



Reforms in the Jute Industry

For Prelims: [Natural Fibre](#), [Alluvial Soil](#), [Water Hyacinth](#), [Marginal and Small Farmers](#), [Carbon Sequestration](#), [Geotextiles](#), [Jute Packaging Materials \(Compulsory Use in Packing Commodities\) Act, 1987](#), [Technical Textiles Mission](#), [Irrigation](#).

For Mains: Possibilities and challenges in India's jute industry.

[Source: TH](#)

Why in News?

Recently, **jute cultivation** and the challenges faced by the sector was highlighted by the **Indian Jute Mills Association**.

What are the Key Facts About Jute?

- **About Jute:** Jute is a [natural fibre](#) under the category of bast fibres like **flax, hemp, kenaf and ramie**.
 - It has been traditionally grown in the **eastern part** of the Indian subcontinent, which make up the present day **West Bengal** of India and plains of **Bangladesh**.
 - The first jute mill in India was set up in the year **1855 at Rishra, near Kolkata**.
- **Ideal Condition:** Jute can grow in a wide range of soil but **fertile loamy alluvial soil** is better suitable.
 - Relative humidity between **40-90%** and temperature between **17°C and 41°C**, along with well-distributed rainfall **over 120 cm** is ideal for **cultivation** and **growth** of jute.
- **Species:** Normally, two species namely **Tossa and White jute** respectively are produced on a **commercial scale**.
 - Another bast fibre crop commonly known as **Mesta** has two cultivated species – ***Hibiscus cannabinus* and *Hibiscus Sabdariffa***.
- **Harvesting Techniques:** The bast fibre crop can be harvested at **any stage** after a certain period of vegetative growth, usually **between 100 and 150 days**.
 - Harvesting of jute crop at the **pre-bud or bud stage** gives the **best quality fibre**, however, the **yields are low**.
 - **Older crops** yield **more quantity** but the fibre becomes **coarse** and the stem **does not ret properly**.
 - The retting process is a method that uses **moisture and microorganisms** to separate plant **fibres from the stem**.
 - Hence, as a **compromise** between **quality and quantity**, the early **pod formation stage** has been found best for harvesting.
- **Retting Process:** The bundles of jute stems are kept in water and later placed side by side, usually in layers and tied together.
 - They are covered with [water hyacinth](#) or any other weed that does not release **tannin and iron**.
 - Retting is best done in **slow-moving clean water**. The optimum temperature is

around **34 degrees Celsius**.

◦ Once the fibre comes out easily from the wood, retting is considered complete.

▪ **Versatility: The tall, hardy grass shoots up to 2.5 metres and each part of it has several uses.**

- The **outer layer** of the stem produces the **fibre** that goes into making jute products.
- The **leaves** can be **cooked**. People prepare soups, stews, curries, and vegetable dishes using leaves.
- The inner **woody stems** can be used to manufacture **paper**.
- The roots, which are left in the ground after harvest, improve the yield of subsequent crops.

▪ **Production: West Bengal, Assam, and Bihar** are the major jute-growing states in the country and are mainly cultivated by **marginal and small farmers**.

▪ **Employment: Jute is a labour-intensive crop** and provides huge employment opportunities and benefits to local farmers.

◦ Raw jute farming and trade make up the livelihood of about **14 million people**.

▪ **Importance: Jute, known as the golden fibre, is the second most important cash crop in India** after cotton in terms of cultivation and usage.

◦ **India is the largest producer** of jute in the world.

Jute Industry

The jute industry is among the oldest and most prominent industries in India.



Drishti IAS

The Major Jute-Producing States in India are



The industry employs **3.7 lakh workers**, including workers dependent on the jute industry's forward and backward linkages.

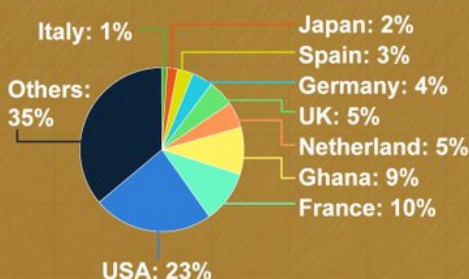
Quantity: in lakh bales [1 bale = 217.72 (approx) kg]

Jute & Mesta Crop	2018-19	2019-20	2020-21	2021-22	2022-23 (Estimated)
Jute & Mesta Crop	72	68	60	90	95

*Source: pib.gov.in

The production of raw jute has increased over the previous years.

Country-wise share of India's jute exports (2021-22)



In the year **2021-2022**, the United States bought the most jute products, like floor coverings, from India compared to any other country. The total amount spent on these

imports was **\$107.13 million**.



What are the Benefits of Using Jute Fibres?

▪ **Biodegradable Alternatives:** Many countries are trying to reduce the use of plastic

commodities, especially [plastic bags](#).

