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News: Square Kilometre Array Observatory (SKAO)

- India will also be part of the world's largest radio telescope project called the Square Kilometre Array Observatory (SKAO).
- Countries have to sign, and ratify, the SKAO convention to formally become members. The Government of India's approval for joining the project, with a financial sanction of Rs 1,250 crore, is the first step towards the ratification.

Square Kilometre Array Telescope

- The Square Kilometre Array (SKA) is an **intergovernmental radio telescope** project being planned to be built in **Australia and South Africa**.
- Conceived in the 1990s, and further developed and designed by the late-2010s, when completed it will have a total collecting area of approximately one square kilometre sometime in the 2020s.
- It is proposed to **be built in two phases**, with an estimated 1.8 billion euros required for phase I, over the next 10 years.
- Among its goals are **studying the universe and its evolution, origin and evolution of cosmic magnetism, dark energy and evolution of galaxies**.

- The telescope in South Africa will have 197 dishes, each 15 metres in diameter and will be located in Karoo region. The telescope in Australia will have 1, 31,072 antennas, each measuring 2m high.
- More than 1000 scientists and 500 engineers representing 20+ countries including India have contributed towards the design of this giant.
- Square Kilometre Array Observatory (SKAO) members are Canada, China, France, Germany, India, Japan, Italy, Netherlands, Portugal, South Korea, Spain, Sweden and Switzerland.
- Headquarters of SKAO will be situated in UK.