

## **Circularity in Solar Sector**

## Why in News?

Recently, G20 Indian Sherpa India's Amitabh Kant said that circular economy could generate a market value of over \$2 trillion and create 10 million jobs by 2050.

- **Circular economy** It refers to an economic system designed to eliminate waste, maximise resource efficiency, and maintain products and materials at their highest quality for as long as possible
- 3 principles of circular economy
  - $\circ\,$  Eliminate waste and pollution
  - $\circ\,$  Circulate products and materials (at their highest value)
  - Regenerate nature
- Need India's installed solar capacity is 66.7 GW as of FY23, has generated about <u>100</u> <u>kilotonnes (kt) of waste</u>, which will <u>increase to 340 kt by 2030</u>.
- Around 67% of this waste is expected to be generated in 5 states- Rajasthan, Gujarat, Karnataka, Andhra Pradesh, and Tamil Nadu.
- The addition of new solar capacities by 2030 to meet India's nationally determined contribution targets under Paris Agreement could create cumulative solar waste of <u>19</u> <u>million tonnes by 2050</u>.
- **Circularity in solar sector** It can be done through smarter product design, longer use, recycling and more, as well as regenerate nature.
  - Use recycled aluminium in frames
  - $\circ\,$  Use solar glass in new modules
  - $\circ\,$  Reduce use of critical minerals such as copper and silver
  - $\circ\,$  Eliminate use of toxic metals
  - $\circ\,$  Reuse components in new modules
  - $\circ\,$  Recycling of solar waste



## Reference

Hindustan Times | Circularity in Solar Sectors

