RESURGENT AGRIC

Jute Report

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2. Agricultural and Botanical details of Jute

Jute is a long, soft, shiny bast fiber that can be spun into coarse, strong threads. It is produced from flowering plants in the genus Corchorus, which is in the mallow family Malvaceae. The primary source of the fiber is Corchorus olitorius, but it is considered inferior to Corchorus capsularis. "Jute" is the name of the plant or fiber used to make burlap, hessian or gunny cloth. Jute is one of the most affordable natural fibers, and second only to cotton in the amount produced and variety of uses. Jute fibers are composed primarily of the plant materials cellulose and lignin. It falls into the bast fiber category (fiber collected from bast, the phloem of the plant, sometimes called the "skin") along with kenaf, industrial hemp, flax (linen), ramie, etc. The industrial term for jute fiber is raw jute. The fibers are off-white to brown, and 1–4 metres (3–13 feet) long. Jute is also called the "golden fiber" for its color and high cash value.

Jute is an annual crop taking about 120 days (April/May-July/August) to grow.. The jute plant needs a plain alluvial soil and standing water. The suitable climate for growing jute (warm and wet) is offered by the monsoon climate, during the monsoon season. Temperatures from 20 to 40 °C (68–104 °F) and relative humidity of 70%–80% are favourable for successful cultivation. Jute requires 5–8 cm (2–3 in) of rainfall weekly, and more during the sowing time. Soft water is necessary for jute production. White jute (Corchorus capsularis) and Tossa jute (Corchorus olitorius) are the types of jute.

The interesting thing about growing jute is that it hardly needs fertilizers and pesticides. After the stems are harvested from the plant, they are subjected to ‘retting’, wherein they are steeped into slow running water for 10 to 30 days in order to allow for bacteria to dissolve the gummy materials holding the fibres together. After this, the non-fibrous matter of jute is scraped off in a process called ‘stripping’, and then the fibres are separated by beating the stem with a paddle. The separated fibres are then washed, dried, graded, and sent off to jute mills, where they are further processed to make jute yarn. The yarn is then used for the production of the various jute products.

The jute fibres can be extracted by either biological or chemical retting processes. Given the expense of using chemicals to strip the fibre from the stem biological processes are more widely practices. Biological retting can be done by either by stack, steep and ribbon processes which involve different techniques of bundling jute stems together and soaking in water to help separate the fibres from the stem before stripping. After the retting process, stripping begins. In the stripping process, non-fibrous matter is scraped off, leaving the fibres to be pulled out from within the stem.

Jute fibre is 100% biodegradable and recyclable and thus environmentally friendly. A hectare of jute plants consumes about 15 tonnes of carbon dioxide and releases 11 tonnes of oxygen. Cultivating jute in crop rotations enriches the fertility of the soil for the next crop. Jute also does not generate toxic gases when burnt.

3. Uses of the Jute

Jute matting is used to prevent flood erosion while natural vegetation becomes established. For this purpose, a natural and biodegradable fiber is essential.Jute is the second most important vegetable fiber after cotton due to its versatility. Jute is used chiefly to make cloth for wrapping bales of raw cotton, and to make sacks and coarse cloth. The fibers are also woven into curtains, chair coverings, carpets, area rugs, hessian cloth, and backing for linoleum.

While jute is being replaced by synthetic materials in many of these uses,[citation needed] some uses take advantage of jute's biodegradable nature, where synthetics would be unsuitable. Examples of such uses include containers for planting young trees, which can be planted directly with the container without disturbing the roots, and land restoration where jute cloth prevents erosion occurring while natural vegetation becomes established. Jute is extensively used for sacking for agriculture goods as well as being used increasingly in rigid packaging and reinforced plastic and is replacing wood in pulp and paper.

The fibers are used alone or blended with other types of fiber to make twine and rope. Jute butts, the coarse ends of the plants, are used to make inexpensive cloth. Conversely, very fine threads of jute can be separated out and made into imitation silk. As jute fibers are also being used to make pulp and paper, and with increasing concern over forest destruction for the wood pulp used to make most paper, the importance of jute for this purpose may increase. Jute has a long history of use in the sackings, carpets, wrapping fabrics (cotton bale), and construction fabric manufacturing industry.

Jute is used in the manufacture of a number of fabrics, such as Hessian cloth, sacking, scrim, carpet backing cloth (CBC), and canvas. Hessian, lighter than sacking, is used for bags, wrappers, wallcoverings, upholstery, and home furnishings. Sacking, a fabric made of heavy jute fibers, has its use in the name. CBC made of jute comes in two types. Primary CBC provides a tufting surface, while secondary CBC is bonded onto the primary backing for an overlay. Jute packaging is used as an eco friendly substitute.Diversified jute products are becoming more and more valuable to the consumer today. Among these are espadrilles, soft sweaters and cardigans, floor coverings, home textiles, high performance technical textiles, geotextiles, composites, and more.

Jute floor coverings consist of woven and tufted and piled carpets. Jute mats and mattings with 5/6 mts width and of continuous length are easily being woven in southern parts of India, in solid and fancy shades, and in different weaves, like bouclé, Panama, herringbone, etc. Jute mats and rugs are made both by powerloom and handloom in large volume in Kerala, India. The traditional Satranji mat is becoming very popular in home décor. Jute nonwovens and composites can be used for underlay, linoleum substrate, and more.Jute has many advantages as a home textile, either replacing cotton or blending with it. It is a strong, durable, color and light-fast fiber. Its UV protection, sound and heat insulation, low thermal conduction and anti-static properties make it a wise choice in home décor. Also, fabrics made of jute fibers are carbon-dioxide neutral and naturally decomposable. These properties are also why jute can be used in high performance technical textiles.

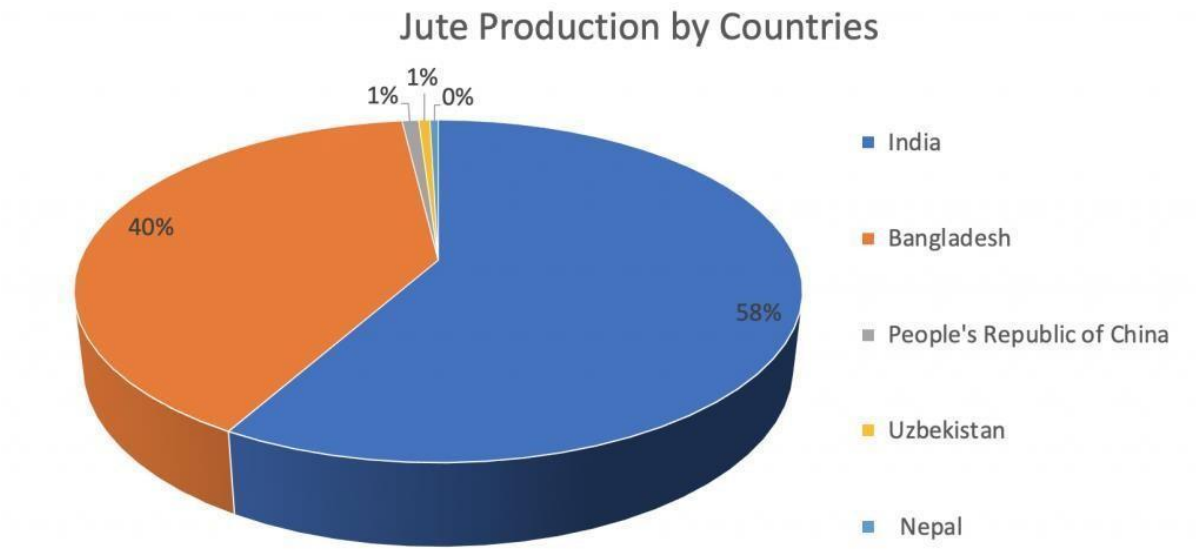
Moreover, jute can be grown in 4–6 months with a huge amount of cellulose being produced from the jute hurd (inner woody core or parenchyma of the jute stem) that can meet most of the wood needs of the world.Jute is also used to make ghillie suits, which are used as camouflage and resemble grasses or brush.Another diversified jute product is geotextiles, which made this agricultural commodity more popular in the agricultural sector. It is a lightly woven fabric made from natural fibers that is used for soil erosion control, seed protection, weed control, and many other agricultural and landscaping uses. The geotextiles can be used more than a year and the biodegradable jute geotextile left to rot on the ground keeps the ground cool and is able to make the land more fertile.

