

**GOVERNMENT OF INDIA
EARTH SCIENCES
LOK SABHA**

UNSTARRED QUESTION NO:3529

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HIGH PERFORMANCE COMPUTING SYSTEM

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Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether High Performance Computing (HPC) system has been implemented in the country;
- (b) if so, the details and salient features of the system and the manner in which farmers, fishermen and other stakeholders are benefited from the said system;
- (c) the details of funds sanctioned and released for the HPC; and
- (d) the details of funds utilized so far out of the sanctioned and released funds and the present status of the system?

Answer

MINISTER OF STATE FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTRY OF EARTH SCIENCES (SHRI Y.S. CHOWDARY)

(a) Yes Madam.

(b) High Performance Computing (HPC) clusters are implemented at 4 of our Earth System Science Organisation- Ministry of Earth Sciences (ESSO-MoES) institutions, viz., ESSO- India Meteorological Department (IMD), Delhi; ESSO- National Centre for Medium Range Weather Forecasting (NCMRWF), Noida; ESSO- Indian Institute of Tropical Meteorology (IITM), Pune and ESSO- Indian National Centre for Ocean Information Services (INCOIS), Hyderabad with a combined computing power of 1.2 petaflops for running coupled ocean – atmospheric climate model, Earth system model for future climate change scenarios, global /regional/ meso-scale data assimilation forecast models, global/regional ocean circulation models for generating operational service level products, by ESSO-IMD and ESSO-INCOIS.

Commissioning of HPC facility has already shown improvement in the weather prediction in various time scales. The recent predications of "HUD-HUD" cyclone, high impact weather over Jammu and Kashmir are some of the recent examples of improved forecasting capability. Based on these improved forecasting capability, advisories for farmers at district level and fisherman have also improved. These advisories are provided through various means like print media, web portal, Information Kiosks, SMS services, Integrated Voice Response Systems (IVRS), Electronic Display board, etc. in regional languages. Currently about 80 lakh farmers and more that 1.20 lakh fisherman are utilizing these advisories.

(c-d) The details of funds sanctioned and released for the HPC is as under.

Figures in crores

Total Funds sanctioned during	Phase I	Phase II	Total funds utilized
Phase I and Phase II			
Rs 934.16 (includes Rs. 135 from MEA	Rs. 232	Rs. 567.16	Rs 232.72
for setting up of Indo-Africa Centre)			