

**GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOK SABHA
UNSTARRED QUESTION NO. 250
TO BE ANSWERED ON WEDNESDAY, 27TH NOVEMBER, 2024**

**IMD'S OBSERVATION ON WEATHER FORECASTING FOR COASTAL AREAS
OF KERALA**

250. SHRI K C VENUGOPAL:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether the Government has assessed the impact of the IMD's recent closure of its observatory in Alappuzha on weather forecasting capabilities along Kerala's coastal areas;
- (b) whether there are plans to reopen the Alappuzha observatory at a new location in the vicinity, and if so, what steps are being taken to expedite this process;
- (c) whether the Government is considering the State's demand for additional weather monitoring stations, especially in sensitive districts like Idukki and Wayanad; and
- (d) the measures implemented/being implemented to address the reliability issues of the automatic weather stations and rain gauges in Kerala, that faced calibration and maintenance challenges?

ANSWER

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

- (a) Yes. This is only a temporary closure in response to the eviction notice issued to the India Meteorological Department (IMD) by the Maritime Board, Kerala State. Despite the closure, the Automatic Rain Gauge (ARG) installed in the same location continues to provide essential weather data, and this office is utilizing it for weather forecasting purposes, thereby not compromising the forecasting capabilities along Kerala's coastal areas.
- (b) Yes. Meteorological Center (MC)-Thiruvananthapuram has approached the Government of Kerala to provide a suitable site with a building within a 2-3 km radius of the old observatory so that the existing climatological data of the Alappuzha observatory remains relevant and applicable to the new location.
- (c) Currently there are no plans for establishing additional weather monitoring stations in the State of Kerala. However, the installation process of one X-Band Radar on the campus of Pazhassi College, Pulppally, Wayanad, is progressing as per the timeline. IMD has already established a sufficient number of Automatic Weather Stations/Automatic Rain Gauges/ and Agro-AWS (AWS/ARG/Agro-AWS) networks in the State of Kerala. Also, IMD has already established AWS and ARG networks in sensitive districts, Idukki and Wayanad, as given in Annexure-1.

(d) The AWS/ARG/Agro-AWS are under the annual maintenance contract (AMC) for maintenance and calibration. The following measures are implemented/being implemented to address the reliability issues of the automatic weather stations and rain gauges in Kerala:

- MC-Thiruvananthapuram is undertaking frequent field comparisons of meteorological parameters such as air temperature, relative humidity, atmospheric pressure, rainfall, wind speed, and wind direction measured at AWS and ARG stations with standard instruments.
- Development of a Quality Control (QC) system for Gross Error Check, Climatological Consistency Checks, Time Consistency Checks, Internal Consistency Checks, and Spatial Consistency Check is undertaken by IMD. The first version of the QC system has been implemented at the Central Data Receiving Server.
- Adequate spares of essential components of AWS and ARG systems are kept to undertake Preventive and Corrective maintenance of AWS and ARG stations.
- IMD is organizing routine training programs to enhance the competency of manpower involved in the maintenance of AWS and ARG stations.

Annexure-1

| AWS/ARG/AGRO-AWS NETWORK | | | | |
|---------------------------------|------------------|------------|------------|-----------------|
| S. No. | STATE/ UT | AWS | ARG | AGRO-AWS |
| 1 | KERALA | 109 | 30 | 3 |

| S. No. | State | District | AWS/ARG Station | Lat | Lon |
|---------------|--------------|-----------------|------------------------|------------|------------|
| 1 | KERALA | IDUKKI | ANAYIRANKAL DAM | 10.0104 | 77.2087 |
| 2 | KERALA | IDUKKI | AYYAPPANKOVIL | 9.7100 | 77.0100 |
| 3 | KERALA | IDUKKI | CHERUTHONI | 9.8650 | 76.9983 |
| 4 | KERALA | IDUKKI | KOVILKADAVU | 10.2597 | 77.1688 |
| 5 | KERALA | IDUKKI | KUNDALA DAM | 10.1461 | 77.2019 |
| 6 | KERALA | IDUKKI | MEENCUT | 10.0410 | 77.0460 |
| 7 | KERALA | IDUKKI | MUNNAR | 10.0833 | 77.0567 |
| 8 | KERALA | IDUKKI | PAMPADUMPARA | 9.7986 | 77.1614 |
| 9 | KERALA | IDUKKI | PEERMADE | 9.5730 | 76.9910 |
| 10 | KERALA | IDUKKI | SENGULAM DAM | 10.0124 | 77.0318 |
| 11 | KERALA | IDUKKI | UDUMBANNOOR | 9.8667 | 76.8586 |
| 12 | KERALA | IDUKKI | UPPER PERINJAMKUTTY | 9.6000 | 77.0100 |
| 13 | KERALA | IDUKKI | VATTAVADA | 10.1777 | 77.2538 |
| 14 | KERALA | IDUKKI | VELLATHOOVAL | 9.9800 | 77.0100 |
| 15 | KERALA | IDUKKI | THODUPUZHA | 9.9100 | 76.6000 |
| 16 | KERALA | WAYANAD | AMBALAVAYAL_AFMU | 11.6173 | 76.2141 |
| 17 | KERALA | WAYANAD | KABANIGIRI | 11.8544 | 76.1781 |
| 18 | KERALA | WAYANAD | KALPETA | 11.6264 | 76.0886 |
| 19 | KERALA | WAYANAD | KARAPUZHA | 11.6180 | 76.1670 |
| 20 | KERALA | WAYANAD | KUPPADI | 11.6786 | 76.2269 |
| 21 | KERALA | WAYANAD | PADAMALA | 11.8111 | 76.0758 |
| 22 | KERALA | WAYANAD | PADINJARATHARA_DAM | 11.6560 | 75.9460 |
| 23 | KERALA | WAYANAD | MANANTHAVADY | 11.7900 | 76.0000 |
| 24 | KERALA | WAYANAD | MEENANGADI | 11.6600 | 76.1600 |
| 25 | KERALA | WAYANAD | POOKOT | 11.5300 | 76.0200 |
