



### FROM THE PRESIDENT'S DESK

We are passing through very difficult times due to the sudden outbreak of Covid19 which has created threats to life as well as economy of the world. We have to face its fury because of its rapid spread and the short time it has given for resilience building. It is a completely new virus which scientists are still trying to understand. On the other hand, climate change is an accepted scientific phenomenon of a longer time scale, and its negative effects such as rising mean temperatures and associated weather phenomena such as increasing occurrences of temperature and rainfall extremes, super-cyclones, cloud bursts and other disastrous consequences including snow melting and sea level rise are being experienced by us. Although exact causes of Covid19 and its fast spread are being debated across the world, it is difficult to isolate its emergence from the climate and biodiversity crises. Due to large scale deforestation and vanishing of wetlands, humans are often in precarious health, in contact with new pathogens. There are examples of Ebola and Severe Acute Respiratory Syndrome (SARS) with us. We have a lot to learn from Covid19, the primary one being Resilience Building to face the imminent disasters of climate change. It is believed that the countrywide lock down in India and elsewhere will provide the scientists adequate opportunity to collect relevant environmental and weather data which can be scientifically analysed for the good of the society.

In spite of the current pandemic atmosphere, VayuMandal has made its date with the appearance of VM46(1) on time. This issue of VayuMandal includes research papers on wide range of topics which affect our lives such as threat of earthquake, measurement of (Integrated) Precipitable Water Vapour (PWV), effective hail mitigation, extreme temperature & rainfall events and useful watershed management. The first review paper expresses seismic concerns about the statues taller than 100 m, especially the possibilities of occurrence of major earthquakes in the nearby faults and soil liquefaction closer to these statues. The second paper discusses IMD network of Global Navigation Satellite System (GNSS) ground based stations for real time measurement of IPWV as part of modernisation of observational network. Very useful meteorological inputs for now-casting and monitoring of monsoon activities with sufficient lead time from hours to days have been highlighted here. In another paper related to PWV, an empirical relation between water-vapour-weighted mean temperature and surface temperature derived using radiosonde data and geographical conditions of Indian subcontinent results in better PWV estimates. Taking Manali watershed of Beas river basin as an example, it has been demonstrated in the third paper that Land use map, Soil parent material map, Slope map and Aspect map along with morphometric analysis of the study area are helpful for watershed management leading to sustainable development of the study area. The fourth paper in this issue of VayuMandal describes well coordinated and orderly network of activities of the Systems Approach leading to safe and efficient hail-mitigation operation. Two of the papers in this issue are related to extremes in surface temperature and rainfall. Based on the reports of IMD for the period 1981-2015, heat and cold waves over India have been discussed which have caused human fatalities and significant socio-economic losses. An attempt has been made to find out potential thermodynamic predictors for the occurrence of heavy rainfall over some meteorological sub-divisions in Uttar Pradesh and Bihar using upper air radiosonde and radiowind (RS/RW) data during 2001-2005.

So far, VayuMandal does not have any system for online editorial management. We are taking care of the whole reviewing process manually. Formatting is also done by IMS office staff. Day-by-day, the number of papers received by this IMS journal is increasing. It is hoped that in near future, IMS will resort to online editorial management system so that the quality as well as the visibility of the journal will enhance. In spite of several limitations, our team spirit comprising of the cooperation from the authors, reviewers and the editorial team, is keeping us moving.