

### **3. Waste Management on Siachen Glacier**

**Prelims: Environment- Pollution & Waste Management**

**Mains: GS-III- Conservation, environmental pollution and degradation, environmental impact assessment.**

#### **Why in News?**

- ▶▶ The Indian Army has removed 130 tonnes of garbage from the Siachen Glacier and is cutting potential trash in rations.

#### **Challenges:**

- ▶▶ On average, 236 tonnes of waste is generated every year on Siachen glacier.
- ▶▶ The biggest challenge is the high altitude as most posts are located between 18,000 and 21,000 feet. Bana post is the highest on the glacier close to 22,000 feet. At 18,000-19,000 feet, Indian and Pakistani posts face each other. Beyond 20,000 feet, it is only India.
- ▶▶ Nothing degrades at sub-zero temperatures, so everything had to be brought down.

#### **Waste Management on Siachen:**

- ▶▶ The army is looking to cut waste in the rations and utilities delivered on the glacier and make Siachen garbage-free in 12-15 years.
- ▶▶ Earlier, waste disposal work was fragmented and intermittent.
- ▶▶ Based on a 2018 concept note on waste management on the glacier, the Army has made bringing down waste a part of the Standard Operating Procedure (SOP) for troops.
- ▶▶ The capacity of each person to carry is 10-15 kg due to the extreme weather.
- ▶▶ Since then, nearly 130 tonnes of waste has been brought down from the Siachen Glacier and disposed of.
- ▶▶ The three types of wastes are disposed of differently:
  - ❖ Biodegradable waste is rolled using baling machines.
  - ❖ Non-biodegradable, non-metallic waste: three incinerators have been set up. The waste is burnt in the incinerators but they do not produce Carbon Monoxide. The ash is used as manure.
  - ❖ Metallic waste: there are three extrication centres. Industrial crushers will be procured to crush it and send it down.
- ▶▶ The Army has collaborated with the civil administration there and barrels have been painted and set up in villages around to segregate waste.

### **Siachen Glacier:**

- ▶▶ Siachen is a 76.4 kilometre-long glacier in the Karakoram range.
- ▶▶ It covers around 10,000 square kilometres of uninhabited terrain.
- ▶▶ It sits extending across two disputed boundaries – with Pakistan and China.
- ▶▶ For the last 33 years, Indian troops have been deployed on the world's highest and coldest battlefield. They safeguard the nation's frontiers in temperatures of -40 to -50 degrees Celsius.
- ▶▶ The Siachen Glacier presents a unique set of environmental challenges for the human body, which has to make great adjustments to function at such extreme altitudes.
- ▶▶ Low oxygen levels, an increase in blood pressure due to reduced barometric pressure at high altitude, extreme cold, high levels of ultraviolet radiation and low humidity are just some of the adversities that Indian Army endures.

