

What is the Sonali bag?

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In news

Plastic-like Jute material developed in Bangladesh

About the Sonali bag

- The Sonali Bag or Golden Bag is a cellulose-based biodegradable bioplastic alternative to plastic bags, particularly polythene bags, developed in Bangladesh by Mubarak Ahmad Khan
- Mubarak Ahmad Khan invented the bag from jute in 2017
- The cellulose used in Sonali Bags is extracted from jute, a major fiber crop grown across the globe.
- Scientists in Bangladesh have developed a method to convert Jute fibre into low cost bio-degradable cellulose sheets named Sonali which can be used as wrapping material and carrying bags.
- Mubarak Ahmad Khan, scientific adviser to the state-run Bangladesh Jute Mills Corporation (BJMC) and leader of the team that developed the new 'sonali' says that the **physical qualities of the invented jute fibre and plastic are quite similar.**
- The bag not only looks and feels like plastic but is also compostable and completely biodegradable.
- The Eco-friendly jute poly bags made up of Sonali **can be used in garments and food packaging work and they are not harmful to human health.**
- **Polythene bags were banned in Bangladesh in 2002 because of environmental concerns.**

Challenge

- The main challenge in the large scale adoption of Soanli sheet is the relatively high cost of production which is almost double that of polythene.

- However, production on large scale is expected to bring down the cost.

What are biodegradable plastics?

Biodegradable plastics are plastics that can be decomposed by the action of living organisms, usually microbes, into water, carbon dioxide, and biomass. Biodegradable plastics are commonly produced with renewable raw materials, microorganisms, petrochemicals, or combinations of all three

Single-use plastic ban in India

As part of the year-long celebrations to mark the 150th birth anniversary of Mahatma Gandhi, the government had launched massive campaigns against single-use plastic.

What is single-use plastic?

- Single-use plastics are disposable plastics meant for use-and-throw.
- These comprise polythene bags, plastic drinking bottles, plastic bottle caps, food wrappers, plastic sachets, plastic wrappers, straws, stirrers and Styrofoam cups or plates.
- It is harmful to the environment as it is non-biodegradable.
- Single-use plastics slowly and gradually break down into smaller pieces of plastic known as micro plastics.

Conventions related to plastic waste

- **Basel convention:** Controlling transboundary movements of hazardous wastes and their disposal
- **The International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL):** MARPOL specifically prohibits the discharge of plastics from ships.
- **The Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 (London**

Convention) and its 1996 Protocol (the London Protocol):
With the aim of preventing marine pollution from the dumping of wastes and other matter, the London Protocol further prohibits the dumping and incineration at sea of wastes, including plastics

- **Stockholm Convention on Persistent Organic Pollutants:**
With the potential to regulate the production, use, and disposal of additives used in the manufacture of plastics, to the extent they are persistent organic pollutants (POPs)