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WORLD'S LARGEST SOLAR TELESCOPE PLAN CLEARS GREEN HURDLES

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India's much-awaited largest solar telescope, proposed at Merak village on shore of Pangong Lake in Jammu & Kashmir's Ladakh region, has cleared the green hurdle with the Union Environment Ministry's National Board of Wildlife (NBWL) giving its nod to the project.

The indigenous National Large Solar Telescope (NLST) is considered as one of world's most powerful solar telescopes facilities with a capability to do both day and night astronomy. It would also fill the longitude gap between Japan and Europe.

Citing its scientific utility, the Board recently approved diversion of 7.60 hectares of forestland from Changthang Cold Desert Wildlife Sanctuary in the Ladakh region for setting up the telescope. In May last year, the Jammu & Kashmir Government gave a green signal to the project.

The telescope is expected to be of great help in understanding the process of creation and decay of sunspots, apart from furthering cutting edge research on other fundamental processes taking place on Sun.

During the NBWL meeting, the IGF (WL) briefed the panel on the proposal and cited the claim by the user agency (Indian Institute of Astrophysics, Bangalore) which said that the location was suitable for establishment of the telescope for day time observations.

After discussions, considering the scientific utility of the telescope, the Standing Committee decided to recommend the proposal along with the conditions prescribed by State Chief Wildlife Warden, said sources in the Ministry.

The innovative design and backend instruments would further enable observations with an unprecedented high spatial resolution that would provide crucial information on the nature of magnetic fields in the solar atmosphere, according to S Siraj Hasan, former Director of the Bangalore-based institute.

Prof Dipankar Banerjee of the IIA, who works on the project, said that site evaluation for the telescope has been scientifically carried out.

According to him, site evaluation showed 50 percent of the clear time the perceptible water vapour content with 5mm over several hours during periods with good seeing condition. He also informed that evaluation of aerosol concentration and size distribution and its seasonal variation to look for low levels of dust and high sky transparency.

"The location will also help in monitoring of meteorological parameters, especially the lower wind speed and presence of mild gusts and direction also the laminar winds blowing in favourable condition," Banerjee said.