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CLASS – 7

SOCIAL SCIENCE

Exploring Society : India and Beyond

CH –2
Understanding the Weather

Part – 5

Weather Station

Sukhdeep Kaur

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OVERVIEW

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1. Weather and its element
2. Observing Nature's clues
3. Weather Instrument : Temperature, Precipitation
4. Weather Instrument : Atmospheric Pressure, Wind
5. Weather Instrument : Humidity
6. Weather Station

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WEATHER STATION

- **Purpose :** Combine all weather instruments in one place.
- **Function :** Measure and track weather conditions at a location.

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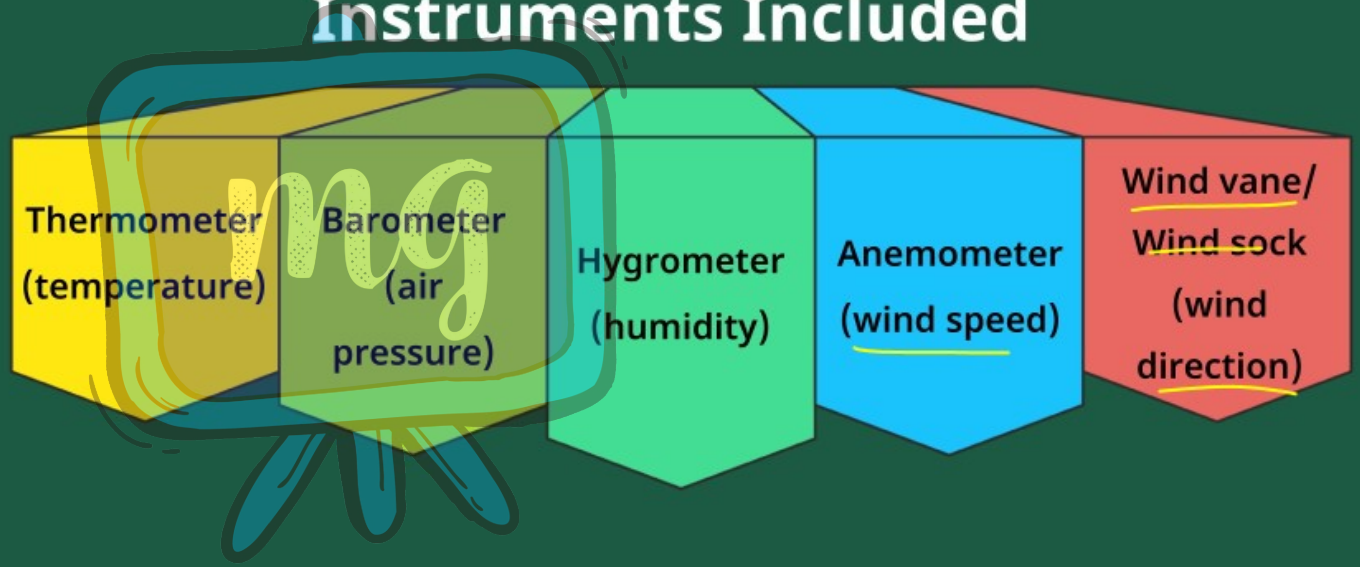
Instruments Included



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- **Readings Taken :** At regular intervals.
- **Use :** Helps in weather mapping and forecasting.



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AUTOMATED WEATHER STATION (AWS)

☛ A self-operating system that records weather data using sensors.



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☛ Advantages

- ✧ No human intervention need.
- ✧ Provides accurate and timely data.

