

China's Artificial Moon

Why in news?

China is planning to launch first man-made moon from Xichang Satellite Launch Center in Sichuan, with three more to follow in 2022.

What is the China's plan?

- The artificial moon would be a mirror orbiting Chengdu at a height of 500 km.
- It would reflect the sun's light at night.
- The artificial moon's brightness will be around eight times that of the moon.
- The project was announced at an innovation and entrepreneurship conference in Chengdu, China.
- Tian Fu New Area Science Society, Harbin Institute of Technology and China Aerospace Science and Industry Corp are involved in developing the man-made moons.



- Though the first launch will be experimental, the 2022 satellites will be real test with great civic and commercial potential.
- China is not the first country which is trying to make artificial lights with the help of Sunlight.
- In the 1990s, Russian scientists reportedly used giant mirrors to reflect light from space in an experimental project called Znamya or Banner.
- It managed to reflect only a narrow beam of light and was seen as pulses from a star-like object by the people in the ground.

What will be the advantages?

- Can potentially replace streetlamps in urban areas.
- Would save an estimated 1.2 billion yuan (\$170 million)/ year in electricity costs for Chengdu.
- Can also be helpful in disaster zones during blackouts.

What will be the concerns?

- **Accuracy** - At an altitude as low as 500 km missing the angle of reflection by even a few degrees would miss Chengdu by miles.

- **Change in Natural cycle** - As it lights up during night time it could potentially affect the daily cycle of animals and plants.
- It might even affect the **human circadian system** - the biological clock.

Source: The Indian Express

