

GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
**RAJYA SABHA**  
**UNSTARRED QUESTION No. 1296**  
ANSWERED ON 28/07/2022

**SAMUDRAYAAN MISSION**

1296. SHRI VENKATARAMANA RAO MOPIDEVI:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) the details of the Samudrayaan Mission aimed at sending men into the deep sea for deep ocean exploration and mining of rare minerals;
- (b) the intended benefits of the same;
- (c) the projected timeline for the same; and
- (d) the details of other such projects for the exploration of deep sea?

**ANSWER**

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

- (a) Samudrayaan Mission is aimed to develop a self propelled manned submersible to carry 3 human beings to a water depth of 6000 meters in the ocean with a suite of scientific sensors and tools for deep ocean exploration. It has an endurance of 12 hours of operational period and 96 hours in case of emergency.
- (b) The manned submersible will allow scientific personnel to observe and understand unexplored deep sea areas by direct interventions. Further, it will enhance the capability for deep sea manned vehicle development.
- (c) The projected timeline is five years for the period 2020-2021 to 2025-2026.
- (d) National Institute of Ocean Technology (NIOT), Chennai, an autonomous institute under MoES has developed 6000m depth rated Remotely Operated Vehicle (ROV) and various other underwater instruments such as Autonomous Coring System (ACS), Autonomous Underwater Vehicle (AUV) and Deep Sea Mining System (DSM) for the exploration of deep sea.

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