Jute Industry of India

Jute is a natural fiber popularly known as the golden fiber. It is one of the cheapest and the strongest of all natural fibers and considered as fiber of the future. Jute is second only to cotton in world's production of textile fibers. India, Bangladesh, China and Thailand are the leading producers of Jute. It is also produced in southwest Asia and Brazil. The jute fiber is also known as Pat, kosta, Nalita, Bimli or Mesta (kenaf).

Kenaf known as Mesta or Ambari (species Hibiscus Cannabinus) is also considered as a variety of Jute. It is cultivated in Indian subcontinent, Thailand, China and Africa. The two main types of jute, white jute (Corchorus Capsularies)and dark jute or tossa (Corchorus Olitorius) are grown in India, Bangladesh, Thailand, China, south Asian countries and Brazil. India is the largest producer of jute goods in the world, while Bangladesh is the largest cultivator of raw jute. The cultivation of Jute in India is mainly confined to the eastern region states - West Bengal, Bihar, Assam, Tripura, Meghalaya, Orrissa and Uttar Pradesh. Nearly 50 percent of total raw jute production in India alone figures in West Bengal.

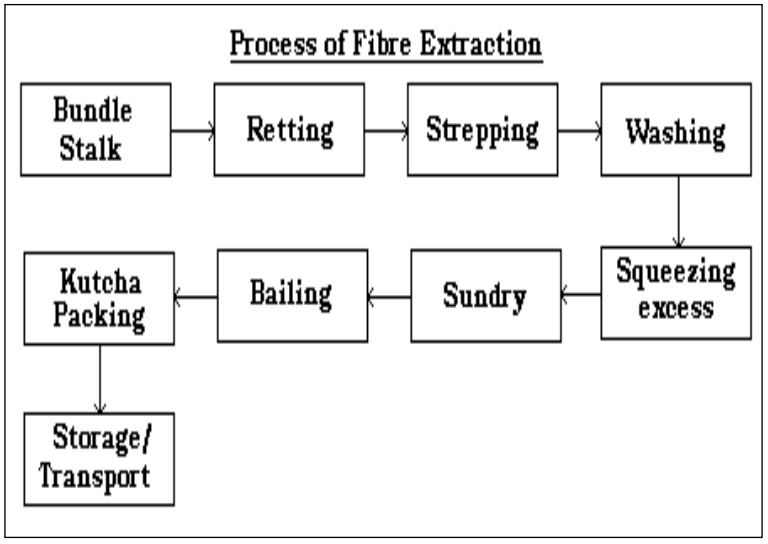
Jute Cultivation

Jute is a rainy season crop, sown from March to May according to rainfall and type of land. It is harvested from June to September depending upon whether the sowings are early or late. Sowing of jute in midlands and high lands starts with showers in March or April and continues till early June in the western part of the jute belt. Compost or firm yard manure, Phosphorus and Potash, Nitrogen fertilizers are used as a fertilizer. Interculturing is essential in the early stage. Pasts are also require for plant protection. Jute is harvested any time between 120 days to 150 days when the flowers have been shed, early harvesting gives good healthy fibers. The plant from 8 to 12 feet high are cut with stickles at or close the ground level. In flooded land, plants are up rooted. The harvested plants are left in field for 3 days for the leaves to shed. The stems are then made up into bundles for steeping in water. Steeping is carried out immediately after harvest.

The Fibre Extraction

The jute plant's fibres lie beneath the bark and surrounded the woody central part of the stem. To extract the fibres from the stem, the process is carried out in the following stages :

Retting: Retting is a process in which the tied bundles of jute stalks are taken to the tank by which fibres get loosened and separated from the woody stalk. The bundles are steeped in water at least 60 cm to 100 cm depth. The retting process is completed in 8 to 30 days, when the barks separate out easily from the stick or wood and the fibres are ready for extraction. A development in recent years is adoption of ribbon retting technology in jute growing trade of the country.



Stripping (Fibre Extraction): Stripping is the process of removing the fibres from the stalk after the completion of retting. Fibres are removed from the stalk by any one of the following methods :

(i) Single plants are taken and their fibers are taken off.
(ii) Taken off a handful of stalks,breaking it in a to and fro motion in water.
(iii) Washing the stalks first by standing in waist deep water and then stripping afterwards.

