

**GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOK SABHA
UNSTARRED QUESTION NO. 1298
TO BE ANSWERED ON WEDNESDAY, 14TH DECEMBER, 2022**

SKILLED MANPOWER

1298. SHRIMATI CHINTA ANURADHA:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) the number of skilled manpower working in the field of earth sciences;
- (b) whether the demand for skilled manpower in the field exceeds the supply;
- (c) if so, the details thereof and the reasons for the same;
- (d) whether the Government has implemented any schemes to develop greater skilled manpower in the field; and
- (e) if so, the details thereof and if not, the reasons therefor ?

ANSWER

**THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR
MINISTRY OF SCIENCE AND TECHNOLOGY
AND EARTH SCIENCES
(DR. JITENDRA SINGH)**

- (a) Ministry of Earth Sciences (MoES) has the following organizations under its administrative control and the skilled manpower employed in these organizations are given in the table.
 - 1. India Meteorological Department (IMD, New Delhi).
 - 2. National Centre for Medium Range Weather Forecasting (NCMRWF, Noida).
 - 3. Indian Institute of Tropical Meteorology (IITM, Pune).
 - 4. Indian National Centre for Ocean Information Services (INCOIS, Hyderabad).
 - 5. National Centre for Polar & Ocean Research (NCPOR, Goa).
 - 6. Centre for Marine Living Resources and Ecology (CMLRE, Kochi).
 - 7. National Institute of Ocean Technology (NIOT, Chennai).
 - 8. National Centre for Coastal Research (NCCR, Chennai).
 - 9. National Centre for Earth Science Studies (NCESS, Thiruvananthapuram).
 - 10. National Centre for Seismology (NCS, New Delhi).

Skilled Manpower of Ministry of Earth Sciences including all the constituent institutions are as below:

S. No.	Groups of Posts	MOES + CMLRE + NCCR	NCMR WF	IMD	NIOT	NCPOR	INCOIS	IITM	NCESS	TOTAL
1	Group A	142	65	524	95	45	40	170	70	1182
2	Group B	113	15	3760	58	18	27	69	29	4089
3	Group C (including MTS)	74	17	2732	44	23	0	78	57	2947
	TOTAL	329	97	7016	197	86	67	317	156	8187

Ministry of Earth Sciences (MoES) primarily aimed to develop and improve capability to forecast, weather, climate and hazard related phenomena for societal, economic and environmental benefits including addressing the aspects relating to polar and climate change science and services. MoES is also responsible for development of technology towards the exploration and exploitation of marine resources in a sustainable way.

Following are missions through which the Ministry is providing services to the nation:

- Weather, Climate and Hydromet Services
 - Weather forecasts, advisories, warnings, Monsoon and Climate prediction,
- Ocean Services
 - Fishery advisories, ocean state forecasts, Tsunami warnings
- Ocean Resources, Survey and Technology Development
 - Non-living resources- Water, Energy and Minerals
 - Living resources, mapping, ocean biodiversity
 - Survey and Exploration of EEZ, Continental Shelf
- Seismological Services
 - Earthquake Detection and information, Geoscience research
- Polar Science
 - Scientific exploration of the three poles and linkages to Climate.

(b)-(c) No Sir. Demand for the skilled manpower in the earth sciences field is being met by the supply of such manpower by the academic institutions in the country, which have the earth sciences curriculum.

(d)-(e) Yes Sir. There has been a gradual increase in the allocation of funds for Research and development in the earth sciences. Towards attracting the students for conducting research in the field of earth sciences, the Ministry of Earth Sciences had started Development of Skilled Manpower in Earth System Sciences (DESK) program. DESK was initiated to create a large pool of trained and dedicated multidisciplinary earth system and climate research manpower in the country with in-depth hands-on expertise on individual physical processes of the land, ocean, atmosphere, biosphere and cryosphere with special emphasis on climate modeling. Besides, an International Training Centre for Operational Oceanography has been setup in Hyderabad for development of skills to conduct front ranking research in the field of Ocean Science.

Under Earth Science & Technology Cell (ESTC), MoES supports theme based focused network R&D activities involving multi institutions with focused objectives and definite deliverables that can be translated into operational use. It also helps towards capacity building and creating adequate expertise in various disciplines of earth system Science for the benefit of society and national development.

Under extramural funding, a set of five Project Appraisal and Monitoring Committees (PAMCs) and a Technology Research Board have been constituted for appraisal, review and monitoring of the various project proposals submitted by academicians within the country, for consideration for extramural funding. An Apex committee chaired by the Secretary has also been constituted to consider specific proposals recommended by these committees.

All these initiatives are expected to enhance the skill of the operational weather, climate, ocean state and multi-hazard services incrementally for accruing the societal benefits in terms of minimizing the loss of life and property. Further, MoES supports various capacity building programs in academic institutions in the country.
