

GOVERNMENT OF INDIA

MINISTRY OF JAL SHAKTI

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

LOK SABHA

STARRED QUESTION NO. *68

ANSWERED ON 07.12.2023

FLOODS IN SIKKIM

*68 SHRI PRADYUT BORDOLOI

Will the Minister of JAL SHAKTI be pleased to state:

- (a) whether South Lhonak Lake has an operational early warning system, especially considering its longstanding recognition of being at risk and if so, the details thereof;
- (b) whether the preparedness and early measures in place were implemented during Sikkim glacial lake outburst floods and if so, the details thereof;
- (c) the details of the human casualties from the Sikkim floods and relief measures undertaken to support the affected families including the assistance/ funds given to the State; and
- (d) the details of the assessment made and monitoring mechanisms activated by the Central Water Commission in monthly monitoring of critical areas in North East such as South Lhonak Lake?

ANSWER

THE MINISTER OF JAL SHAKTI

(SHRI GAJENDRA SINGH SHEKHAWAT)

(a) to (d) : A statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) OF STARRED QUESTION NO. *68 TO BE ANSWERED ON 07.12.2023 IN LOK SABHA REGARDING “FLOODS IN SIKKIM”

(a) A water level sensor to monitor the changes in the water level of the lake was installed at the South Lhonak lake in the year 2016. The water level sensor was developed by C-DAC under Ministry of Electronics & Information Technology as a pilot project. However, due to inclement weather conditions prevailing at those high altitudes the system was damaged and collapsed after 6 months of installation. At present, there is no operational early warning system installed at South Lhonak Lake.

Recently, National Disaster Management Authority has taken up the pilot project for development and installation of Early Warning System for two Glacial lakes namely, South Lhonak Lake & Shako Cho Lake in Sikkim with technical support of Swiss Development Corporation and logistics support from Government of Sikkim.

(b) As informed by the Sikkim Urja Limited (owner of Teesta-III dam, which was washed out during the flash flood of 3rd October 2023), emergency response system was activated by the project authorities and the warning to the downstream population was issued by way of sirens. Chungthang town was informed about the possibility of flash flood. About 250 people from the project colonies at dam site were evacuated and shifted to higher level. Downstream projects were also informed over telephone. National Disaster Response Force (NDRF) deployed 06 teams in Sikkim and 05 teams in West Bengal to tackle the floods in the affected areas. NDRF teams remained deployed there w.e.f. 04.10.2023 to 01.11.2023.

(c) As informed by the State Government, 46 human casualties including 15 army personnel have been reported during the flash flood in the Teesta River basin in Sikkim. Relief materials were distributed by the concerned agencies to the affected population as per the norms.

(d) 477 Glacial Lakes/Water Bodies (GL/WBs) having size above 50 Hectare (Ha) were monitored on monthly basis from 2011-2021 jointly by National Remote Sensing Centre (NRSC) and Central Water Commission (CWC) using remote sensing data. From 2022 onwards, 902 GL/WBs are being monitored using remote sensing data. These consists of 544 Glacial Lakes above 10 Ha and 358 Water Bodies above 50 Ha. The monitoring is carried out in respect of changes in their water spread during monsoon season from June to October, every year.

Out of 544 Glacial Lakes, 100 Glacial Lakes are in India. Out of that, 41 are in Sikkim including South Lhonak Lake and 10 are in Arunachal Pradesh.

Water Spread area of South Lhonak Lake varied from 100 Ha to 160 Ha during monthly monitoring period i.e. June - October during 2011-2023. Maximum area was 169 Ha & 171 Ha in Sept 2022 & Sept 2023 respectively.

Monthly monitoring reports are shared through email with all the concerned stakeholders. The reports are also published on the CWC website.
