भा.) तथा मुख्यालय से डॉ. एस. डी. अत्री, वैज्ञानिक 'जी' भी शामिल रहे।

माननीय संसदीय राजभाषा समिति की दूसरी उपसमिति द्वारा दिनांक 29 अप्रैल, 2022 को मौसम केंद्र-चंडीगढ का निरीक्षण किया गया।



श्रीमती इंदिरा मूर्ति, श्रीमती सरिता जोशी, श्री मनोज आबूसरिया, श्री सचिन कदयान, डॉ. एस. डी. अत्री, श्री चरण सिंह तथा श्री मनमोहन सिंह निरीक्षण के दौरान

इस निरीक्षण में मंत्रालय की तरफ से श्रीमती इंदिरा मूर्ति, संयुक्त सचिव और श्री मनोज आब्सरिया, संयुक्तम निदेशक (रा.भा.) तथा मुख्यालय की तरफ से डॉ. शिव देव अत्री, वैज्ञानिक 'जी' और श्रीमती सरिता जोशी, उप निदेशक (रा.भा.), श्री सचिन कदयान, कनिष्ठी अनुवाद अधिकारी ने भाग लिया। निरीक्षण सफल एवं संतोषजनक रहा।

माननीय संसदीय राजभाषा समिति की दूसरी उपसमिति द्वारा दिनांक 4 अप्रैल, 2022 को हाइड्रोजन फैक्ट्री आगरा का निरीक्षण किया गया। इस निरीक्षण में मंत्रालय से श्रीमती इंदिरा मूर्ति, संयुक्तर सचिव और श्री मनोज आबूसरिया, संयुक्ती निदेशक (रा.भा) और मुख्यालय से डॉ. के. कि. सिंह, वैज्ञानिक 'जी' और श्रीमती सरिता जोशी, उपनिदेशक (रा.भा.) ने भाग लिया। निरीक्षण सफल एवं संतोषजनक रहा।



श्रीमती इंदिरा मूर्ति, श्रीमती सरिता जोशी, श्री मनोज आबूसरिया तथा डॉ. के. के. सिंह निरीक्षण के दौरान







राजभाषा नीति का कार्यान्वयन

मुख्यालय की राजभाषा कार्यान्वयन समिति की वर्ष 2022 की दूसरी तिमाही बैठक (158^{वीं} तिमाही बैठक) महानिदेशक महोदय की अनुमित से **डॉ. शिवदेव अत्री**, वैज्ञानिक 'जी' की अध्यक्षता में दिनांक 29 जून, 2022 को आयोजित की गई। इस बैठक में मुख्यालय के अधिकारी तथा उपकार्यालयों के प्रमुख/ प्रतिनिधि वर्च्अल माध्यम से उपस्थित रहे।

पृथ्वी विज्ञान मंत्रालय द्वारा दिनांक 29 जून, 2022 को **सुश्री इंदिरा** मूर्ति, संयुक्त सचिव महोदया की अध्यक्षता में आयोजित राजभाषा कार्यान्वयन समिति की बैठक में **डॉ. एस. डी. अत्री**, वैज्ञानिक 'जी' / कार्यकारी महानिदेशक तथा श्रीमती सरिता जोशी, उपनिदेशक (रा.भा.) ने भारत मौसम विज्ञान विभाग का प्रतिनिधित्व किया।

मौसम केंद्र-जयपुर द्वारा दिनांक 28 जून, 2022 को आयोजित हिंदी कार्यशाला में श्रीमती सरिता जोशी, उपनिदेशक (रा.भा.) ने स्वागत भाषण दिया।

Research & Publications

Twenty (20) research articles have been published in **MAUSAM** (Vol. 73, No. 2), April, 2022 issue.

Ch. Sridevi, P. Suneetha, K. K. Singh, V. R. Durai, D. R. Pattanaik and A. K. Das, 2022, "Evaluation of forecast skill of GFS T1534 for heavy rainfall events of Monsoon 2017 at district level across India", MAUSAM, 73, 2, 217-228, https://doi.org/10.54302/mausam.v73i2.5473.

