

**GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
UNSTARRED QUESTION NO.211
ANSWERED ON 02.02.2023**

NATIONAL THERMAL POWER CORPORATION

**211. SHRI ANTO ANTONY:
ADV. ADOOR PRAKASH:
PROF. SOUGATA RAY:**

**Will the Minister of POWER
be pleased to state:**

- (a) the details of the ongoing power projects in the Himalayan Region of the country;**
- (b) whether any probe has been conducted/proposed to be conducted about the impact of the tunnel projects of National Thermal Power Corporation (NTPC) with regard to the sinking of Joshimath and if so, the details along with the findings thereof;**
- (c) whether the Government has noticed/ascertained that the construction of hydel power plant/projects by NTPC has led to the sinking of land at Joshimath in Uttarakhand and nearby areas and if so, the details thereof;**
- (d) whether the Government had conducted any environmental impact assessment/study before setting up of the said plant and if so, the details thereof;**
- (e) whether there is any proposal to stop the ongoing construction of such hydel power projects and if so, the details thereof;**
- (f) whether NTPC has given any compensation to the villagers on any occasion earlier due to such natural calamities/other reasons; and**
- (g) if so, the details thereof and the reasons therefor?**

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) : At present, there are 30 nos. of large Hydro Electric Projects (HEPs) (above 25 MW Installed Capacity) with aggregate Installed Capacity of 11137.50 MW which are being developed in the Himalayan belt across different States in the country. Out of these projects, 23 Nos. of Hydro Electric projects totalling to 10381.5 MW, are under active construction and 7 nos. of HEPs totalling to 756 MW, are held up. Besides, there are 87 nos. HEPs with an aggregate Installed Capacity of 22982 MW in Himalayan belt across different States in the country which are operational.

(b) &(c) : The land subsidence in Joshimath is a very old issue. It was observed way back in 1976. This was noted by Government of Uttar Pradesh and they constituted a Committee, headed by Shri M.C. Mishra, Commissioner, Garhwal to examine reasons for the instability of the land in Joshimath. The observations of M.C. Mishra Committee are as under:

- Joshimath is not situated on in situ rocks. It situates on weathered, landslide mass of big un- settled boulders in the loose matrix of fine micaceous sandy and clayey material. The rocks are crystalline consisting of schistose gneissic and quartzitic.**
- Joshimath lies on an ancient landslide. This landslide zone extends upto big nala near Parsari in the east, in the west upto north-west ridge and nala near Gaukh, in north upto river-bed where some in-situ out crops are noted on the Southern bank, while Northern bank consists of solid in-situ bed rock (Hathi Parbat) and in the South upto and beyond Auli which may extend upto the high mountain ridge forming the water shed.**

- **Probable cause of subsidence/ cracks can be hill wash, natural angle of repose, cultivation area because of seepage and soil erosion.**

The construction for Tapovan Vishnugad Hydro Power Project was started in the year 2006. The area of subsidence in Joshimath is 15 km upstream from the project components. The tunnel is at a horizontal distance of around 1.1 km away from the outer boundary of Joshimath town and vertically around 1.1 km below the ground level. There are no signs of sinking around the tunnel alignment at the over ground surface.

The State Authorities constituted a multi-institutional committee in July 2022, after the reports of land subsidence in Joshimath town. Experts from the Wadia Institute of Himalayan Geology (WIHG), CSIR-CBRI, IIT Roorkee, Geological Survey of India (GSI) and the Uttarakhand State Disaster Management Authority (USDMA) were part of the team that carried out the geological and geotechnical investigation in the area of Joshimath town of Chamoli District to identify the causes of the ongoing subsidence and suggest remedial measures. The report of the committee has no mention of NTPC Tapovan Vishnugad Hydro Power Project causing land subsidence in Joshimath.

(d) : Tapovan Vishnugad Hydro Power Project was started in 2006 after detailed examination for Environmental Impact, Geological Studies, Hydrological Studies & Seismic Studies by Geological Survey of India (GSI), Central Water Commission (CWC) & National Council of Seismic Design Parameters (NCSDP). Techno Economic Clearance was given by Central Electricity Authority (CEA). Actual construction of the project started only after obtaining Environment Clearance (EC) from Ministry of Environment, Forest & Climate Change (MoEF&CC).

(e) : After the reports of land subsidence in Joshimath Town, the ADM, Chamoli has issued an order on 05.01.2023, to stop all the construction activities at NTPC Tapovan Project, till further orders. Accordingly, all the construction activities at NTPC Tapovan Project have been stopped w.e.f. 05.01.2023.

(f) & (g) : NTPC has not given any compensation to the villagers earlier due to any natural calamities or any other reasons.
