Chapter - 1

INTRODUCTION

The jute industry has an important and special place in the Indian economy. Jute ranks next to cotton as the most important natural fibre. Jute industry is one of the important industries which have origin of the rise of modern industries in India (Bagchi, 1983; Goyal, 1990; Datt & Sundaram, 2007; Pratihar, 2007; Pandey, 2009; Talukdar, 1987). The manufacture of jute fibres into coarse cloth by hand spinning and weaving is very old. Weavers used to grow the plants themselves domestically and this sack-weaving caste was called 'Kapalis' (Das, 1993).

Jute industry in India encompasses two vital sectors of the economy: agricultural sector and industrial sector. After more than 150 years, the jute industry is now challenged by competition from different substitute's products in global market. The recession in the international market and low awareness among consumers about its versatility and eco - friendly nature, results in decline of jute market globally. Yet this industry still provides a livelihood to more than 250,000 mill workers and more than 4 million farmers' families (Bagchi, 1983; Talukdar, 1987; Bag, 2002; Ministry of Textiles, GoI, 2014; Tepcon International India Ltd.; Datt and Sundaram, 2007). Jute industry in India is generating significant foreign exchange earnings and provides employment to the people of eastern estates of India (Ahmed, 1992).

The industry had its dominance as the single largest item of Indian exports and contributed nearly 20-25 percent to total export earnings during 1950s - 1960s. But in recent years it has fallen down because of stiff competition from Bangladesh jute industry, other substitutes like, plastic, synthetics etc., unfavourable conditions like high cost, production cuts, primitive technology, etc. (Gupta,1985; Ahmed, 1992). Therefore, it is a matter of concern for health and wealth of industry.

Jute is a natural fibre with golden and silky shine and hence called *"The Golden Fibre"*. It is the cheapest vegetable fibre procured from the skin of the plant's stem and the second most important vegetable fibre after cotton, in terms of usage, global consumption, production, and availability. It has high tensile strength, low extensibility, and ensures better breath ability of fibre (Das, 1995; Tepcon International India Ltd.).

Jute fibre is 100% *bio-degradable* and *recyclable* and thus environmentally friendly. It is one of the most versatile natural fibres that have been used in raw materials for packaging, textiles, non-textile, construction, and agricultural sectors. It helps to make best quality industrial yarn, fabric, net, and sacks (Datt and Sundaram, 2007; Tepcon International India Ltd.).

West Bengal is the undisputed king of jute production in India accounting for over four-fifths of the production and nearly three-fourths of the area under jute. The hot and humid climate and alluvial, loamy soil coupled with cheap abundant labour provide the par excellence conditions for the cultivation of jute. The Ganga-Brahmaputra delta grows about 90 per cent of India's jute and provides raw material to the industry (Mondol, n.d).

Major Producers of Raw Jute

India, Bangladesh, China, Myanmar, Nepal and Thailand are the present major producers of jute, kenaf and roselle fibres. India, Bangladesh and China are the large producers (Tepcon International India Ltd.).

Climate

Jute is the crop of hot and humid climate. It requires high temperature varying from 24°C to 35°C and heavy rainfall of 120 to 150 cm with 80 to 90 per cent relative humidity during the period of its growth small amount of pre-monsoon rainfall varying from 25 cm to 55 cm is very useful because it helps in the proper growth of the plant till the arrival of the proper monsoon. Incessant and untimely rainfalls as well as prolonged droughts are detrimental to this crop. Rainfall between 2.5 cm to 7.5 cm in a month during the sowing period is considered to be sufficient. Occasional showers varying from 2 to 3 cm at intervals of a week's time during the growing period are very useful. Large quantity of water is required not only for growing the jute crop but also for processing the fibre after the crop is harvested (Mondol, n.d).

