

UPSC Civil Services Examination

Geography Notes for IAS

Topic: Cloud Observatory in India

The following are the cloud observatories in India:

Cloud Observatory in India	
S.No	Location of Cloud Observatory
1.	Himalayan Cloud Observatory - Tehri (Uttarakhand)
2.	Munnar Observatory - Kerala
3.	Breamore Observatory - Kerala
4.	NCESS Campus Observatory - Kerala

Key Facts about Cloud Observatories in India

Cloud Observatory in India	
Name of Cloud Observatory	Features
Tehri Cloud Observatory	<ul style="list-style-type: none"> To receive forecast and monitor cloud burst incidents in the Himalayan region and help minimise the damage In the SRT campus, Badshahithaul and is currently in the testing period Second observatory in the country to monitor cloud activities by the Indian Science and Technology Department and Indian Institute of Technology (IIT) Kanpur that can function in high-altitudes
Munnar Cloud Observatory	<ul style="list-style-type: none"> High altitude cloud physics observatory At an altitude of 1820 m above MSL, 5 km away from Anamudi Highest elevated observatory in the tropical region in South Asia
Breamore Cloud Observatory	<ul style="list-style-type: none"> Mid-altitude observatory Braemore is situated on the western slope of the Western Ghats
NCESS Campus Observatory	<ul style="list-style-type: none"> Near to the Akkulam backwater system 3 Km away from the coast of Arabian Sea

Application of Cloud Observatory - Munnar

- High altitude cloud physics observatory at Munnar is used to observe cloud and rain processes over that region with state of the art observations. Such a facility will enable understanding of rainfall

distribution and will allow better characterization of rainfall processes in the numerical models used for prediction of monsoon rainfall.

Uses of Cloud Observatory - Munnar

- It is normal that long haul observing of cloud and precipitation procedures will empower precise portrayal of cloud microphysical process in estimate models to enhance the overall ability of precipitation expectation for serious climate marvels viz, overwhelming precipitation, thunderstorm and so forth., complete Kerala as well as for the entire nation.

Functional Cloud Physics Laboratories

- High altitude cloud physics laboratories are functional at Mahabaleshwar (Konkan) and Munnar (Kerala) to study the monsoon cloud microphysics process modulated by the Western Ghats only and hence no such additional facility is contemplated.
- Studies were undertaken in four climate-sensitive regions of the country, viz. Himalayan Region, Western Ghats, North Eastern Region and Coastal Areas to assess the possible impacts on the four sectors viz. agriculture, water, forests and health and associated ecosystem.

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