

**Vigyan Samachar: MoES News**

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**Scientific seminar on extreme weather and climate in Hindi organized by the National Centre for Medium-Range Weather Forecasting, Noida**

The National Centre for Medium-Range Weather Forecasting (NCMRWF), Ministry of Sciences, Government of India organized a one-day seminar on extreme weather and climate on 3 February 2020. The aim of the event was to make the public aware of the Ministry of Earth Sciences-related topics like tropical cyclones, fog, air pollution, heavy rains, droughts, floods and heat. The entire discussion was held in Hindi and the speakers made their presentations in Hindi as well.



Due to global warming over the past few years, weather cycles around the world have been affected. Loss of life from events like unseasonable rains, extraordinary cold/heat and landslides has become a major concern for environmentalists and meteorologists. In the seminar, senior scientists met and brainstormed on these issues so that some positive solutions can be thought of for the future.

In the first session of the seminar, Dr. Devendra Pradhan of India Meteorological Department analysed the role of Doppler weather radar and satellite in cyclone

detection systems. Dr. Pradhan informed that after the installation of the Doppler radar network and satellites, the forecast of cyclones have become accurate and people can now be informed of such occurrence well in advance.

Dr. Pradhan also said that recently 7 more Dopplers radars on the east coast of India and 4 on the west coast have been installed. So far, 30 radars have been installed in India, and it is estimated that in the next three to four years, 50–55 will be installed in total. The forecast of cyclonic storms and the time and place of their collision will be made more accurately.

S Indira Rani, a Scientist of NCMRWF, described two important polar-orbiting satellites, FY-3B and FY-3C, that together cover the entire world once in every hour. One of these satellites always covers six hours of assimilation cycle passing over Indian territory.

In the second session, Dr. HD Atri of the India Meteorological Department described the problems like climate change, air pollution and fog and how they affect lifeforms and their flow. Dr. Atri also said that according to the Inter-Governmental Panel on Climate Change, the global temperature will increase between 0.5 and 2.5°C by 2050; whereas by 2100 this projected increase would be between 1.4 and 4.8°C. Countries around the world should strive to control global warming, which was also discussed in 2015 Paris Agreement and was described as the 2030 Opportunity. Dr. Atri also said that the man-made means of the bio-demonstration industry must control agriculture, energetics, air pollution etc. arising out of domestic sources. To deal with the problem of fog, Dr. Atri suggested spraying silver iodide or calcium iodide.

In the third session, NCMRWF's scientist Devashish Mohapatra said that the forecasts for at least 15 days in advance with the help of extended range prediction is now possible.

Scientists Harvir Singh, Raghavendra Devender and Anumeha Dubey of National Medium-Term Weather Forecast Center discussed that potential forecast for higher temperatures has improved significantly due to the noise correction.

The seminar offered informative, interesting, factual scientific material along with latest developmental activities discussed in Hindi, which would help a wide range of people seeking such information. This will make general public aware and also attract researchers interested in such problems in bringing out suitable solutions.

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