

**GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
RAJYA SABHA  
UNSTARRED QUESTION No- 2274  
ANSWERED ON – 16/03/2021**

**INDIAN COLLABORATIVE RESEARCH IN ANTARCTICA**

**2274. DR. VINAY P. SAHASRABUDDHE**

**Will the Minister of EARTH SCIENCES be pleased to state:-**

- (a) whether India's research stations are involved in any collaborative research in Antarctica, if so, the details thereof;
- (b) if so, which are the major countries with whom such collaborative researches are being undertaken and the details thereof; and
- (c) if so, how many Indian scientists have participated in these major collaborative activities during the last three years and the details thereof?

**ANSWER  
MINISTER FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND  
MINISTRY OF EARTH SCIENCES  
(DR. HARSH VARDHAN)**

- (a) Yes, Sir. India collaborates with Norway and Japan in Antarctic Research.
- (b) A major Indo-Norwegian collaborative field campaign, near Indian Maitri station, was undertaken during 2016–2019 to understand the ice shelf dynamics, mass balance and reconstruct past changes in atmospheric and sea ice dynamics under the joint project “Mass balance, dynamics, and climate of the central Dronning Maud Land coast, East Antarctica (MADICE)”. Under this project, geophysical field measurements, ice core drilling, snow core drilling, ice-sheet modelling and satellite remote sensing-based studies were conducted to understand the future Antarctic contribution to the global sea-level rise.

An Indo-Japanese project “Schirmacher Oasis Nippon (Japan) India Coring (SONIC)” was initiated during 2019 to reconstruct the past-climate.

15 sediment cores, ranging from 1 m to 8 m, were retrieved from various lakes of Schirmacher Oasis by the team for analysis.

- (c) Five scientists from National Centre for Polar and Ocean Research (NCPOR), Goa have participated in the Indo-Norwegian project and two scientists from NCPOR and one scientist from the Manipal University are involved in the Indo-Japanese collaborative project.

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