When there is a plenty of water, bundles of stalks are laid in the pond ditches or slow moving streams and left for 5-15 days under water. The bunch of stem is held in one hand and the root end tapped lightly with a mallet. After loosens the rest of fibres, fibres are extracted and washed.

Washing and Drying: Extracted fibres are washed in clean water. The dark colour of fibres can be removed by dipping them in tamarind water for 15 to 20 minutes and again washed in clean water. After squeezing excess water the fibres are hang on bamboo railing for sun drying for 2-3 days.

Bailing and Packing: The jute fibre is graded into tops, middles, B, C and X-bottoms. Packing into Kutcha bales about 250 pounds for use in the home trade. they are transported to jute market or direct to jute mills.

Grading of Raw Jute

The Bureau of Indian Standards (BIS) in its publication no IS :271-2003 has recommended grading of raw jute based on the fibre characteristics. The characteristics are—strength, freedom from defects, bulk density, colour, fineness and root content. There are sub-features to these characteristics. Based on these features eight (8) grades of each of Tossa and White Jute have been conceived, marked as TD1 – TD8 for Tossa Jute and W1 - W8 in that sequence. Grading is done giving due weights to physical attributes of jute fibres. Maximum stress is given on fibre strength, root content and defects at the time of evaluation of the grading.

Jute fibers after extraction is graded by Kutcha Balers as :

Top - Very strong fibres, good lusture and colour.
Middle - Strong fibre and average colour and lusture.
Bottom - Sound fibre, medium strength.
B-Bottom - Sound fibre, medium strength, not suitable for higher grades.
C-Bottom - Medium strength fibre, any colour.
X-Bottom - Weak ha jute.
(Cross-Bottom)

Raw jute is further classified for trading and for manufacture into jute products on jute mills on the bases of length, strength, fineness, lusture and colour.

White jute is available in the following 8 grades as:

W-1, W-2, W-3, W-4, W-5, W-6, W-7, W-8.

Tossa jute is available in 8 grades as :

TD-1, TD-2, TD-3, TD-4, TD-5, TD-6, TD-7, TD-8

Mesta jute is available in 6 grades - quality wise

M-1, M-2, M-3, M-4, M-5, M-6

Other gradation of raw jute for trading region wise are as follows :

Assam - Assam -1 to Assam - 8

Jungli - Jungli - 1 to Jungli - 8

Bimali - Bimali -1 to Bimali - 8

Jute Products traded in the market

Basic Jute products fabrics produced in jute mills in India are of standard constructions classified as the following :

1) Hessian Cloth
2) Sacking Cloth
3) Jute Yarn and Twines
4) D. W. Tarpaulin
5) Canvas
6) Bags
7) Hydrocarbon Free Jute Cloth
8) Geotextiles

Indian Scenario

The production and cultivation of jute is restricted mainly to the states that lies along the Ganga-Brahmaputra delta in West Bengal and in Assam, Bihar and Orissa. In recent years, jute cultivation has also been extended to the states of Meghalaya, Tripura, Tamil Nadu, Maharashtra and Uttar Pradesh.

Jute industry, in India, is mainly a raw material oriented Industry. Hence, majority of the jute mills are concentrated near jute growing tracts of West Bengal along the banks of the Hugli River. West Bengal alone accounts for 63.55 per cent of the total production of jute goods in the country. Besides West Bengal, Orissa is the second largest producer of jute goods in the country (about 17 per cent). Other important centres of jute industry in-clude Samastipur, Katihar and Darbhanga in Bihar; Kanpur, Gorakhpur (Shahjanwan) in Uttar Pradesh; and Raigarh in Chhattisgarh.

