

**GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOK SABHA
UNSTARRED QUESTION No.1934
TO BE ANSWERED ON FRIDAY, NOVEMBER 29, 2019**

CLIFF EROSION IN VARKALA BEACH

1934. ADV. ADOOR PRAKASH:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether the Centrally funded study on cliff erosion in Varkala beach in Kerala has been completed;**
- (b) if so, the details thereof and the findings thereon; and**
- (c) if not, the present status thereof and the time by which the study is likely to be completed?**

ANSWER

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

- (a) No Sir. National Centre for Earth Sciences and Studies (NCESS), and National Centre for Coastal Research (NCCR) have initiated a comprehensive study on shoreline mapping, nearshore measurements and design of environmental protection measures to protect against erosion of Varkala Beach in Kerala.**
- (b) Does not arise.**
- (c) The bathymetry data pertaining to the coastal stretch provided by Kerala Govt. is used for setting up the Numerical Models. As part of hydrodynamic measurements, offshore wave data was collected through deployment of wave rider buoy. Shoreline survey and beach profile measurements were carried out along the 6 km coastal stretch adjoining the cliff. Automatic Weather Station was installed in March 2019 (at Varkala Cliff) and continuous data pertaining to coastal wind, atmospheric temperature, relative humidity and pressure is available since April 2019. Computation of changes in beach volume at selected locations for the period May-November have been completed. Numerical model studies were initiated in June, 2019. Models have been set up and preliminary simulations for calibration and testing of the models have been carried out for simulating the wave characteristics and coastal hydrodynamics. The time frame for completion of studies is one more year, which however depends upon the availability of fair weather season devoid of cyclones.**