☛ Used in –

- Agriculture
- Aviation
- Navigation
- Environmental monitoring

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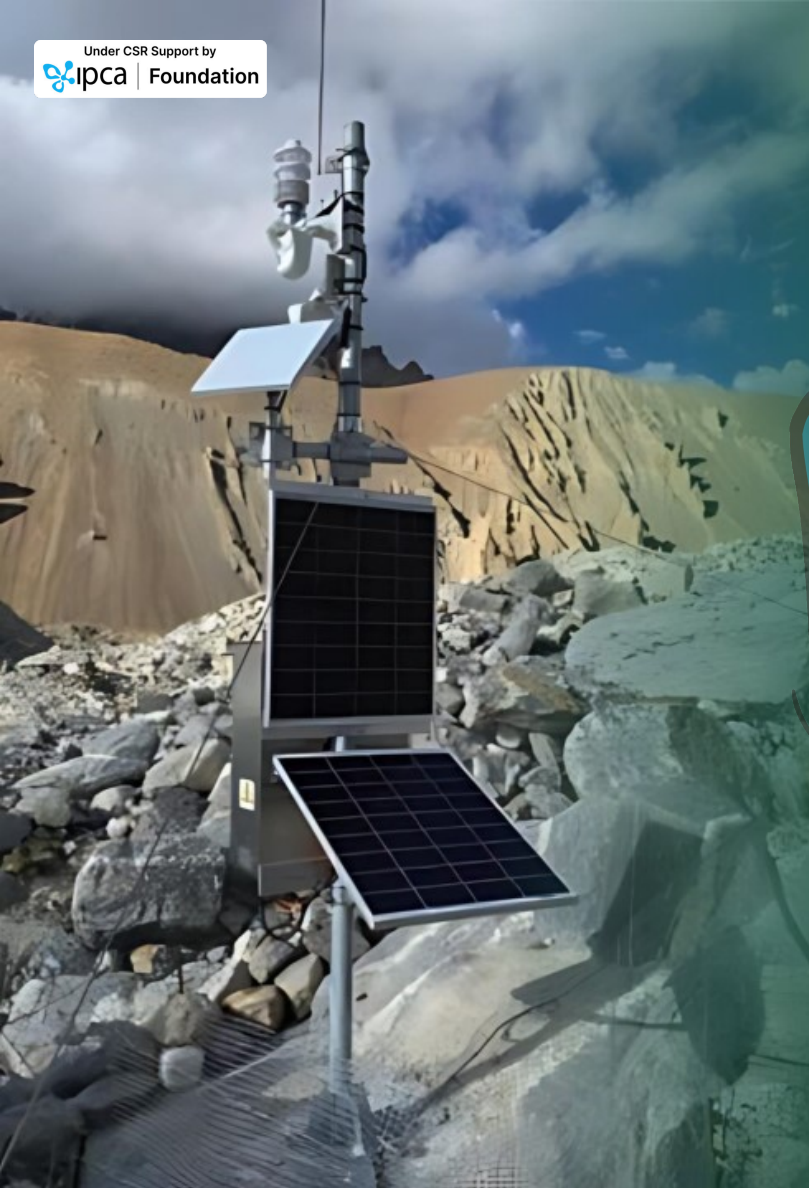

AWS at Glacial Lake, Sikkim

- Year : 2023
- Set Up By : National Disaster Management Authority (NDMA)
- Location : Glacial lake in Sikkim
- Altitude : Over 4800 metres above sea level
- Purpose : Provides early weather warnings and updates on upcoming weather conditions

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PREDICTING THE WEATHER

- Meteorologists : Scientists who study weather data.
- **How They Work –**
  - Collect data from weather instruments over time.
  - Use scientific methods to forecast weather.

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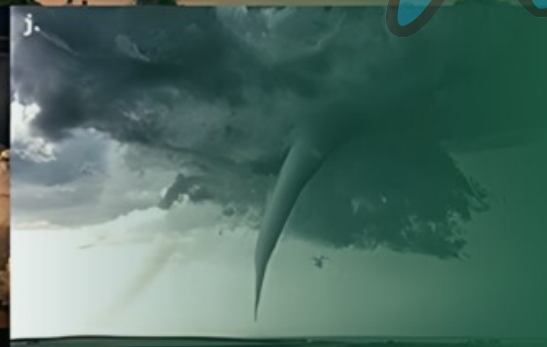

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☛ Importance of Prediction

- ✧ Helps prepare for extreme weather events.
- ✧ Increasingly crucial due to climate change.
- ✧ Warns about droughts, floods, cyclones, etc.