Jute and Mesta crop Production and Area ('000 Bales & Ha)

Year	JUTE		MESTA		TOTAL (JUTE & MESTA)	
	Production	Area	Production	Area	Production	Area
2010-11	106	8	5.37	0.92	111.57	9.19
2011-12	107	9	5.99	0.95	112.89	9.96
2012-13	114	8	5.94	0.88	120.00	9.15
2013-14	114	9	6.07	0.81	120.23	9.47
2014-15 #	98	8	4.84	0.58	103.06	8.84

Till Dec. 2014

Note : These figures are the official Jute and Mesta crop forecasts issued by the Directorate of Economics & Statistics, Government of India

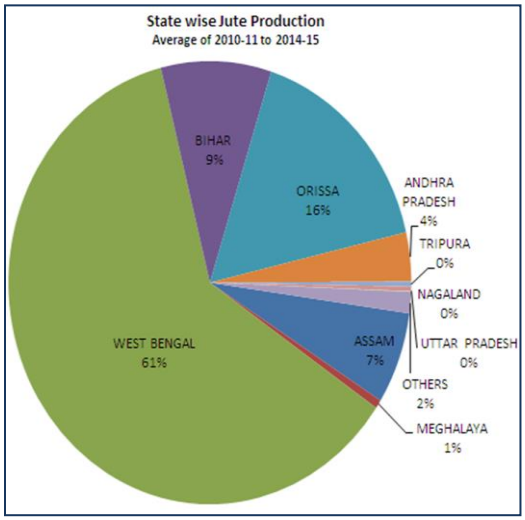
Source : Directorate of Economics & Statistic

With about 40 per cent of the total loom age capacity and 35 per cent of the total production of the world, India is the largest producer of jute goods in the world. Record production of jute goods (16.78 lakh MT) was recorded in 1997- 98 which shows signs of recovery in the industry.

Production of Jute Products

(APRIL / MARCH)	HESSIAN	SACKING	CBC	OTHERS	TOTAL
2001 - 02	275.3	1034.3	5.0	286.2	1600.8
2002 - 03	338.3	1000.0	5.4	278.1	1621.8
2003 - 04	305.2	979.3	4.7	281.1	1571.3
2004 - 05	310.3	992.0	4.0	306.8	1613.1
2005 - 06	320.0	1007.5	6.2	248.5	1582.2
2006 - 07	250.3	874.7	2.9	228.4	1356.3
2007 - 08	350.3	1143.0	6.0	279.7	1776.0
2008 - 09	297.8	1071.4	4.5	260.0	1633.7
2009 - 10	206.5	921.6	2.4	192.6	1323.3
2010 - 11	244.4	1076.9	4.7	239.7	1565.7
2011 - 12	239.9	1165.1	3.6	173.8	1582.4
2012 - 13	210.0	1218.2	2.9	160.2	1591.3
2013 - 14	202.5	1150.4	3.3	171.5	1527.7
2014 - 15 (Till Dec.)	157.5	632.7	2.7	109.4	902.3

Source : Directorate of Economics & Statistic



According to the Ministry of Agriculture, Jute production for 2014-15 is estimated at a record 9.82 Lakh MT. Over 94.54 per cent of the total production for the country was contributed by 4 states. The top Jute producing states of the country are West Bengal (63.55 per cent), Orissa (16.97 per cent), Bihar (9.14 per cent) and Assam (6.93 per cent). The domestic consumption is estimated at 20 Lakh bales.

State wise Jute Area ('000 Ha.)

State	2010-11	2011-12	2012-13	2013-14	2014-15
ASSAM	67	67	70	81	72
MEGHALAYA	8	12	13	0	11
WEST BENGAL	581	608	577	0	577
BIHAR	145	158	139	0	134
ORISSA	19	24	22	578	19
ANDHRA PRADESH	25	0	25	133	6
TRIPURA	1	2	1	22	1
NAGALAND	3	0	5	15	3
UTTAR PRADESH			0	1	1
OTHERS	37	30	20	36	2
TOTAL	827	901	828	867	826

Source : Directorate of Economics & Statistic

State wise Jute Production ('000 Bales)