Mukhtar Ahmed, Bappa Das, Sonam Lotus and Mahboob Ali, 2022, "A study on frequency of western disturbances and precipitation trends over Jammu & Kashmir, India: 1980-2019", MAUSAM, 73, 2, 283-294, https://doi.org/10.54302/mausam.v73i2.698.

Priyanka Singh and Naresh Kumar, 2022, "Analysis of trend and temporal variability in rainfall over Northeast India", *MAUSAM*, 73, 2, 307-314, https://doi.org/10.54302/ mausam.v73i2.5479.

Ashok Kumar Das, B. P. Yadav, Charu Charu and Jyotsana Dhingra, 2022, "Evaluation of performance of WRF (ARW) and GFS for Quantitative Precipitation Forecast and its value addition over India river sub-basins during recent years", MAUSAM, 73, 2, 315-340, https://doi.org/10.54302/mausam.v73i2.5480.

Mohammad Suhail Meer, Anoop Kumar Mishra and Kattukota Nagamani, 2022, "Land use land cover changes on Asias largest freshwater lake and their impact on society and environment", *Arabian Journal of Geosciences*, **15**, 4, 1-11, https://doi.org/10.1007/s12517-022-10094-6.

C. T. Sabeerali, O. P. Sreejith, Nachiketa Acharya, Divya E Surendran and D. S. Pai, "Seasonal Forecasting of Tropical Cyclones over the Bay of Bengal using a Hybrid Statistical/Dynamical Model", International Journal of Climatology, 1, 2, 1-14, https://doi.org/10.1002/joc.7651.

Robert Neal, Galina Guentchev, T. Arulalan, J. Oanne Robbins, Ric Crocker, Ashis Mitra and A. Jayakumar, 2022, "The application of predefined weather patterns over India within probabilistic medium-range forecasting tools for high-impact weather" *Meteorological Applications*, **29**, 3, 1-22, https://doi.org/10.1002/met.2083.

Rahul Sreedhar, Avnish Varshney and M. Dhanya, "Sugarcane crop classification using time series analysis of optical and SAR sentinel images: a deep learning approach", Remote Sensing Letters, 13, 8, 812-821, https://doi.org/10.1080/2150704X.2022.2088254.

Shyama Mohanty, Raghu Nadimpalli, Sudheer Joseph, Akhil Srivastava, Ananda K. Das, Uma C. Mohanty and S. Sil, "Influence of the ocean on tropical cyclone intensity using a high resolution coupled atmosphere ocean model: case study of very severe cyclonic storm Ockhi over the North Indian Ocean", Quarterly Journal of Royal Meteorological Society, 2022, 1-17, https://doi.org/10.1002/qj.4303.

Kalshetti, M., Chattopadhyay, R., Hunt, K., R. Phani M. R., Joseph, S., D. R. Pattanaik and A. K. Sahai, 2022, "Eddy transport, wave-mean flow interaction, and Eddy forcing during the 2013 Uttarakhand extreme event in the reanalysis and S2S retrospective forecast data", International Journal of Climatology, https://doi.org/10.1002/joc.7706.

D. Kumar, A. Tiwari, V. Agarwal and **K. Srivastava**, 2022, "Investigation of atmospheric water vapour condensation and characteristic analysis as potable water", International Journal of Environmental Science and Technology, 2022, (https://doi.org/10.1007/s13762-022-04199-4).

Brahm Parkash Yadav, S. K. Asok Raja, Rahul Saxena, Hemlata Bharwani, Ashok Kumar Das, Ram Kumar Giri, S. K. Manik and Deepak Yadav, 2022, "Recent Advances in Pluvial Flash Flood Forecasting of India", Innovative Trends in Hydrological and Environmental Systems, LNCE, 234, 605–643 https://doi.org/10.1007/978-981-19-0304-5_44.

Media Interaction

Shri Manmohan Singh, Sc. 'F' participated in a live online talk on "**Heat Wave and Food Security**" in a current affairs programme aired on Doordarshan Jalandhar on 30th April, 2022.

