

**GOVERNMENT OF INDIA**  
**MINISTRY OF EARTH SCIENCES**  
**LOK SABHA**  
**UNSTARRED QUESTION NO. 973**  
**TO BE ANSWERED ON WEDNESDAY, 26<sup>TH</sup> JULY, 2023**

**PROCUREMENT OF SUPERCOMPUTERS FOR WEATHER MODELLING AND  
CLIMATE RESEARCH**

973. DR. SUKANTA MAJUMDAR:  
SHRI VINOD KUMAR SONKAR:  
SHRI RAJVEER SINGH (R.AJU BHAIYA):  
SHRI RAJA AMARESHWARA NAIK:  
SHRI BHOLA SINGH:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether the France-based advanced computing firm Eviden is awarded a \$100 million contract by the Ministry to deliver two new supercomputers;
- (b) if so, the details thereof;
- (c) whether the two new supercomputers have been procured for weather modelling and climate research;
- (d) if so, whether these supercomputers are expected to triple the computing capacity of the Indian Institute of Tropical Meteorology, Pune (IITM) and the National Center for Medium-Range Weather Forecast (NCMRWF);
- (e) if so, the details thereof; and
- (f) the other new initiatives taken by the Ministry for upgrading the weather and climate research in the country?

**ANSWER**  
**THE MINISTER OF EARTH SCIENCES**  
**(SHRI KIREN RIJJU)**

- (a) Yes Sir.
- (b) Eviden, the Atos business leading in advanced computing was awarded a contract of around \$100 Million by NCMRWF, on behalf of the Ministry of Earth Sciences, to build two new supercomputers dedicated to weather modelling and climate research for National Center for Medium-Range Weather Forecast and Indian Institute of Tropical Meteorology, Pune.

These systems, based on Eviden's Bull Sequana XH2000, will have a combined power capacity up to 21.3 Petaflops. Located in Noida, the NCMRWF supercomputer will have an 8.3-Petaflop computing capacity for Weather and Climate Modelling, to support advanced numerical weather prediction (NWP) research. This platform will bring together 2,100 CPU nodes with AMD EPYCTM7643 processors, 18 GPU nodes and will have 2PB all flash and 20PB disk-based storage. The supercomputer dedicated to the Indian Institute of Tropical Meteorology (IITM, Pune) will provide 13 Petaflops of computing power for atmosphere and climate research. It will integrate 3,000 CPU nodes using AMD EPYCTM 7643 processors and 26 GPU nodes and will have 3PB all flash and 29PB disk-based storage.

- (c) Yes.
- (d) In total the computing capability will increase by 3 times.
- (e) At existing computing facility at NCMRWF is 2.8Petaflops and at IITM is 4 Petaflops, respectively. The present augmentation will enhance the computing power at NCMRWF to 8.3 Petaflops and at IITM to 13Petaflops, respectively.
- (f) Augmentation of observational network across the country along with the computing facility has helped in upgrading the weather and climate research in the country.

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