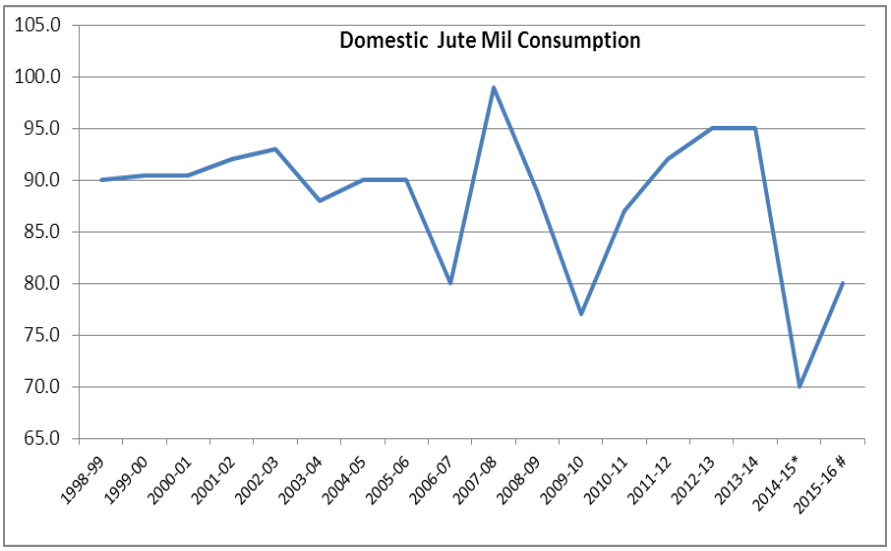
State	2010-11	2011-12	2012-13	2013-14	2014-15
ASSAM	651	795	823	823	650
MEGHALAYA	83	86	86	0	94
WEST BENGAL	8214	8800	8349	0	8928
BIHAR	1310	1930	1690	0	0
ORISSA	114	193	178	8522	150
ANDHRA PRADESH	224	0	225	1540	0
TRIPURA	11	9	11	176	0
NAGALAND	5	0	40	142	0
UTTAR PRADESH			5	10	0
OTHERS	568	96	0	204	0
TOTAL	10620	10691	11407	11416	9822

Source : Directorate of Economics & Statistic

Production of jute since last 8-9 years have stagnated at comparatively higher level due to fall in domestic as well as export demand for this 'Golden Fibre', which can be attributed to cheaper substitution of plastic bags and also importer's resistance terming it as hazardous for sea voyage. It has also reported that trade did not pay due attention and significance in modernizing the technology and thus allow the industry to die slowly. This has a major impact on the growers. Jute prices became highly volatile at times when shortage appears due to drought conditions and prices crumbled when monsoon performed satisfactorily. This situation

necessitated Government Intervention as a stabilizing agency to protect the grower's interest through MSP & procurement mechanism.

Jute mill consumption has increased from 88.00 lakh bales in 2003-04 to 95.00 lakh bales in 2013-14. Since jute is a natural fibre and its use in apparel industry is gaining momentum world over, its consumption is forecasted to gain high leap in the coming years.



* Estimated # Projected
Source: Ministry of Agriculture

Global Scenario

India, Bangladesh, China, Myanmar, Nepal and Thailand are at present the major producers of Jute, Kenaf and Roselle fibres. India, Bangladesh and China are the large producers. Jute is a natural fiber popularly known as the golden fiber. It is one of the cheapest and the strongest of all natural fibers and considered as fiber of the future. Jute is second only to cotton in world's production of textile fibers. India, Bangladesh, China and Thailand are the leading producers of Jute. It is also produced in southwest Asia and Brazil. The two main types of jute, white jute (Corchorus Capsularies)and dark jute or tossa (Corchorus Olitorius) are grown in India, Bangladesh, Thailand, China and south Asian countries.

Global Area of Raw Jute **(in Ha.)**

Country	2009-10	2010-11	2011-12	2012-13	2013-14
Bangladesh	416000	416346	708723	760427	681000
Myanmar	1161	1486	2649	2600	2700
China	16800	13300	13510	12290	11970
India	811200	767630	800000	800000	800000
Nepal	11678	13103	10559	10540	11300
Zimbabwe	4117	4117	4117	4200	4200
Viet Nam	2292	3768.3	3852.7	1331.2	354.2
World	1268744	1225731	1549520	1597677	1517319

Source: FAO Statistics

Bangladesh and West Bengal in India the world's main jute producers, with Myanmar and Nepal producing much smaller quantities. In India and Bangladesh some 4 million farmers earn their living - and support 20 million dependents - from jute cultivation, while hundreds of thousands work in the jute manufacturing sector.

