

# India needs own weather model

DC CORRESPONDENT  
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Climate change is not just a science problem anymore and is intertwined with many issues including international policy, health, water security, food security, clean air and more, said former Indian Space Research Organisation chairman K. Kasturirangan.

He called for more participation from Indian students and pointed out that research on climate had been limited and was not a priority for many students.

Speaking at the two-day national workshop on "Science of Climate Change: Indian Ocean and Monsoon at Indian National Centre for Ocean Information Services", he stressed that India still did not have its own weather model and that the American model had been modified to suit Indian conditions.

"The Indian climate science community has been using climate models developed abroad, but with adoption to the regional characteristics. There were nine Indian scientists who contributed to the Inter-governmental Panel for Climate Change assessment report, five as lead authors. Considering the amount of expertise available in the country, I am wondering why we do not have a climate model developed in India?" Mr Kasturirangan said.

He said that at least by 2015, a Petaflop computing capability for climate modeling was essential. "Weather prediction is a



From left: Dr R. Krishnan, CCCR-IITM director, and Shailesh Nayak (white shirt), secretary to the Union ministry of earth sciences, clap while former Isro chairman K. Kasturirangan lights the lamp at the INCOIS workshop. Dr S. Shenoi, INCOIS director, can also be seen applauding.

— DC

## EL NINO EFFECT NOT RULED OUT, WILL BE DETECTED IN WINTER

Hyderabad: Clearing the air on the impact of El Nino on the current state of the Southwest monsoon, Dr Shailesh Nayak, secretary to the ministry of earth sciences, said that so far, as predicted by the IMD, there has been no

effect. But, experts have not ruled out the possibility of the El Nino's effect and said that it can only be detected in November and December, when the conditions are favourable for cyclonic formations.

computationally intensive problem. Establishing Petaflop computing capability will lead to significant improvements in weather forecasts," he said.

He also said that it was unfortunate that research on climate change was not a top priority for Indian students.

He said that in India, the surface temperature is often looked at as a proxy to assess the impact of climate change. "Consider the monsoon and associated rainfall. Our nation's agriculture and economy depend on the monsoon. It is important to know how rain we would receive."

# Scientists say weather extremes not accidental

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The past one year witnessed over five cyclones, floods in Uttarakhand, heavy rainfall in Gujarat and the deficit monsoon in the south among other weather extremes, indicating a need to analyse the weather situation across the country.

Future projections of the South Asian rainfall, based on the Inter-governmental Panel for Climate Change models, exhibit a wide range of variations and uncertainties. Many scientists agree that these recent weather extremes are not

● **Future projections of the South Asian rainfall, based on the Inter-governmental Panel for Climate Change climate models, exhibit a wide range of variations and uncertainties**

accidental.

While the US accounts for 33 per cent of the global green house gas emissions, Asia is fast approaching this level. India and China especially account for the greatest volume of black carbon emissions, almost 35 per cent.

"The IPCC's fifth assessment report warns that if

global carbon dioxide emissions continue to rise at the current rate, the effects will be disastrous leading to increasingly rising sea levels, accelerated melting of glaciers, droughts and floods, and increased stress on nature due to rapidly shifting climate zones. Carbon dioxide, aerosol black carbon and similar warming agents are mainly responsible for the rise in the planet's surface temperature. The effects of black carbon are yet to be understood fully," said K. Kasturirangan, former chairman of the Indian Space Research Organisation.