Culinary uses

Corchous olitorius leaves are used to make molokhia, sometimes considered the Egyptian national dish, but consumed in Cyprus and other Middle Eastern countries as well. It is an ingredient for stews, typically cooked with lamb or chicken.

In Nigeria, leaves of Corchorus olitorius are prepared in sticky soup called ewedu together with ingredients such as sweet potato, dried small fish or shrimp.[17] The leaves are rubbed until foamy or sticky before adding to the soup. Amongst the Yoruba of Nigeria, the leaves are called Ewedu, and in the Hausa-speaking northern Nigeria, the leaves are called turgunuwa or lallo. The cook cuts jute leaves into shreds and adds them to the soup, which normally also contains ingredients such as meat or fish, pepper, onions, and spices. Likewise, the Lugbara of Northwestern Uganda eat the leaves in a soup they call pala bi. Jute is also a totem for Ayivu, one of the Lugbara clans.In the Philippines, especially in Ilocano-dominated areas, this vegetable, locally known as saluyot, can be mixed with either bitter gourd, bamboo shoots, loofah, or sometimes all of them. These have a slimy and slippery texture.

4.Production -Geographical locations Countries in world (Top10)



Top ten jute producers, by metric ton, as of 2014[13]

Country	Production (Tonnes)
India	1,968,000
Bangladesh	1,349,000
People's Republic of China	29,628
Uzbekistan	20,000
Nepal	14,890
South Sudan	3,300
Zimbabwe	2,519

Egypt	2,508

Top ten jute producers, by metric ton, as of 2014[13]

Country	Production (Tonnes)
Brazil	1,172
Vietnam	970
World	**3,393,248**

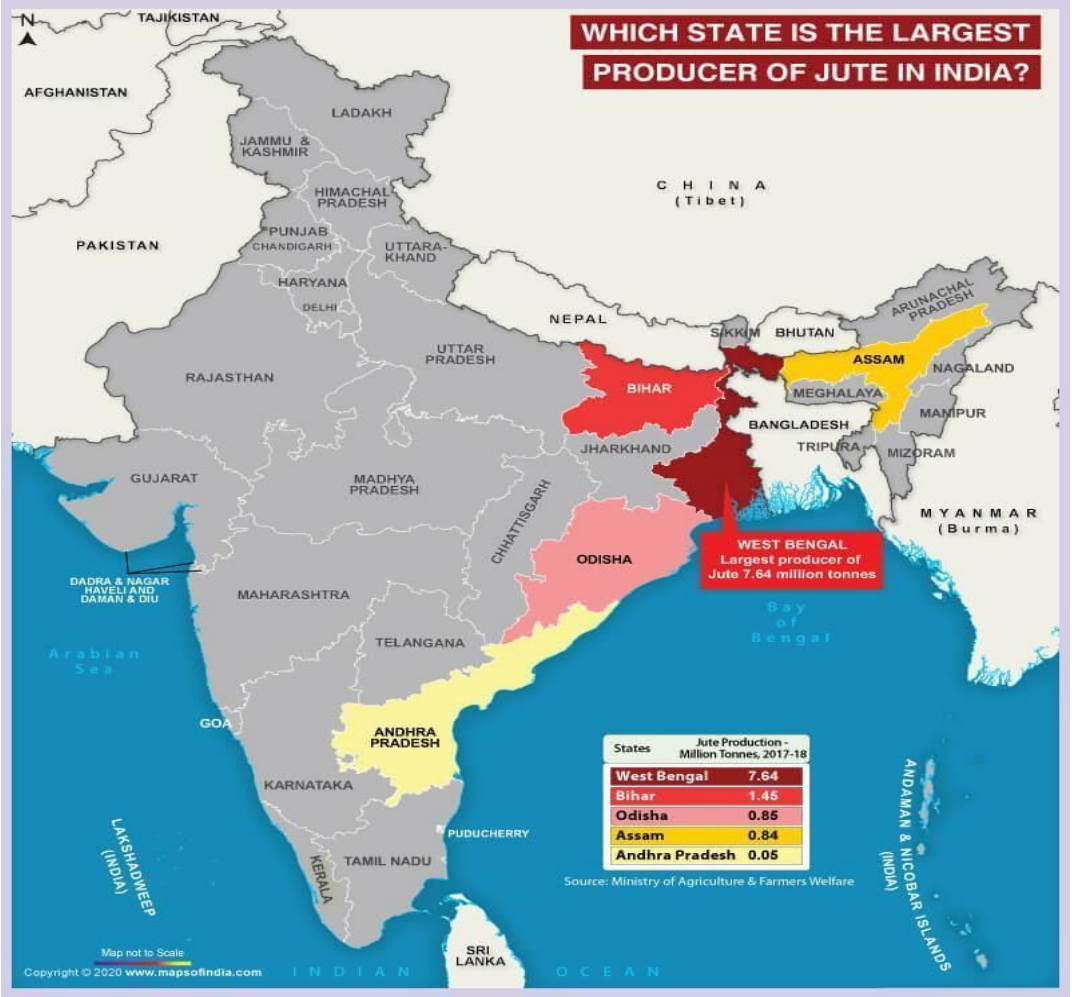
India, China, and Bangladesh are the three major producers in the cultivation or production of jute fiber.

India has taken advantage of recent improvements in the cultivation of jute to become the largest producer or cultivator of jute in the world. Using advanced production techniques, India also has dominance over the worldwide jute products market. Due to national law to use jute as packaging materials, India is the largest consumer of jute in the world.

Bangladesh is currently the second largest producer of jute fiber, now over taken by India. The Jat Area, popular for highest quality of jute fiber is located in Bangladesh. Therefore, Bangladesh is able to supply the highest quality of jute fiber in the world. However, Bangladesh falls behind its other competitors in applying recent technological advancements. In terms of world export of jute fiber, Bangladesh's share is more than 70%, which makes Bangladesh the largest exporter of jute fiber in the world.

China is the third largest in terms of jute cultivation. Due to China's huge population, the Chinese are not emphasizing the cultivation of jute, as it competes with other necessary crops. Due to modern effective agriculture, they have the highest yield of jute fiber in the world.

5.Production - States and districts in India (Top10)



The state of West Bengal tops the list of jute producing states with 7.64 million tonnes of Jute production in the year 2017-18. The state alone produces more than 75% of the jute in the country. Jute is grown in parts of the lower Ganges plains, especially in the districts of Midnapur, Bardhaman, 24 Paraganas, Malda, Murshidabad, etc.

Bihar comes in second place with 1.45 million tonnes of jute produced in the year 2017-18. Districts like Purnea, Darbhanga, Saharsa, and Katihar are the major jute producing districts of the state.The state of Odisha occupies the third place with a production of 0.85 million tonnes of jute in the year 2017-18.

Assam comes next in the list of top jute producing states with an estimated 0.84 million tonnes of jute in the year 2017-18. Tezpur, Goalpara, Darrang, Sibsagar, etc. are the major jute producing areas of the state. Assam is closely followed by Andhra Pradesh, with 0.05 million tonnes of jute in the year 2017-18. The rest of the states produce a very small amount of jute.