Global Production of Raw Jute **(in MT)**

Country	2009-10	2010-11	2011-12	2012-13	2013-14
Bangladesh	923500	923464	1523315	1452044	1391000
Myanmar	1024	1331	2508	2300	2400
China	43500	40000	43500	39400	35500
India	2021500	1799100	1960380	1912000	1944000
Nepal	17658	20965	14418	14424	15500
Zimbabwe	1700	1995	2298	2500	2500
Viet Nam	6068.05	12447.9	8304.26	3227.88	1202.53
World	3045089	2828533	3583156	3455719	3422665

Source: FAO Statistics

Global Import of Jute (in MT)

Country	2008-09	2009-10	2010-11	2011-12	2012-13
India	52677	63986	54859	157343	168360
China	114217	95726	104256	109879	100690
Pakistan	128796	128628	98452	96493	93906
Nepal	37160	46956	50690	50528	53669
Africa	22436	16691	22633	17609	25088
World	440098	412860	382388	487623	507810

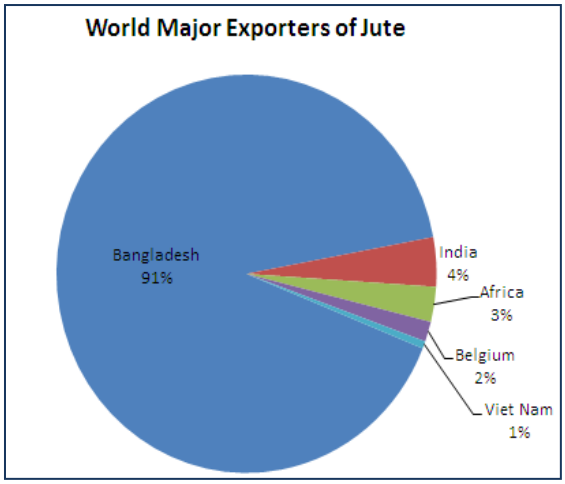
Source: FAO Statistics

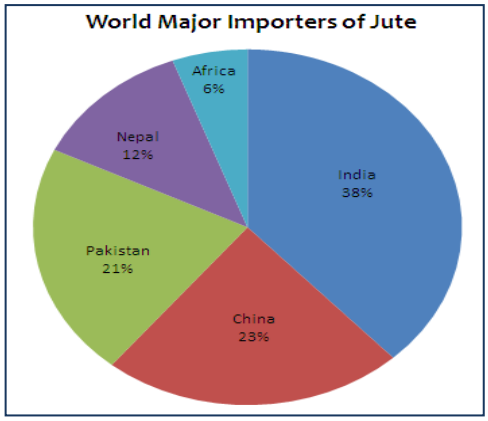
Global Export of Jute (in MT)

Country	2008-09	2009-10	2010-11	2011-12	2012-13
Bangladesh	369372	320159	290973	420441	425000
India	37895	36575	43628	25991	18715
Africa	23849	32321	31721	10477	13311
Belgium	4373	3168	3891	5990	7591
Viet Nam	3709	911	1263	2161	2784
Americas	1760	1223	1681	1791	1963
World	449673	400709	375605	471256	474612

Source: FAO Statistics

India is the largest producer of raw jute and the second largest exporter of jute and jute based goods in the world, next only to Bangladesh.Jute production fluctuates, influenced by weather conditions and prices. Annual output ranges from 3.4 million MT, on a par with wool. India produces 60 per cent of the world's jute, with Bangladesh accounting for most of the rest. Bangladesh exports around half as raw fibre, and half as manufactured items. India exports only 18,715 MT of jute products, the remainder being consumed domestically.



