
3. Tropospheric Emissions Monitoring of Pollution (TEMPO) Instrument

Why in the News?

- A SpaceX Falcon 9 rocket has recently launched the Tropospheric Emissions Monitoring of Pollution (TEMPO) instrument from Florida.

Highlights

- TEMPO is a NASA device that can track air pollution over North America from space. It will allow scientists to monitor air pollutants and their emission sources down to the neighbourhood level.
- The TEMPO Instrument is a grating spectrometer, sensitive to visible and ultraviolet wavelengths of light.
- TEMPO is hosted on an Intelsat communications satellite in geostationary orbit.
- It will be able to measure atmospheric pollution down to a spatial resolution of 4 square miles or neighbourhood level.
- TEMPO will have multiple applications from measuring levels of various pollutants to providing air quality forecasts and helping the development of emission-control strategies
- More than 40% of the US population live in places with unhealthy levels of particle pollution or ozone, and air pollution is blamed for some 60,000 premature deaths a year.