6.Varieties of Jute Grown and the Quality Metrics

1.TOSSA JUTE (Corchorus olitorius)

2.WHITE JUTE (*C. capsularis*)

3. KENAF (Hibiscus canabinus)

Above are the three varieties grown in India. Please follow the below link for getting information about the different hybrid varieties of the same.

https://aicrp.icar.gov.in/ainpjaf/achievements/details-of-varieties/

The six physical parameters viz., strength, fineness, colour, root content, defects and density of jute fibres are assessed for sorting out the fibre into eight different grades. Relative weightage is given to each physical parameter by standard scoring system and the grade of fibre is determined by total score of the six parameters.

Several soil quality parameters influence fiber quality. Different aspects of retting, right from quality and quantity of retting water,microorganisms with balanced pectinolytic and xylanase activities with minimal or low cellulase activities, largely determine fiber quality. Efficient pectinolytic bacteria as well as fungi could be used in retting process.

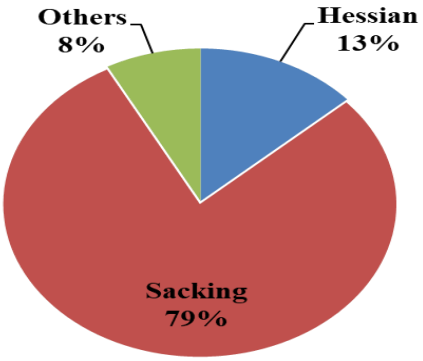
Jute plants require 100 to 130 days from seed germination to maturity and the crop is harvested from June through October, C. capsularis usually harvested earlier than C. olitorius (Banerjee 1955). Harvesting may be performed at three stages of crop development: (a) when the flowers begin to appear; (b) when the plants are in full flower or fruit; (c) when all the plants are fully mature. Harvesting is usually carried out at the second stage when about half of the plants have fully developed fruit. The yield then is good and the quality of fiber is excellent (Banerjee 1955). At the earlier stage, most plants are immature and the fiber is weak and low in yield. At the later stage, the fiber becomes coarse and reddish. As the jute plant grows older, the tissues become more mature; the structure of the decomposable matters like pectins and hemicelluloses may change to more resistant forms and their quantity may increase. As a result, microorganisms take longer time to get a plant (Ahmed and Akhter 2001). Usually, fiber loss is 17.3% and 9.5% if 75-day-old plant and 120 days are ribboned, respectively.

7.Consumption(qty and value)

	Hessian	Sacking	Total incl others	% to total jute goods production
2014-15	171.9	870.4	1153.7	91%
2015-16	164.2	890.2	1144.8	94%
2016-17	140.9	855.6	1075.4	94%
2017-18	141.9	894.3	1112.7	94%
2018-19	130.2	900.1	1113.6	96%

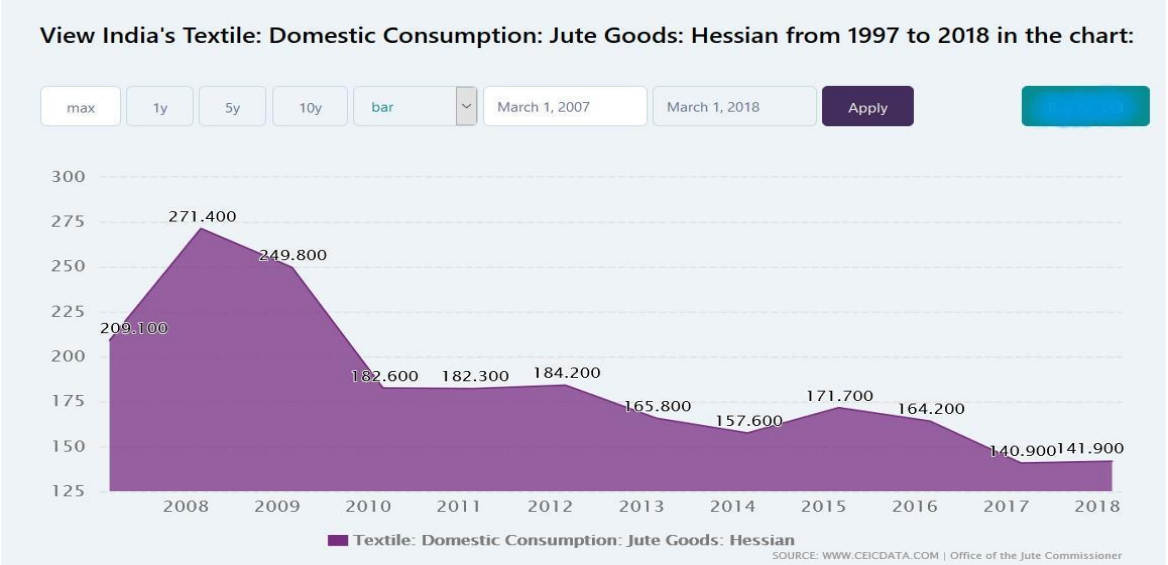
Qty.: 000' M. Tons

	Hessian	Sacking	Total	% to total jute goods products
Average consumption of jute goods during 5 years	149.8	882.1	1119.9	94%
% to total consumption	13 %	79 %		



Domestic Consumption of jute goods has been declining**.** India's Textile: Domestic Consumption: Jute Goods data was reported at 1,112.600 Metric Ton th in 2018. This records an increase from the previous number of 1,075.700 Metric Ton th for 2017. India's Textile: Domestic Consumption: Jute Goods data is updated yearly, averaging 1,375.750 Metric Ton th from Mar 1997 to 2018, with 22 observations. The data reached an all-time high of 1,543.300 Metric Ton th in 2008 and a record low of 1,075.700 Metric Ton th in 2017. India's Textile: Domestic Consumption: Jute Goods data remains active status in CEIC and is reported by Office of the Jute Commissioner. The data is categorized

under India Premium Database's Textile Sector – Table IN.RSE005: Textile: Consumption: Jute Goods.Following graphs are in metric tonne:



8.Exports- qty and value

Commodity	Indicator	2013	2014	2015	2016	2017	2018	2019
5303. Jute and other textile bast fibres (excluding flax, true hemp and ramie), raw or processed but not spun; tow and waste of these fibres (including yarn waste.	Netweight (kg)	1,67,11,303.00	2,90,38,822.00	1,78,94,451.00	1,67,10,069.00	1,49,97,797.00	98,29,813.00	1,76,09,227.00
	Quantity	1,67,11,303.00	2,90,38,822.00	1,78,94,451.00	1,67,10,069.00	1,49,97,797.00	98,29,813.00	
	Value (US$)	91,03,220.00	1,58,10,968.00	1,05,57,560.00	1,16,60,421.00	81,53,748.00	55,72,701.00	1,28,54,290.00
	Netweight (kg)	8,34,90,579.00		4,53,65,057.00			7,70,81,958.00	

13,77,63,470.00 6,59,13,782.00
6,25,84,825.00 7,62,30,658.00

The value of exports of commodity group 5303 "Jute and other textile bast fibres (excluding flax, true hemp and ramie), raw or processed but not spun; tow and waste of these fibres (including yarn waste and garnetted stock)." from India totalled **$ 12.8 million** in 2019. Sales of group 5303 from India **went up by 130%** compared to 2018: exports of these commodity went up by $ 7.28 million (cumulative exports of commodity group 5303 from India amounted $5.57 million in 2018). Exports of commodity group 5303 amounted to **0.003% of total exports** from India (cumulative merchandise exports from India totalled $ 323 billion in 2019). The share of commodity group 5303 in total exports from India increased by 0.002 p.p. compared to 2018 (it was 0.001% in 2018 and cumulative exports from India were equal to $ 322 billion). Exports of group 5303 amounted to 2.87% of total sales of group "" from India in 2019 (the value of exports of commodity group from India amounted to $446 million in 2019).