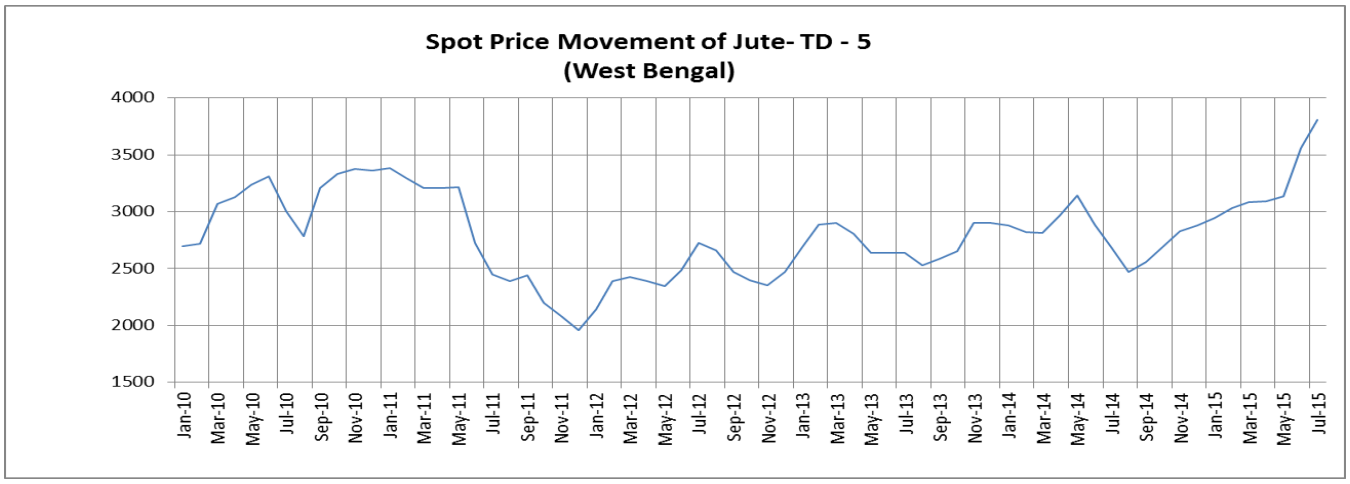


Indian jute manufacturers ship around 18,715 MT of jute goods abroad, valued at Rs 1,800 crore. Bangladesh exports 425000 MT, worth Rs 4,000 crore. In 2013-14, we exported no raw jute; Bangladesh exported both raw jute and jute goods.

Major Developments in Jute Market:

- The government, the biggest buyer, procures eight to nine metric tonnes bags spending Rs 4,500 crore to Rs 5,000 crore annually. To counter the cheaper synthetic bags, the Jute Packaging Materials Act (JPM Act) was enacted in 1987. So, 90 % of food grains and 20% sugar are mandatorily packed in jute sacks.
- Reservation for the jute sector through the packaging order is set to continue in line with a decision taken by the Standing Advisory Committee (SAC) of the Union Textile Ministry. The Act mandates 100 per cent reservation for jute bags for packaging of food grains and sugar by government procurement agencies. The SAC recommended that for the Jute Year 2015-16, jute packaging is reserved for 90 per cent of production of foodgrains and 20 per cent for sugar may be continued. However, it has been mentioned that these provisions may be relaxed in case of any shortage or disruption in supply. [The age-old jute industry is naturally happy with the order. Of the 59 jute mills in West Bengal, (where the industry is concentrated), 14 are now closed, throwing out of employment over 50,000 workmen. It now remains to be seen how many of them open their gates in anticipation of improved workload].
- After cheaper jute products from Bangladesh flooding the domestic market, the Indian Jute Mills Association (IJMA) is set to file an anti-dumping case in the first quarter of the 2015-16 against subsidised exports.
- India accounts for 70 per cent of the world's estimated production of jute goods, with the majority being used for packaging domestically. Although a net exporter, India's exporters have been hit with no exports to Syria and Thailand, a combined market of 70,000 tonnes, over the last two-three years due to political turmoil.
- Bangladeshi jute products are estimated to be 10 per cent cheaper and imports surged by 35 per cent between April and December 2014. Indian mills are working at almost 25 per cent below their production capacity due to stifled demand.
- Sugar meant for export and bulk packaging in excess of 100 kg has also been exempted from this order. The CCEA Okayed a financial support of Rs 55 crore for the Jute Corporation of India (JCI) in order to offset the losses it suffered on account of undertaking minimum support price (MSP) operations.

Price Trend Analysis



In Indian subcontinent, Jute Produsts are produced throughout the year. Since the major consumer for this product is the government agencies, any change in the direction of various state government has severe impact on the price of jute. In current year under the FCI procurement & marketing operations - the Punjab government procures half its requirement of 150,000 bales by the end of December. So far, Haryana has procured 180,000 bales and Madhya Pradesh 200,000 bales of bags. This level of demand was one of the major cause for the sharp in the price seen between September 2014 to July 2015 as The stock of jute goods in mills in West Bengal at the end of November was 113,000 tonnes, against 85,000 MT in November 2013. In 2013-14, production of jute goods was 300,000 MT, against 430,000 MT in the previous year, a fall of 30 per cent. For the current season the price is expected to be stable with bullish undertone.