Soil

Soil conductive to producing jute is of three types:

(i) Loamy Soil

(ii) Clayey Soil

(iii) Sandy Soil

Loamy soil usually produces the best fibre. The clayey soil yields a short crop. The sandy soil produces coarse fibre (Tepcon International India Ltd.). Light sandy or clayey loams are considered to be best suited soils for jute. Since jute rapidly exhausts the fertility of soil, it is necessary that the soil is replenished annually by the silt-laden flood water of the rivers. Large supply of cheap labour is also necessary for growing and processing the jute fibre (Mondol, n.d).

Varieties of Raw Jute Produced in India

Jute 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 20^0C to 40^0C and relative humidity of 70%- 80% are favourable for successful cultivation. Jute requires 5-8 cm of rainfall weekly, and more during the sowing time. A number of varieties have been released in India for both the species. These include 13 tossa and 12 white jute varieties.

(I) **White jute** *(Corchorus capsularis)*:

Historical documents *(Ain-e-Akbari by Abul Fazal in 1590)* state that the poor villagers of India used to wear clothes made of jute. Simple handlooms and hand spinning wheels were used by the weavers, who used to spin cotton yarn as well. History also states that Indians, especially *Bengalis* used ropes and twines made of white jute from ancient times for the household and other uses. It is highly functional in carrying grains or other agricultural products.

Types of White Jute: **JRC-321, JRC-212, JRC-7447, JRC-4444, UPC-94, Padma, KTC-1, JRC-698, Bidhan Pat 1, Bidhan Pat 2, Bidhan Pat 3, JRC-80.**

(II) **Tossa jute** *(Corchorus olitorius)*:

Tossa jute fibre is softer, silkier, and stronger than white jute. This variety astonishingly shows good sustainability in the climate of the Ganges Delta. Along with white jute, tossa jute has also been cultivated in the soil of Bengal where it is known as *'Paat'* from the start of the 19^{th} century. Bangladesh is the largest global producer of the tossa jute variety.

Types of Tossa Jute: **JRO-632, JRO-878, JRO-7835, JRO- 524, TJ-40, JRO-3690, KOM-62, JRO-66, JRO-8432, JRO-128, S-19 (Subala), Bidhan Rupali tossa, JRO-204 (Suren).**

It is important to note that JRO-204 is recommended for sowing as early as in the first week of March in the Indian sub-continent (Tepcon International India Ltd.).

Harvesting of Raw Jute

Jute is generally harvested when the plants are at early pod stage. The harvest index remains more or less constant over 60-105 day period following sowing. However, it reaches its peak during 110-120 day period following sowing. The fibre remains weak if it is harvested before flowering. On the other hand, the fibre becomes coarse and lacks lustre if harvesting is delayed beyond 120-day age.

The plants are usually cut close to the ground by hand. A curved, sickle type knife is used to cut the plants. The plants are then sorted out according to height and diameter. The assorted plants are tied into bundles. Each bundle weighs 8-10kg. The bundles are kept standing in the field for 3-4 days for defoliation (Tepcon International India Ltd.).

Features of Jute Fibre

1. Helps in Maintaining Eco balance: trees play an important role in our environment. We can maintain a perfect eco-balance by promoting jute and its products. This will help in increasing the number of trees which in turn will help in solving problems like loss of fertile soil, rain shortfalls, reducing forest cover.

2. Alternate source of wood: jute can be alternate source of wood as it can be used to make paper bags, furniture etc. Dry stem of jute can be a substitute of wood in many ways such as firewood, fencing and raw-material for paper and hardboard. Jute can be harvested within 4 to 6 months as compared to trees which take 10 to 14 years to mature.

3. Environment Friendly Practices: methods used in the production of jute and its by-products are very eco-friendly and it has a very less impact on our environment.

4. Improves the soil: jute helps in improving the condition of soil and also increases its fertility.

5. Biodegradable: the most important feature of jute is that it is bio-degradable and does not pollute the environment. It does not leave any waste behind and keeps the environment clean.

6. Cleaning the environment: according to studies and research, one hectare of jute plant can absorb up to 15 tons of carbon dioxide and in return releases 11tons of oxygen during a season which is about 100 days. This is a boon for the already polluted environment.