Dr. M. Mohapatra, DG, IMD participated in the Discussion on "**Heat Waves and Climate Change**" during Prime Time English Show at Sansad TV – Perspective on 2nd May, 2022.

Dr. M. Mohapatra, DG, IMD participated in the recording by All India Radio on "**Monsoon Preparedness**, **Cyclone and Heat Wave**" on 9th May, 2022.

Dr. M. Mohapatra, DG, IMD participated in the recording for the Special Prime Time Hindi Show on the topic "Extreme Weather condition and Global Warming" of Sansad TV on 19th May, 2022







Dr. Geeta Agnihotri, Sc. 'E' answered about **135 Weather Enquiries** by Electronic and Print Media during the quarter.

Dr. M. Mohapatra, DG, IMD participated in the Recording of the virtual discussion about "**Southwest monsoon**" by Doordarshan on 26th May, 2022.

Special Interviews on "Prevailing weather and monsoon" were given by Shri K. S. Hosalikar, Sc. 'G' to media and stake holders.



Dr. M. Mohapatra, DG, IMD and chair, South Asia Hydromet Forum (SAHF) participated in the Podcast recording with Shri Karma Duphu, Co-Chair, SAHF on 26th May, 2022 organised by RIMES.

Shri Tamal Mukherjee, Senior Producer, Current Affairs, CAN Mediacorp, Singapore shot a brief interview of **Dr. Mrutyunjay Mohapatra**, **DG**, **IMD** for a documentary on "Heat wave, climate change and impact on food security" on 3rd June, 2022.

Mr. Hye Ryeon Chung, Reporter from TBS News Station, South Korea interviewed **Dr. M. Mohapatra**, DG, IMD regarding monsoon on 4th June, 2022.

Shri Manmohan Singh, Sc. 'F' participated in a live online talk show on the occasion of '**World Environment Day 2022**' on Doordarshan Chandigarh on 5th June, 2022.

Dr. M. Mohapatra, DG, IMD joined live Interview for the show 'Bloomberg Markets Asia' with anchors Rishaad Salamat and Haslinda Amin of Bloomberg TV on 16th June, 2022.

A special interview with **Dr. M. Mohapatra**, DG, IMD on the subject "**Khush Haal Jiwan Ke Liye Avashyak Hai Mausam Ka Purvanuman**" was published in CSIR July Monthly Issue.

IMD issued daily weather forecasting video of about 5 minutes duration in English & Hindi through YouTube, Facebook, Twitter and IMD website. Bulletins and Warnings along with graphics were also communicated through Social Media including Facebook, Twitter, Instagram, YouTube and IMD Blog page.

Weekly Videos on extended range forecast were issued every Thursday through website and social media (Facebook, Twitter, YouTube etc.). The forecast videos in regional language were issued by regional offices of IMD regularly.

Visitors

Shri K. S. Kandasamy, IAS, Director, and **Shri M. S. Vaidyanathan**, Watershed Management Expert Disaster Management, Tamil Nadu Disaster Risk Reduction Agency visited IMD on 22nd April, 2022 to seek cooperation from IMD in establishing automatic weather stations and radars in Tamilnadu state for effective management of various hydrometeorological disasters. The team visited various technical divisions of IMD.

About **121 visitors** including students from Delhi NCR visited the Central Hydromet Observatory during this quarter.



Students from Delhi NCR to the Central Hydromet Observatory

Dr. M. Mohapatra, DG, IMD had a meeting with **G. Rambabu**, Commodore (Naval and Meteorology), Directorate of Naval Oceanology and Meteorology, Indian Navy to **improve coordination between the two organizations** on 14th June, 2022.



Dr. M. Mohapatra, DG, IMD with G. Rambabu, Commodore (Naval and Meteorology)

FMI Officials visited IMD for project mode co-operation in environmental Monitoring and forecasting.



Dr. M. Mohapatra, DG, IMD with FMI Officials