The share of exports of commodity group 5303 in sales of commodity group from India increased by 1.54 p.p. compared to 2018 (it was 1.33% in 2018, and exports from India were $418 million).Statistic of Exports of Jute Goods from India - IJMA(follow the site for getting on jute products export)

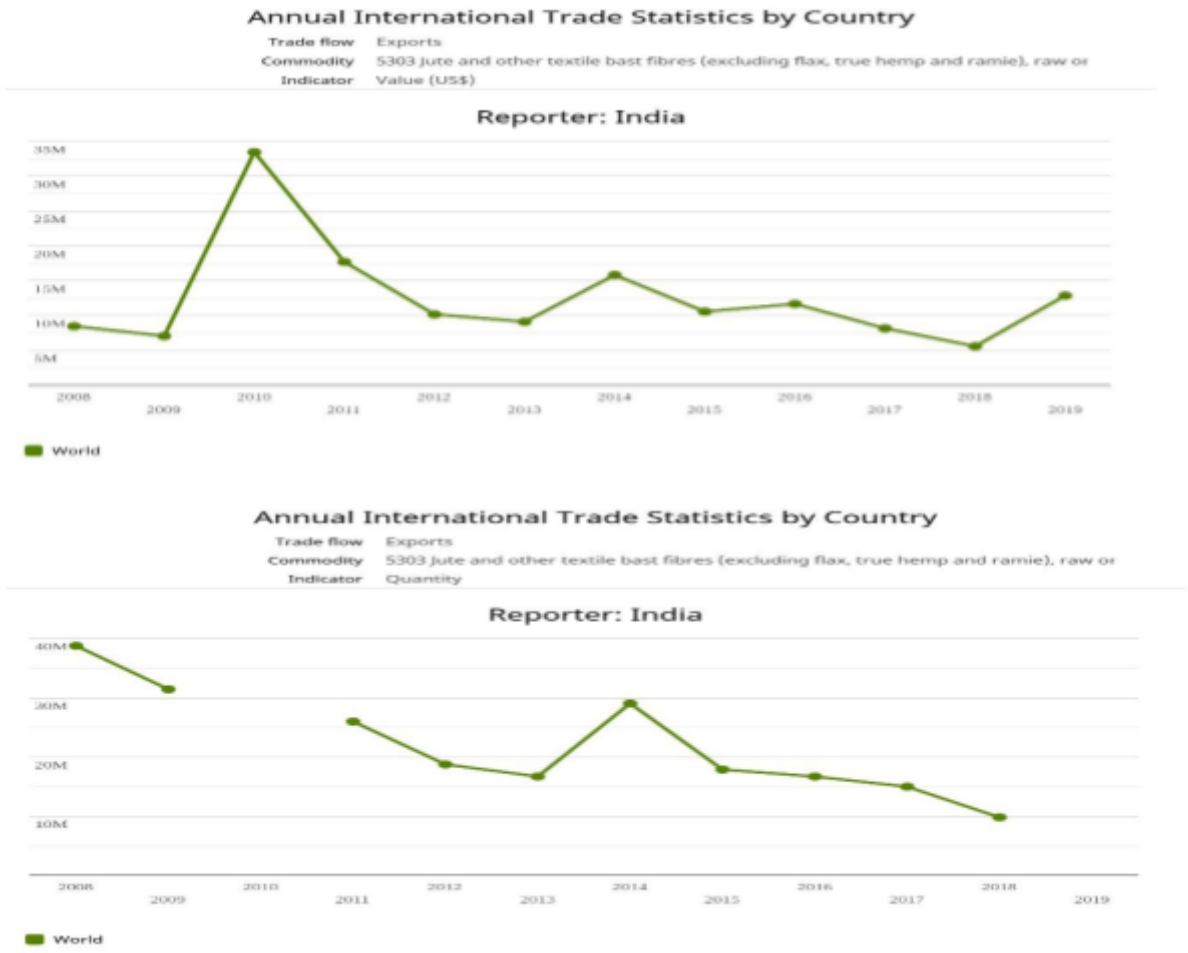
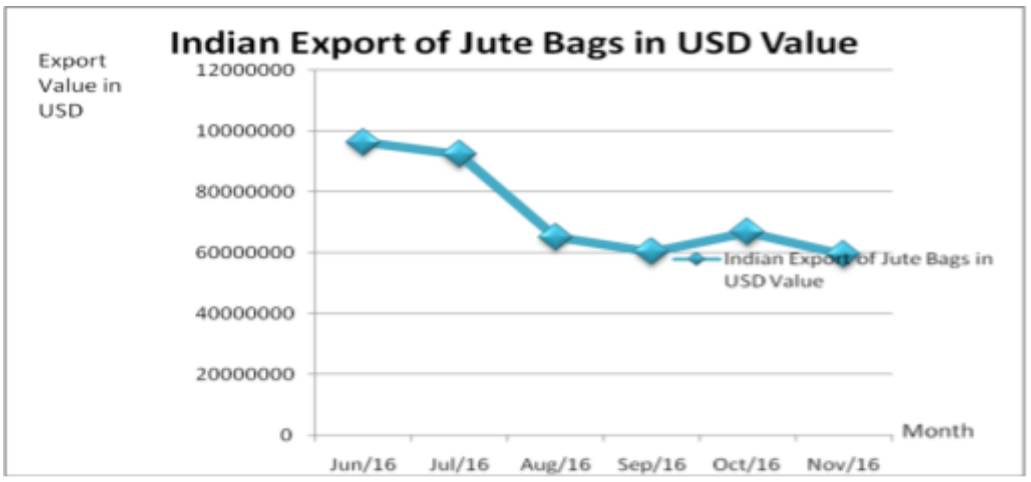
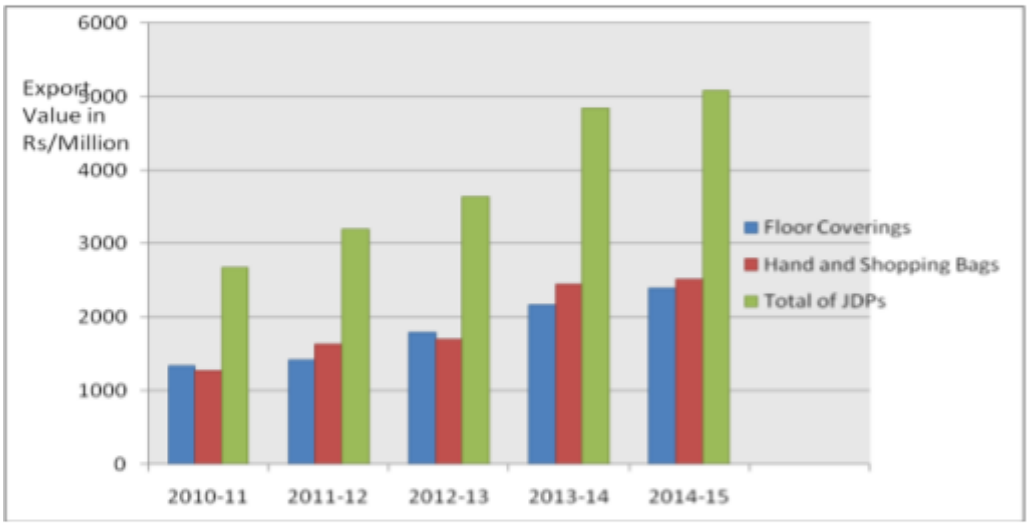
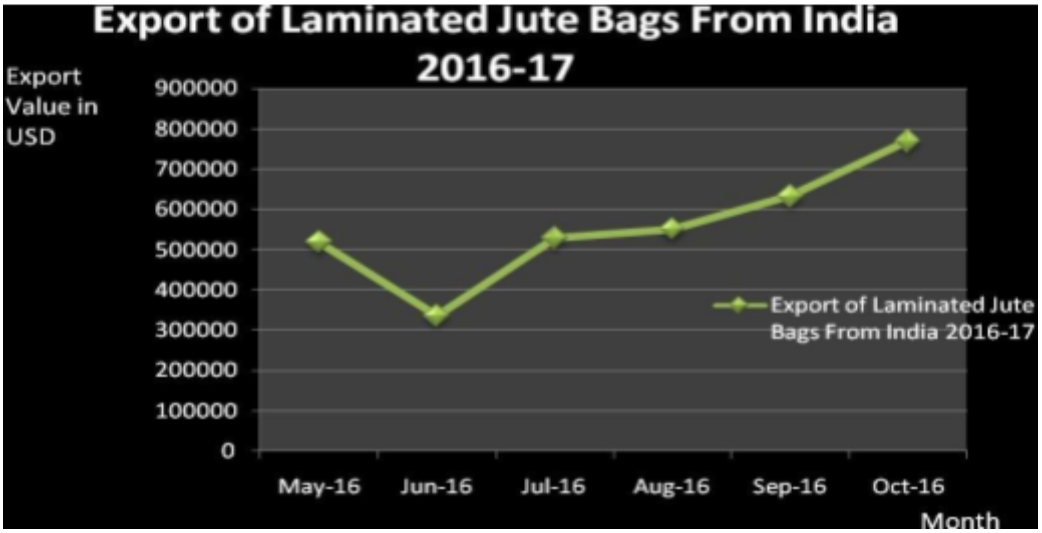