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ACCURATE WEATHER PREDICTIONS

- Preparedness: Helps people get ready for extreme weather.
- **Government Role –**
  - Enables local authorities to mobilize resources.
  - Plan for disaster management.

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☛ Examples

- ✧ Fishermen warned before stormy seas.
- ✧ Evacuation of coastal areas if a cyclone is predicted.

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LEARNING OUTCOMES

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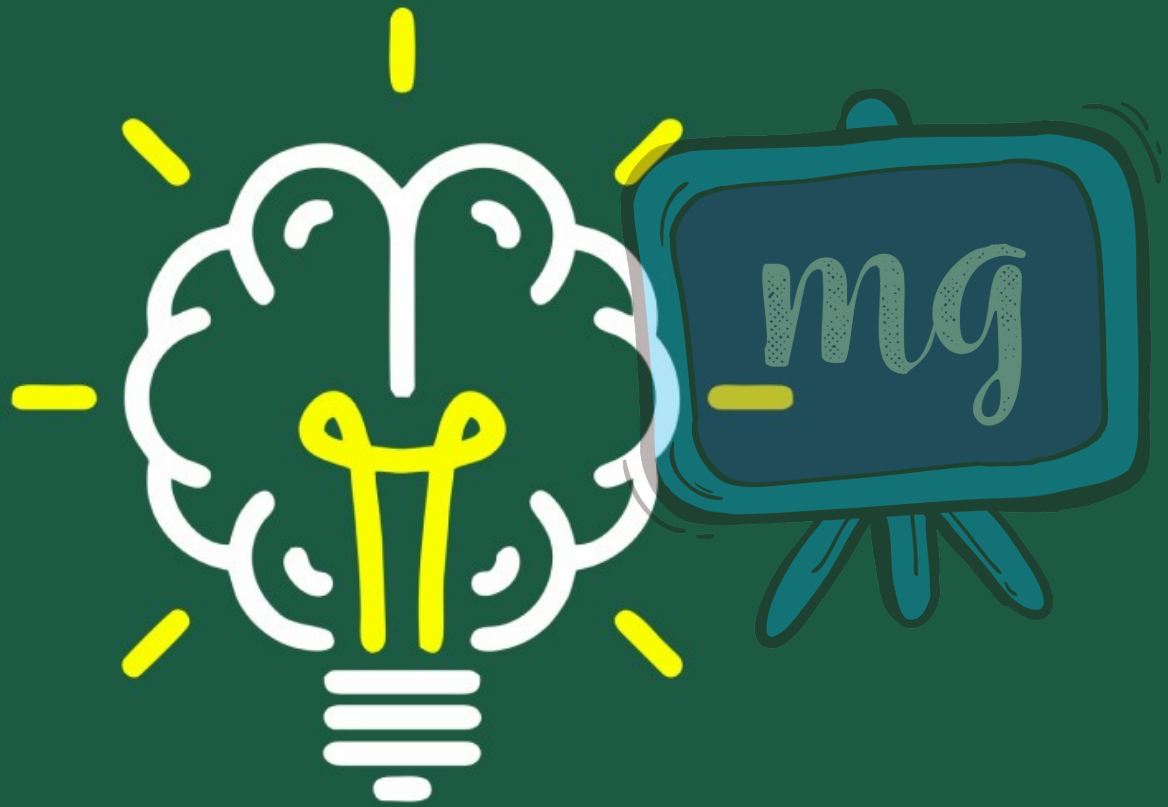

Weather Station



1 Which instrument is used to measure atmospheric pressure?

A Thermometer

B Anemometer

C Barometer

D Hygrometer



2 Who set up the AWS at the glacial lake in Sikkim?

A ISRO

B NDMA

C IMD

D NASA



3 Why are weather predictions more important now than before?

A Fewer scientists are available

B Due to climate change and extreme weather events

C Weather is always pleasant

D Predictions are just for fun