- Jute bags are [biodegradable](#) and environment-friendly alternatives to plastic bags.
- **Value-Added Products:** Along with traditional usage, jute can contribute in the production of value-added products such as **paper, pulp, composites, textiles, wall coverings, flooring, garments**, and other materials.
- **Doubling Farmers' Income:** An acre of land produces approximately **nine quintals** of fibre. While the **fibre** is sold for **Rs 3,500-4,000 per quintal**.
 - The **woody stalk** and the leaves fetch approximately **Rs 9,000**. The earning per acre is approximately **Rs 35,000-40,000**.
- **Sustainability:** Jute requires only **half the land and time**, uses less than **one-fifth of the water in irrigation**, and needs far fewer chemicals compared to cotton.
 - It is largely **pest-resistant**, and its rapid growth spurt ensures that weeds don't stand a chance.
- **Carbon Neutral Crop:** The carbon dioxide emission from jute is **carbon-neutral** in nature since the product is from plant-source and can be considered as a **biomass**.
- **Carbon Sequestration:** Jute can [sequester](#) up to **1.5 tons of carbon dioxide per hectare per year**.
 - This is a significant amount of carbon, and it can help mitigate [climate change](#).
 - Jute is a fast-growing plant, allowing it to absorb a lot of carbon dioxide in a short period of time.

What Challenges are Involved in Jute Farming?

- **Low Availability of Natural Water:** Historically, annual river [flooding](#) would **inundate the fields**, allowing bundled jute stalks to be submerged directly in the fields. It simplified the retting process.
 - Current practices involve **transporting jute** to artificial ponds for retting process due to **reduced flooding**.
- **Unrealised Potential:** The jute industry is operating at **55% capacity**, affecting over **50,000 workers**. The demand for jute bags is projected to drop to **30 lakh bales** for 2024-25.
- **Outdated Technology:** According to the Jute Commissioner's Office, many jute mills in India use machinery that is **over 30 years old**. This leads to reduced operational efficiency and higher production costs.
- **Lack of Product Diversification:** Jute is a versatile fibre with potential applications **insulation (replacing glass wool), geotextiles**, activated carbon powder, wall coverings etc.
 - The lack of products in these high-growth areas means that a significant portion of jute remains underutilised, affecting overall industry growth and sustainability.
- **Concentration of Jute Mills:** There are about **70 jute mills** in the country, of which about **60** are in **West Bengal** along both the banks of **river Hooghly**.
 - It can result in **bottlenecks** and inefficiencies in the distribution of raw materials and finished products.
 - Jute cultivation located outside this region, particularly in **northeastern India**, faces challenges in accessing resources and markets.
- **Inadequate Support:** Despite the [Jute Packaging Materials \(Compulsory Use in Packing Commodities\) Act, 1987](#) the jute sector faces challenges in policy implementation and support.

What are the Government Schemes Related to Jute Industry?

- [Jute Packaging Materials \(Compulsory Use in Packing Commodities\) Act, 1987](#)
- [Technical Textiles Mission](#)
- **Minimum Support Price for Jute**
- **National Jute Policy 2005**
- **Jute Technology Mission (JTM)**
- **Jute SMART**

Way Forward

- **Golden Fiber Revolution:** A '[Golden Fibre Revolution](#)' has long been called for by various

stakeholders.

- It focuses on increasing **jute cultivation**, enhancing the quality of jute products, promoting exports, and improving the livelihood of jute farmers and workers.
- **Flood Management:** Advocate for **water management practices** that can help restore natural flooding patterns or **simulate** them through **controlled irrigation**. This will ease the retting process and reduce dependency on artificial methods.
- **Upgrade Machinery:** Encourage investment in new technologies and machinery for jute processing. The government could offer **subsidies or low-interest loans** to mills for technological upgrades.
- **Promote Product Innovation:** Support research and development to explore new applications for jute, such as geotextiles, and activated carbon. Engage with industry experts to develop new product lines.
 - Companies can be provided **tax benefits, grants, or subsidies** to encourage innovation and market expansion.
- **Enforce and Expand Policies:** Ensure effective implementation of the **Jute Packaging Materials (Compulsory Use in Packing Commodities) Act, 1987**. Review and update the Act to address current industry needs and market conditions.
- **Policy and Industry Review:** Regularly review and adjust policies and industry practices to reflect changing market conditions and technological advancements.

Drishti Mains Question:

Q. Critically analyse the challenges faced by jute industry and suggest a comprehensive strategy to revitalise it.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims

Q. The lower Gangetic plain is characterised by a humid climate with high temperature throughout the year. Which one among the following pairs of crops is most suitable for this region? (2011)

- (a) Paddy and cotton
- (b) Wheat and Jute
- (c) Paddy and Jute
- (d) Wheat and cotton

Ans: (c)

Mains

Q. Explain various types of revolutions, took place in Agriculture after Independence in India. How have these revolutions helped in poverty alleviation and food security in India? (2017)