A New Way of Predicting Monsoon

- A researcher at a science and technology conference organised in Vienna by the Comprehensive Nuclear-Test-Ban Treaty Organisation has come up with a new way of predicting the monsoon,
- The method measures how much Beryllium-7, an isotope of the element Beryllium, is present in the air.
- Be-7 is chosen because it is created only in the stratosphere when cosmic rays hit and break the nuclei of nitrogen and oxygen.
- During monsoons the air flows down from the stratosphere (upwards of 33,000 feet from the earth's surface), bringing some Be-7. Thereby making the prediction of monsoon more reliable.
- Research proposes that there is a strong connection between the amount of Be-7 and the timing of monsoons, which is yet to be proven.

Comprehensive Nuclear-Test-Ban Treaty Organization

- The Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) is an international organization, established upon the entry into force of the Comprehensive Nuclear-Test-Ban Treaty in 1996.
- Its headquarter is in Vienna, Austria.
- The organization is tasked with verifying the ban on nuclear tests and therefore operates a worldwide monitoring system and may conduct on-site inspections.
- The CTBTO runs the International Monitoring System (IMS) of 300-odd stations, which can sense vibrations, hear sounds or smell noble gases (such as Xenon, Krypton) 'radionuclides' (such as Beryllium-7).
- IMS can detect any nuclear explosion globally.