Fig. Indian Export of Jute Bags in USD Values







9.Major production organisations-address /email/mob/.websites

1.https://matchory.com/top-jute-textile-manufacturing-companies

2.Premchand Jute Industries

(http://www.premchandjute.com/products/) 3. View Bangla Jutex

(https://sites.google.com/site/viewbanglajutex/home)

https://indiancompanies.in/top-8-jute-manufacturing-companies-in-i

ndia/ Manufactures and Exporters of Jute Bags

http://www.worldjute.com/directory/directory_expo_bags.html

10. Major Domestic sales organisations in india .address/email/mob/website .special reference to top brands of online sales B to C

1.Jute Palace (https://www.jutepalace.in/)

Please follow the link for getting information and contacts of jute

mills Jute Mills in India

11.Major Export organisations in India address/email/mob/website

Please follow the following site of National Jute Board for getting information about the jute exporters
http://www.jute.com/web/guest/products-suppliers/supplier-database/exporters

12. Major importing countries of Indian produce of the Jute

EXPORT OF ALL JUTE GOODS TO TOP 20 IMPORTING COUNTRIES (VALUEWISE)

Value : Rs./Million

	2014 - 2015			2015 - 2016			2016 - 2017			2017 - 2018			2018 - 2019		
Sl. No.	Country	Value	%	Country	Value	%	Country	Value	%	Country	Value	%	Country	Value	%
1	U S A	4,244.01	23	U S A	4,259.29	23	U S A	4,153.10	20	U S A	4,540.69	21	U S A	4,927.31	22
2	U K	1,431.07	8	U K	1,790.59	9	GHANA	1,686.18	8	GHANA	1,838.75	9	GHANA	2,583.83	11
3	GHANA	1,292.82	7	GHANA	1,603.29	8	U K	1,559.22	8	U K	1,418.15	7	U K	1,588.23	7
4	NETHERLAND	1,089.05	6	GERMANY	874.67	5	GERMANY	998.10	5	COTE D' IVOIRE	1,075.29	5	NETHERLAND	1,146.20	5
5	GERMANY	941.96	5	NETHERLAND	868.22	5	NETHERLAND	983.70	5	GERMANY	997.48	5	AUSTRALIA	987.03	4
6	SAUDI ARAB	898.83	5	COTE D' IVOIRE	851.15	4	AUSTRALIA	824.01	4	NEPAL	925.93	4	GERMANY	971.86	4
7	AUSTRALIA	582.36	3	SAUDI ARAB	812.19	4	SAUDI ARAB	717.41	3	NETHERLAND	826.29	4	COTE D' IVOIRE	811.50	4
8	COTE D' IVOIRE	509.56	3	AUSTRALIA	782.42	4	COTE D' IVOIRE	680.53	3	SAUDI ARAB	784.99	4	SPAIN	766.32	3
9	U ARAB EMTS	466.53	3	U ARAB EMTS	488.84	3	SUDAN	561.77	3	AUSTRALIA	483.70	2	INDONESIA	528.16	2
10	BELGIUM	392.53	2	TURKEY	402.67	2	U ARAB EMTS	510.98	2	U ARAB EMTS	471.74	2	NEW ZEALAND	526.86	2
11	SUDAN	360.75	2	CANADA	388.73	2	CANADA	429.47	2	TURKEY	421.44	2	SAUDI ARAB	521.35	2
12	ITALY	357.50	2	SPAIN	327.01	2	ITALY	424.30	2	INDONESIA	395.69	2	FRANCE	475.86	2
13	EGYPT A RP	342.54	2	BELGIUM	326.41	2	EGYPT A RP	392.27	2	CANADA	386.32	2	ITALY	399.94	2
14	CANADA	293.17	2	ITALY	283.86	2	SPAIN	347.25	2	BELGIUM	374.65	2	U ARAB EMTS	396.69	2
15	JAPAN	286.84	2	JAPAN	283.01	1	NEW ZEALAND	333.83	2	ITALY	373.85	2	BELGIUM	369.32	2
16	TANZANIA REP	286.63	2	EGYPT A RP	281.16	1	BELGIUM	329.45	2	SPAIN	367.05	2	JAPAN	340.60	1
17	BRAZIL	269.05	1	NEW ZEALAND	272.20	1	TANZANIA REP	326.11	2	EGYPT A RP	359.05	2	CANADA	331.50	1
18	INDONESIA	231.54	1	INDONESIA	268.01	1	TURKEY	325.12	2	TANZANIA REP	318.10	1	SUDAN	327.04	1
19	SPAIN	227.54	1	TANZANIA REP	244.34	1	JAPAN	285.09	1	NEW ZEALAND	314.63	1	TANZANIA REP	326.96	1
20	TURKEY	218.02	1	IRAN	177.44	1	FRANCE	274.47	1	FRANCE	306.80	1	PERU	198.21	1
	Total of 20 Countries	**14,722.30**	**81**	**Total of 20 Countries**	**15,585.50**	**81**	**Total of 20 Countries**	**16,142.36**	**79**	**Total of 20 Countries**	**16,980.59**	**80**	**Total of 20 Countries**	**18,524.77**	**79**
	Total Export	**18,138.10**		**Total Export**	**18,923.44**		**Total Export**	**20,742.07**		**Total Export**	**21,585.00**		**Total Export**	**22,732.72**	

Where does India export Jute and other textile bast fibres (excluding flax, true hemp and ramie), raw or processed but not spun; tow and waste of these fibres (including yarn waste and garnetted stock).?

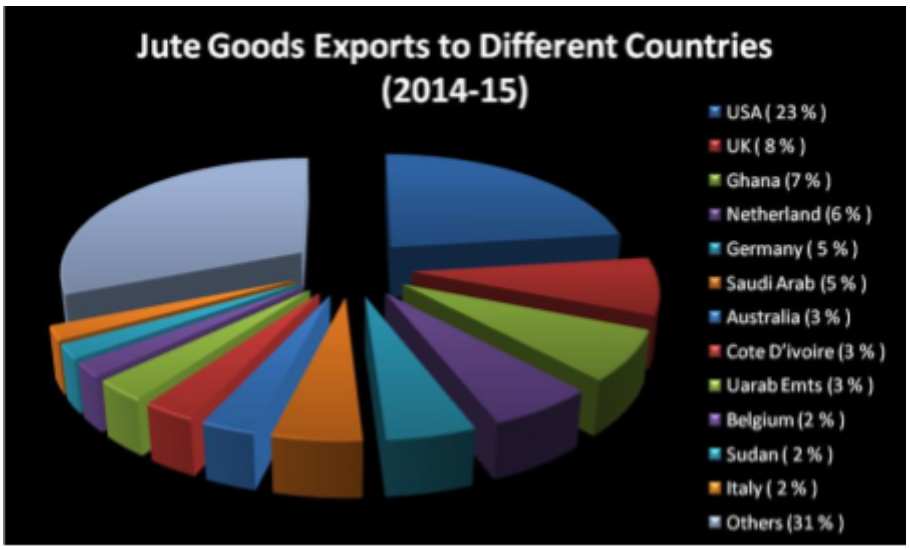
Top export destinations of "Jute and other textile bast fibres (excluding flax, true hemp and ramie), raw or processed but not spun; tow and waste of these fibres (including yarn waste and garnetted stock)." from India in 2019:

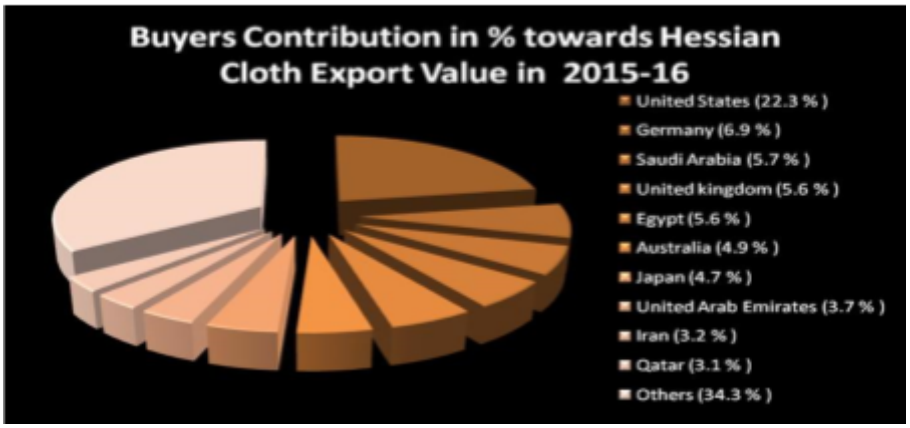
- Nepal with a share of 96% (12.3 million US$)
- USA with a share of 2.04% (262 thousand US$)
- Djibouti - 48 thousand US$
- Belgium - 40 thousand US$
- Ethiopia - 35 thousand US$
- United Kingdom - 20 thousand US$
- Bangladesh - 17.2 thousand US$
- Netherlands - 17.1 thousand US$

- Japan - 6.89 thousand US$
- Philippines - 6.51 thousand US$

Exports structure of 5303 - Jute and other textile bast fibres (excluding flax, true hemp and ramie), raw or processed but not spun; tow and waste of these fibres (including yarn waste and garnetted stock). - from India in 2019 represented by the following main commodity groups:

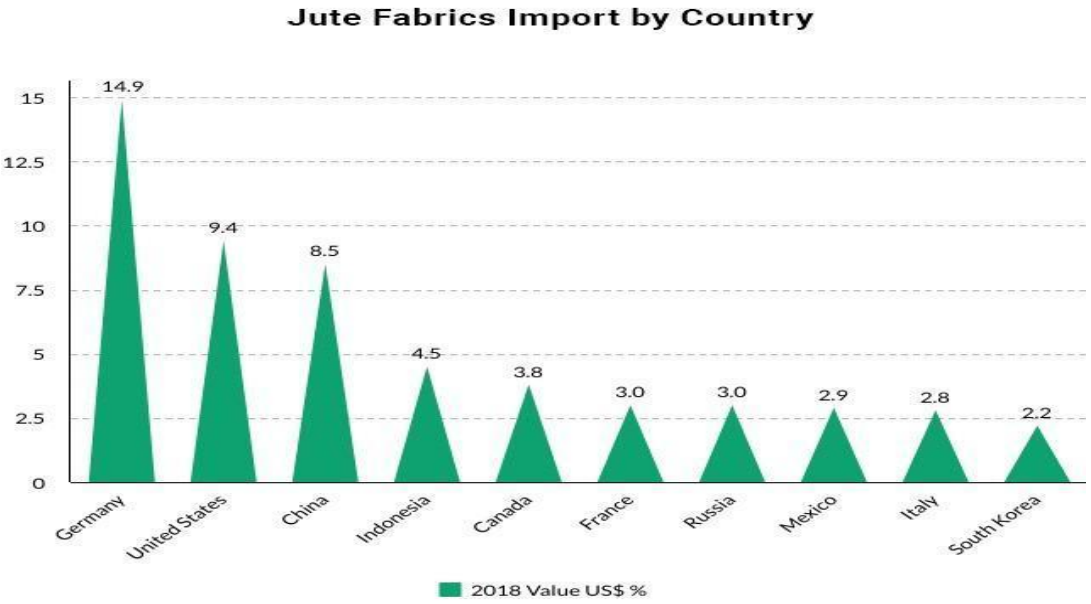
- **99%** (12.8 million US$): **530310** - Jute & other. textile bast fibres, raw/retted
- **0.275%** (35 thousand US$): **530390** - Jute & other. textile bast fibres (excl. flax, true hemp & ramie), raw/processed but not spun (excl. of 5303.10); tow & waste of these fibres (incl. yarn waste & garnetted stock)





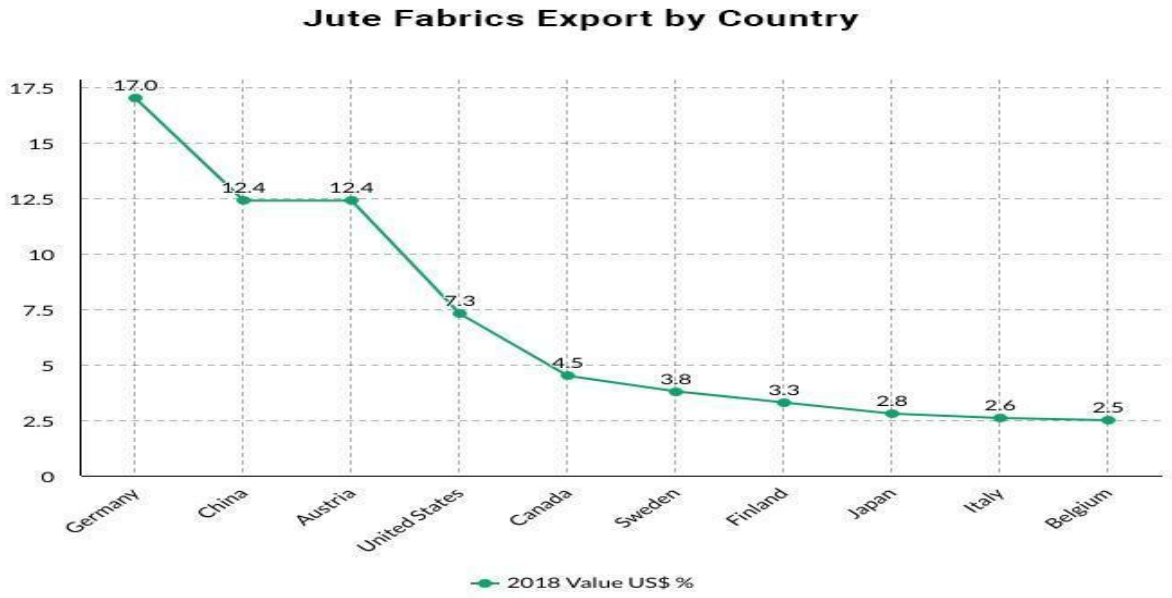
13.Network of origin countries and importing countries other than India of Jute

Jute Fabrics:Jute fabrics export globally valued US$ 856.1 million in 2018, while imports recorded US$ 788.2 million. Below given chart and table shows top importer and exporter countries of jute fabrics.



Country	2018 Value US$ Million	2018 Value US$ %
Germany	116.7	14.9
United States	105.9	9.4
China	80.9	8.5
Indonesia	46.9	4.5
Canada	40.1	3.8
France	38.5	3.0
Russia	29.9	3.0
Mexico	28.5	2.9
Italy	27.8	2.8
South Korea	27.1	2.2

Germany is the largest exporter country of jute fabrics, shared 17% value to total exports. Here is the list of top 10 exporter countries of jute fabrics.



