### GOVERNMENT OF INDIA MINISTRY OF EARTH SCIENCES RAJYA SABHA

## UNSTARRED QUESTION No. 1006 TO BE ANSWERED ON MONDAY, MARCH 05, 2018

#### **EXPEDITIONS TO ANTARCTICA**

#### 1006. SHRI KAPIL SIBAL:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether it is a fact that expeditions to Antarctica have increased during the last three years, if so, the details thereof;
- (b) the details of persons and their qualifications who have gone on these expeditions;
- (c) the details of the base station in Antarctica, that is functional; and
- (d) whether during the last three years, any specific task has been assigned to the research team going to Antarctica on regular basis, if so, the details thereof along with expenditure incurred?

#### **ANSWER**

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

- (a) No, Sir. Every year only one expedition is launched.
- (b) Scientists/ Researchers from about 20 scientific organizations participate annually in the Antarctic expeditions who usually have Masters or Ph.D. degree with relevant experience in the field of specialization. Additionally, the support staff, which includes medical team, engineers, vehicle mechanics, operators, etc. having relevant qualifications viz. M.B.B.S./ B.E./ B. Tech., Diploma/ I.T.I. are also deputed for maintenance of life support systems and providing logistic support to research programs.
- (c) Currently, two permanent Indian research stations are functional in Antarctica. Maitri station, located at 70°45'52"S and 11°44'03"E in the central part of Schirmacher Oasis, in central Dronning Maudland Region of East Antarctica has been operational since 1988. It is an inland station about 100 km from the shore at an elevation of about 50 meters above sea level. Bharati station, operational since March 2012, is located at 69° 24.41' S and 76° 11.72' E in Larsemann Hills, Antarctica. It is about 35 m above sea level and just about 300 meters from the shoreline. Both stations facilitate year-round scientific research.
- (d) The major thrust area of the Indian Antarctic Programme are Climate Processes and Linkages to Change; Crustal Evolution; Environmental Processes and Conservation; Ecosystem of Terrestrial and Near shore; Observational Research and Polar Technology. The operational expenditure on Antarctic expedition is of the order of Rupees 90 to 110 crore annually depending on the projects and services.

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