7. Contributes decreasing Environmental pollution: jute products help in decreasing environmental pollution as its use decreases the demand for plastic bags which are non-bio degradable and pollute the surroundings. Jute bags are more useful as compared to the plastic bags as they can be used again and again.

8. Fewer requirements of fertilizers & pesticides: jute requires fewer amounts of fertilizers and pesticides as compared to a crop like cotton. This will in turn help the environment being clean as it will put less pressure on soil. The jute crop helps in improving soil condition and fertility as the leftover like leaves and roots work as a manure (National Jute Board).

1.1 JUTE INDUSTRY: EARLY HISTORY

The story of jute is the tale of two cities - Dundee and Calcutta (Kolkata), with their fortunes inextricably interwoven, where the global Scot played a crucial role. The crop grew in the deltaic region of Bengal and at the beginning of its imperial story; the raw material was transported to be processed in the Dundee mills (Fraser, n.d.).

Long before the establishment of the British Empire in India, the raw jute was produced and used by the Indian villagers for making ropes, cordage and coarse fabrics for matting and bedding. This industry was in fact small in size and mainly confined to Bengal, chiefly among the peasantry and the fisher folk (Wallace, 1909). Jute industry is one of the oldest industries in India and which have contributed more precisely as major foreign exchange earner for the country in early stage of 20th century. After the division of Bangladesh a major part of jute cultivated land has gone to their portion, since than Bangladesh is the one of the rivals for the Indian jute industries. Despite this major factor till today India is the largest raw jute producer and largest jute goods manufacturer in world (Goyal, 1990; Tepcon International India Ltd.).

Jute in Ancient Times

The early history of jute shows that jute fibre has been used since ancient times in Africa and Asia to provide cordage and weaving fibre from the stem and food from the leaves. Jute cloth has been manufactured in India in 16th century. In several historical documents (Ain-e-Akbari by Abul Fazal in 1590) during the era of the great Mughal Emperor Akbar (1542 –1605) states that the poor villagers of India used to wear clothes made of jute. Simple handlooms and hand spinning wheels were used by the weavers, who used to spin cotton yarns as well. History also states that Indians, especially Bengalis, used ropes and twines made of white jute from ancient times for household and other uses (Goyal, 1990).

Chinese papermakers from very ancient times had selected almost all the kinds of plants as hemp, silk, jute, cotton etc. for papermaking. Qiu Shiyu, researcher of the Harbin Academy of Sciences and expert of Jin history, concluded that Jews used to take part in the work of designing "jiaozi," made of coarse jute paper. A small, piece of jute paper with Chinese characters written on it has been discovered in Dunhuang in Gansu Province, in northwest China. It is believed it was produced during the Western Han Dynasty (206 BC--220 AD) (Tepcon International India Ltd.).

Growth of Jute Industry between 17th and 18th Century

The British East India Company was the British Empire Authority delegated in India from the 17th century to the middle of 20th century. The company was the first Jute trader. The company traded mainly in raw jute during the 19th century. During the start of the 20th century, the company started trading raw jute with Dundee’s Jute Industry. This company had monopolistic access to this trade during that time. Margaret Donnelly was a jute mill landowner in Dundee in the 1800s. She set up the first jute mills in India. The Entrepreneurs of the Dundee Jute Industry in Scotland were called The Jute Barons (Tepcon International India Ltd.).

In 1793, the East India Company exported the first consignment of jute. This first shipment, 100 tons, was followed by additional shipments at irregular intervals. Eventually, a consignment found its way to Dundee, Scotland where the flax spinners were anxious to learn whether jute could be processed mechanically (Tepcon International India Ltd.).

In 1830's, the Dundee spinners learned how to spin jute yarn by modifying their power-driven flax machinery. The rise of the jute industry in Dundee saw a corresponding increase in the production and export of raw jute from the Indian sub-continent which was the sole supplier of this primary commodity (Tepcon International India Ltd.).

Image 1: Dundee Jute Mill in Scotland

Source: Tepcon India International Ltd., www.worldjute.com.

The Entrepreneurs of the Dundee Jute Industry in Scotland were called The Jute Barons.