Country	2018 Value US$ Million	2018 Value US$ %
Germany	879.2	17.0%
China	642.4	12.4%
Austria	639.7	12.4%
United States	378.8	7.3%
Canada	232.8	4.5%
Sweden	195.5	3.8%
Finland	169.3	3.3%
Japan	143.8	2.8%
Italy	136.7	2.6%
Belgium	131.2	2.5%

Bangladesh dominates jute exports structure, reaching 229K tonnes, which was near 79% of total exports in 2018. It was distantly followed by India (14K tonnes), creating a 4.8% share of total exports. The following exporters – Tanzania (12,710 tonnes), Belgium (10,536 tonnes), Kenya (8,787 tonnes) and Malaysia (4,638 tonnes) – together made up 13% of total exports.Exports from Bangladesh decreased at an average annual rate of -8.0% from 2007 to 2018. At the same time, Malaysia (+33.3%), Belgium (+6.0%) and Tanzania (+1.5%) displayed positive paces of growth. Moreover,
Malaysia emerged as the fastest-growing exporter in the world, with a CAGR of +33.3% from 20072018. By contrast, Kenya (-1.9%) and India (-6.6%) illustrated a downward trend over the

same period. From 2007 to 2018, the share of Belgium and Malaysia increased by +1.7% and +1.5% percentage points, while India (-5.4 p.p.) and Bangladesh (-117.5 p.p.) saw their share reduced. The shares of the other countries remained relatively stable throughout the analyzed period.In value terms, Bangladesh ($158M) remains the largest jute supplier worldwide, comprising 74% of global exports. The second position in the ranking was occupied by Tanzania ($18M), with a 8.2% share of global exports. It was followed by Kenya, with a 6.5% share.From 2007 to 2018, the average annual rate of growth in terms of value in Bangladesh amounted to -1.8%. In the other countries, the average annual rates were as follows: Tanzania (+5.8% per year) and Kenya (+2.4% per year).

Pakistan (91K tonnes) and India (64K tonnes) represented the largest importers of jute and jute–like fibers in 2018, amounting to near 31% and 22% of total imports, respectively. Nepal (41K tonnes) took the next position in the ranking, followed by China (31K tonnes). All these countries together took approx. 25% share of total imports. The following importers – Germany (8,103 tonnes), the UK (6,147 tonnes), Cote d'Ivoire (5,799 tonnes), Brazil (5,503 tonnes) and South Korea (4,465 tonnes) – together made up 10% of total imports.

From 2007 to 2018, the most notable rate of growth in terms of imports, amongst the main importing countries, was attained by Germany, while the other global leaders experienced more modest paces of growth.In value terms, the largest jute importing markets worldwide were Pakistan ($49M), India ($40M) and Nepal ($23M), with a combined 56% share of global imports.Nepal recorded the highest rates of growth with regard to imports, in terms of the main importing countries over the last eleven years, while the other global leaders experienced more modest paces of growth.

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14 Apex bodies /Associations of Jute in the world and in India

Bureau of Indian Standards

Centre Research Institute for Jute & Allied Fabrics

Export Inspection Agency

Gunny Traders Association (GTA)

Indian Jute Industries Research Association (IJIRA)

Indian Jute Mills Association (IJMA)

Institute of Jute Technology

Jute Manufactures Development Council (JMDC)

Kolkata Jute Fabrics Shippers Association

National Centre for Jute Diversification (NCJD)

National Institute of Research on Jute & Allied Fibre Technology (NIRJAFT)

National Jute Board of India

National Jute Manufactures Corporation Ltd.(NJMC)

Office of Development Commissioner (Handloom)

Office of Jute Commission (Ministry of Textile)
The Directorate of Jute Development

The East India Jute & Hessian Exchange Ltd.
The Jute Baler's Association

The Jute Corporation of India (JCI)

The Lagan Jute Machinery Co. Ltd.

The International Jute Study Group (IJSG)
COTTON TEXTILE RESEARCH ASSOCIATIONS

Bangladesh Jute Research Institute
Nepal Jute Mills Association (NJMA)

15.Commodity Exchanges of Jute in the world and India

The yearly price volatility (ups and downs for a period of time) for raw jute is around 12.6%.

Jute futures- these are traded and exchanged by a fair bond to make and accept delivery of a certain quality and quantity of Jute during the period in the future, at a price confirmed upon at the time the engagement is made.Jute futures are highly standardized products. Future prices are quoted for jute products with accurate specifications delivered at a discussed location during a specified period of time. The exchange assures a mechanism that makes sure that the contract will be honored, and therefore shuns out any counter party risk. This is because the two parties to the transaction trade without too much exchange on the information of the parties.

Traded mainly in **Indian Commodity Exchange (ICEX)**,**NCDEX and NMCE (National Commodity and Derivatives Exchange Ltd. and National Multi Commodity Exchange of India Ltd. respectively.)**

Bangladesh Jute & Commodity Exchange (BDCOMEX) is an organized, national level, automated Commodity Exchange established in the year 2010 with the aim to serve the Market for everyone by facilitating a hi-tech online market-place conforming to international standard and practices for easy market access to producers, traders, bulk dealers, and consumers etc. to trade in the wide spectrum of commodities ranging from billions to local agricultural products.

16. Major challenges in the domestic trade of Jute.

1.Declining interest of the product manufacturers

It has been observed that there is decline in the interest of the manufacturers of jute products. The following are the major causes:Shortage of raw material, High cost of manufacturing; Less profit is gained as compared to the cost of investment in production;Less demand.

2.Easy availability of substitutes to jute:Synthetics and plastic products are easily available as compared to jute products in the world market. The products made of synthetic and plastic are less costly, more attractive and very handy to use. They are very much sustainable as compared to jute materials.

3.Continuous closing up of jute mills: After partition most of the jute growing areas went to Bangladesh and most of the jute mills remain in India, since then Indian jute mills were facing shortage of raw materials. As result of shortage in raw materials Indian jute had faced lots of hazards that disturbed the manufacturing industries in India and because of this many jute mills begun to close. The entry of synthetic and plastic as substitutes to jute disturbed the jute market globally and also resulted in closing up of many jute mills across the country.

4.Production of traditional jute products in highly proportioned amount: Till today after more than 100 years of its inception Indian jute industry still producing more than 85 per cent of traditional jute products. After having huge potential of JDPs in world market Indian manufacturers are not able to grab the market because of huge amount of production of traditional products.

5.Low attractiveness of jute products: As we all know elegance is remembered, and by its look. In order to be irreplaceable one must always be different; as fashion is an instant language in today's world, so to make jute products an irreplaceable material the jute products should owed the fashionable attire of this era for mesmerizing the customers. For example, to target young women presentation of products quality, brand image, fashionable attire of the product is very much important in today's competitive market.

6.Declining interest of growers: The industry is based on production of raw jute. Jute agriculture became less rewarding; farmers are not able to earn what they invest to grow jute. Low rate of raw jute and import of raw jute at lower cost from Bangladesh had seriously affected production of raw jute in India. The farmers are shifted to produce other agricultural products in place of producing raw jute across different places of the country, only because of low price of raw jute.

7.Infrastructural Problems: One of the prominent problems existing in Indian jute industry is lack proper infrastructure. Jute industry in India is one of the oldest industries the building, machineries are getting older with the industry which hampers the working condition of an organisation more significantly. Many jute mills are not yet changed their machineries or repaired the building since its inception.The workers are working in unsafe conditions. Poor infrastructure of Indian jute industries are one of the major factors for declining of Indian jute.

8.Seasonal cultivation: Jute is a rain fed crop and cultivated during the rainy season, i.e., may to august every year. Due to seasonal cultivation of raw jute Indian jute products manufacturers are facing difficulties in availability of raw materials at time, proper quantity and quality of raw materials etc. and because of this many jute mills had bound to close their shutters.

