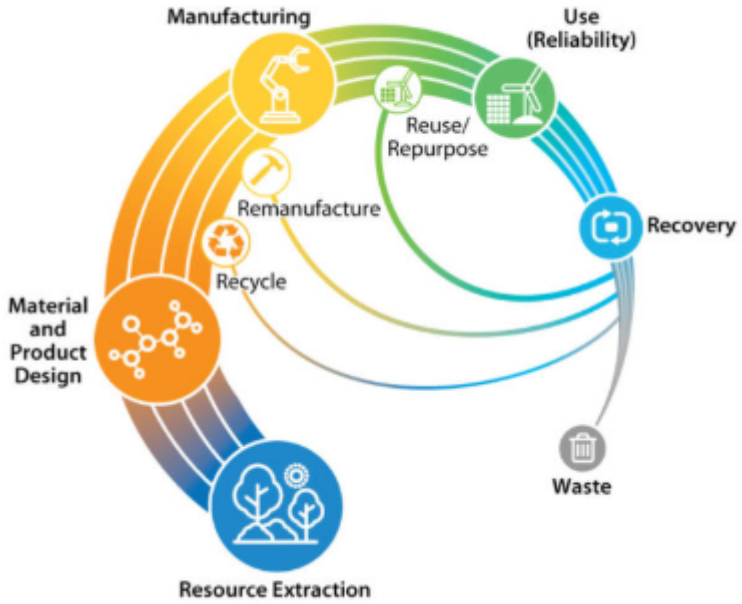
Circularity in Solar Sector

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**
  - Eliminate waste and pollution
  - 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 ***100 kilotonnes (kt) of waste,*** which will *increase to 340 kt by 2030.*
- 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 *19 million tonnes by 2050*.
- **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
  - Use solar glass in new modules
  - Reduce use of critical minerals such as copper and silver
  - Eliminate use of toxic metals
  - Reuse components in new modules
  - Recycling of solar waste



Reference

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