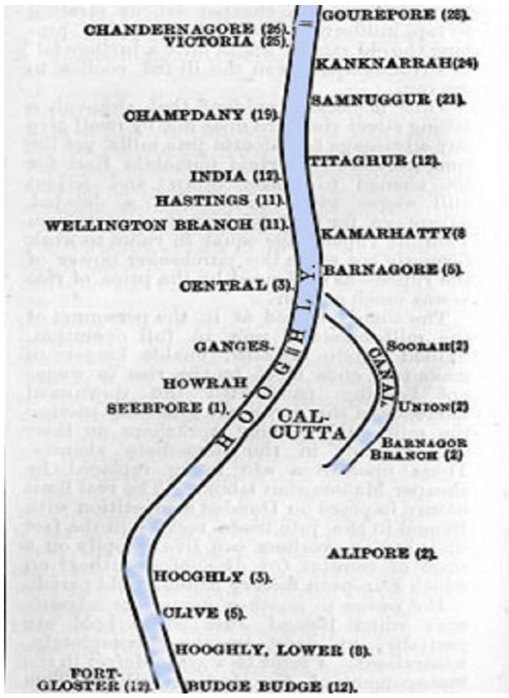
Jute Industry in 19th Century

Calcutta (now Kolkata) had the raw material close by as the jute growing areas were mainly in Bengal. There was an abundant supply of labour, ample coal for power, and the city was ideally situated for shipping to world markets. The first jute mill was established at Rishra, on the River Hooghly near Calcutta in 1855 when Mr. George Auckland brought jute spinning machinery from Dundee. Four years later, the first power driven weaving factory was set up. By 1869, five mills were operating with 950 looms. Growth was rapid and, by 1910, 38 companies operating 30,685 looms exported more than a billion yards of cloth and over 450 million bags. Until the middle 1880's, the jute industry was confined almost entirely to Dundee and Calcutta. France, America, and later Germany, Belgium, Italy, Austria, and Russia, among others, turned to jute manufacturing in the latter part of the 19th century (Tepcon International India Ltd.).

In the following three decades, the jute industry in India enjoyed even more remarkable expansion, rising to commanding leadership by 1939 with a total of 68,377 looms, concentrated mainly on the River Hooghly near Calcutta. These mills alone have proved able to supply the world demand (Tepcon International India Ltd).

The earliest goods woven of jute in Dundee were coarse bagging materials. With longer experience, however, finer fabrics called burlap, or hessian as it is known in India, were produced. This superior cloth met a ready sale and, eventually, the Indian Jute Mills began to turn out these fabrics. The natural advantage these mills enjoyed soon gave Calcutta world leadership in burlap and bagging materials and the mills in Dundee and other countries turned to specialties, a great variety of which were developed (Tepcon International India Ltd.).

Map 1: Jute Mills concentrated on both sides of Hooghly River



Source: Tepcon India International Ltd., www.world.jute.com.

Jute Industry after Partition in 1947

After the fall of British Empire in India during 1947, most of the Jute Barons started to evacuate India, leaving behind the industrial setup of the Jute Industry. Most of the jute mills in India were taken over by the Marwari businessmen (Goyal, 1990).

After partition in 1947 East-Pakistan (Bangladesh) lacked a Jute Industry but had the finest jute fibre stock. As the tension started to rise between Pakistan and India, the Pakistani felt the need to setup their own Jute Industry. Several groups of Pakistani families (mainly from West Pakistan) came into the jute business by setting up several jute mills in Narayanganj of then East Pakistan, the most significant ones are: Bawanis, Adamjees, Ispahanis and Dauds. After the liberation of Bangladesh from Pakistan in 1971, most of the Pakistani owned Jute Mills were taken over by the government of Bangladesh. Later, to control these Jute mils in Bangladesh, the government built up Bangladesh Jute Mills Corporation (BJMC) (Tepcon International India Ltd.).