9.Less coordination between jute growers and producers of jute goods: There is huge gap in coordination between the jute farmers and the jute goods manufacturers in our country from the very beginning. It is because of distance between cultivation area and manufacturing area. One of the prime reasons of less coordination between jute farmers and manufacturers is involvement of huge numbers of middlemen (beparies, local agents, etc.) involved in marketing of raw jute etc.

10.Warehousing and Storage of raw jute: Warehousing and storage of raw material is one of the major problems of Indian jute sector. Due to lack of storage facility it leads to uneven supply of raw material. Due to this, Indian jute products manufacturers are not able to compete in world market as well as they are not able to fulfil the domestic demand.

11. Less awareness: Every successful brand often opens their doors without giving sufficient consideration to developing a strong brand image. Strong brand image enjoy a high level of consumer awareness and receive increased attention from consumers. Brands with a weak brand name that lacks this hold on consumer minds cannot grab the market. Jute products are hardly known to everyone because of negligible advertisement in TV, Newspapers and other sources of media which directly connects to people in day to day life. Because of this jute industries is declining year after year.

12 Traditional ways of marketing: In this era where marketing is the most vital factor to increase the organisation client base, Indian jute product manufacturers still applying 189 traditional ways of marketing to place their products in different markets. Though traditional marketing methods have been successful in the past, they all have disadvantages, especially with the rapid increase in Internet usage. With traditional ways of marketing, it is difficult to target a specific customer; specific market segments can be targeted, but not an individual. There is no sign of marketing which includes placing advertisements in newspapers and magazines, T.V. commercials, direct mail and door-to-door sales, which may help more to compete with other products.

17 .Major Challenges in the export trade of Jute

1.Enormous amount of consumption : India is the world largest producer and consumer of jute products. In its early stage Indian jute industry is one of the major export earners for the industry. After partition, Indian jute is begun to lose the export market to Bangladesh as most of the jute growing areas went to the part of Bangladesh. The entry of synthetics and plastic as substitutes to jute in mid 1970s in world market disturbed the whole jute market. The manufacturers and policy makers started to rethink about the survival of the oldest industry which provides employment to many people and livelihood to many household in different parts of the country mainly in West Bengal. To save the industry government introduces JPM Act in 1987. The act describes 100 per cent mandatory use of jute bags to pack the finished products by sugar, foodgrains, cement and other government industries. Since then the consumption of jute goods is much higher in domestic market.

2.Government intervention in marketing and promotion of jute goods : Indian jute industry is one of the oldest and government supported industries in India. Government agencies like NJB, NJMC, DGS&D, are STC the major sources of marketing of jute goods in domestic as well as in export market. Traditional marketing strategies and promotion of jute goods by the government agencies in both export and domestic markets leads to loss of jute market in front of substitutes of jute products.

3.Research and Development Another major weakness of jute industry is poor Research & Development (R&D) initiation, in case of marketing of jute products in different markets, inventions in case of machinery development has been grossly neglected in this sector which leads to higher cost of production, less amount of production, reducing export market etc.

4.Keen competition from jute products made in Bangladesh: Indian jute industry is facing stiff competition from neighbour country Bangladesh which has taken a large portion of global trade of jute goods. After partition major part of raw jute production area has moved out to Bangladesh, that is one of the prime reasons for dilution of Indian jute industry (Karthik and Ramaya, 2012; Goyal, 1990). During the period of 2000-01 to 2012-13 production of raw jute and jute products in Bangladesh have shown significant growth in respect to India's growth. Though, till today Indian jute sector enjoying the position of major producers of raw jute as well producers and consumers of jute goods also, but due to large amount of consumption, Indian jute industry are lacking behind in export market in front of Bangladesh jute industry. To overcome the situation Indian jute board must initiate some policy measures for its survival.

18.Government incentives and policies to promote the production and exports of Jute

Government has decided to take firm initiatives in strengthening the jute sector of India because millions and millions of Indians are directly or indirectly dependent on the jute industry.Government of India makes sure that farmers are not forced to sell their raw jute below the market price or the MSP (minimum support price).Plastic, a cheap and hazardous material was being used in packaging of some commodities. Because of its property of not being biodegradable (and since it was not eco friendly), the government ordered the compulsory use of jute packaging for select commodities. This has given the industry a huge boost and helped it to stabilize, ensuring a better return for the jute farmers.

Government is implementing the following schemes and measures to support the jute manufacturing units and to strengthen the jute sector:

(i) Under the Jute Packaging Materials (Compulsory Use in Packing Commodities) [JPM Act], 1987, Government specifies the commodities and the extent to which they are mandatorily required to be packed in Jute Packaging Materials. At present, a minimum of 90% of food grains and a minimum of 20% of sugar are to be compulsorily packed in jute sacking. On an average, the annual Government support to jute industry on this account amounts to Rs.5500 crores.

(ii) Whenever the market price of raw jute falls below a certain level, the Jute Corporation of India (JCI) procures raw jute at Minimum Support Price (MSP), fixed on the basis of recommendation of the commission for Agricultural Cost and Prices (CACP), from jute growers to safeguard their interest. Government of India has sanctioned Rs. 204 crores for four years starting from 2014-15 to enable JCI to be in readiness for MSP operations.

(iii) Incentive Scheme for Acquisition of Plants and Machinery (ISAPM): Government of India launched ISAPM for Jute Industry and Jute Diversified Products Manufacturing Units, with effect from 1st October 2013. The basic aim of this scheme is to facilitate modernization in existing and new jute mills and up- gradation of technology in existing jute mills and to provide assistance to a large number of entrepreneurs to manufacture value added biodegradable Jute Diversified Products (JDP) as well as for modernization Jute up-gradation of technology.

(iv) Jute-ICARE (Jute: Improved Cultivation and Advanced Retting Exercise): This pilot project launched in 2015 is aimed at addressing the difficulties faced by the jute cultivators by providing them certified seeds at subsidized rates, seed drills to facilitate line sowing, nail-weeders to carry out periodic weeding and by popularizing several newly developed retting technologies under water limiting conditions. This has resulted in increased returns to jute farmers.

(v) The National Jute Board implements various schemes for market development, workers' welfare and promotion of diversification and exports.

(vi) Government has issued a notification on 5th January, 2017 imposing Definitive Anti-Dumping Duty on jute goods originating from Bangladesh and Nepal. Based on the current level of imports, the industry has estimated that this is likely to generate up to 2 lakh MT of additional demand for jute goods to be met by the Indian Jute industry.

(vii) Government has made it mandatory for the entire chain from importers and traders to the level before the end-users, to register with the Office of Jute Commissioner, and furnish monthly reports on the imported goods.

(viii) Government through its Office of Jute Commissioner, Kolkata has also directed all

manufacturers, importers processors and traders to mark/ print/ brand the words “Made in-Country of Origin” on imported bags. Customs have also been requested to maintain a strict vigil so that no unregistered importers/ traders can import jute and no unbranded jute goods can enter India.

The following export promotion initiatives are implemented through the National Jute Board (NJB):- (i) Support is given to Registered exporters facilitating participation in export promotion events.

(ii) Participation in product-specific fairs and participation of jute product exporters is organised.

(iii) Research Studies are conducted to identify new and potential markets.

(iv) Industry led market exploratory missions / delegations are undertaken.

Besides, there are Market Development Assistance (MDA) / Market Access Initiative (MAI)/ Merchandise Exports from India Scheme (MEIS)/ Market Linked Focus Product Scheme (MLFPS)/
Duty Drawback Schemes of Ministry of Commerce which are also being availed by the Jute exporters.

19.Resources and Research Papers

1.International Journal on Current Research

2. Challenges faced by Indian Jute

3.Notes On Jute Sector

4.Annual Jute Report

Websites

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9) https://www.exportgenius.in/blog/jute-products-global-imports-and-exports-jute-bags-fabrics-trade401.php
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