Table 1.1.1: Growth of Indian Jute Industry during 1950-51 to 2012-13

Quantity in '000 M. Tonnes

Year	Production	Export
1950-51	837.00	727.60
1960-61	1071.00	776.50
1970-71	1060.00	669.60
1980-81	1392.00	439.90
1990-91	1430.00	219.00
2000-01	1624.90	187.00
2010-11	1565.70	175.50
2011-12	1582.40	211.80
2012-13	1591.30	185.40

Source: Indian Jute Mill Association, Kolkata, India, Various Issues.

It may be clearly seen that from the above table that there are great variations in the production of jute goods. It increased from 837.00 Th. M. tonnes in 1950-51 to 1430.00 Th. M. tonnes in 1990-91, thereby recording a growth of 70.85 per cent in a span of forty years. The production declined in mid nineties. However, production of jute goods has rose to some extent till 2000-01, after than a sharp decline had noticed in the production of jute goods in India. Moreover, export of jute goods has continuously declined since 1950's, export accounted for 727.60 Th. M. Tonnes in 1950-51 and it has came down to 185.40 Th. M. Tonnes in 2012-13.

1.2 PRESENT POSITION OF INDIAN JUTE INDUSTRY: 2000-01 TO 2012-13

Indian jute industry is one of the biggest jute goods manufacturing industry in the world not only in terms of quantity but also produces different range of products and provides employment to skilled and unskilled workers. The present scenario of Indian jute industry during the study period, i.e., 2000-01 to 2012-13 is shown in Table 1(i):

Table 1.2.1: Present scenario of Indian Jute Industry: 2000-01 to 2012-13

<table>
<tr><td>Number of Composite Jute Mills</td><td colspan="2">89</td></tr>
<tr><td rowspan="8">State-wise distribution of Composite Jute Mills</td><td>West Bengal</td><td>66</td></tr>
<tr><td>Andhra Pradesh</td><td>9</td></tr>
<tr><td>Bihar</td><td>3</td></tr>
<tr><td>Uttar Pradesh</td><td>3</td></tr>
<tr><td>Assam</td><td>2</td></tr>
<tr><td>Orissa</td><td>3</td></tr>
<tr><td>Chhattisgarh</td><td>2</td></tr>
<tr><td>Tripura</td><td>1</td></tr>
<tr><td>Number of Workers employed in Composite Jute Mills (as on April 2014)</td><td colspan="2">1,33,034 approx(permanent workers)
81,523 approx (other Workers)</td></tr>
<tr><td>Average land area under raw jute and mesta cultivation (average of last 13 years)</td><td colspan="2">823048.462 Hectares</td></tr>
<tr><td>Average production of raw jute and mesta (average of last 13 years)</td><td colspan="2">1698800.00 M.Tonnes</td></tr>
<tr><td>Average production jute goods (average of last 13 years)</td><td colspan="2">1572.52 (000' M. Tonnes Per Annum)</td></tr>
<tr><td>Average export of jute goods (average of last 13 years)</td><td colspan="2">206.95 (000' M.Tonnes per annum)
Rs. 887.10 Crores per annum</td></tr>
<tr><td>Average Domestic demand of jute goods (average of last 13 years)</td><td colspan="2">1380.68 (000' M.Tonnes per annum)</td></tr>
<tr><td>Government of India –owned jute mills under control and management of National Jute Manufacturers Corporation Ltd.</td><td colspan="2">Alexender, Khardah, Kinnison, National, RBHM and Union.</td></tr>
<tr><td>State Government owned jute mills</td><td colspan="2">1 mill (Tripura) is under State Government</td></tr>
<tr><td>Mills under co-operative society</td><td colspan="2">2 mills (Assam Co-op. & New Central) are in the co-operative sector</td></tr>
</table>

Source: Indian Jute- A Bulletin of National Jute Board, GOI, Various Issues.

1.3 GROWTH OF INDIAN JUTE INDUSTRY: 2000-01 TO 2012-13

The growth of Indian jute industry during the study period, i.e., 2000-01 to 2012-13 is shown in the table 1.3.1:

Table 1.3.1: Indian Raw Jute Production during 2000-01 to 2012-13

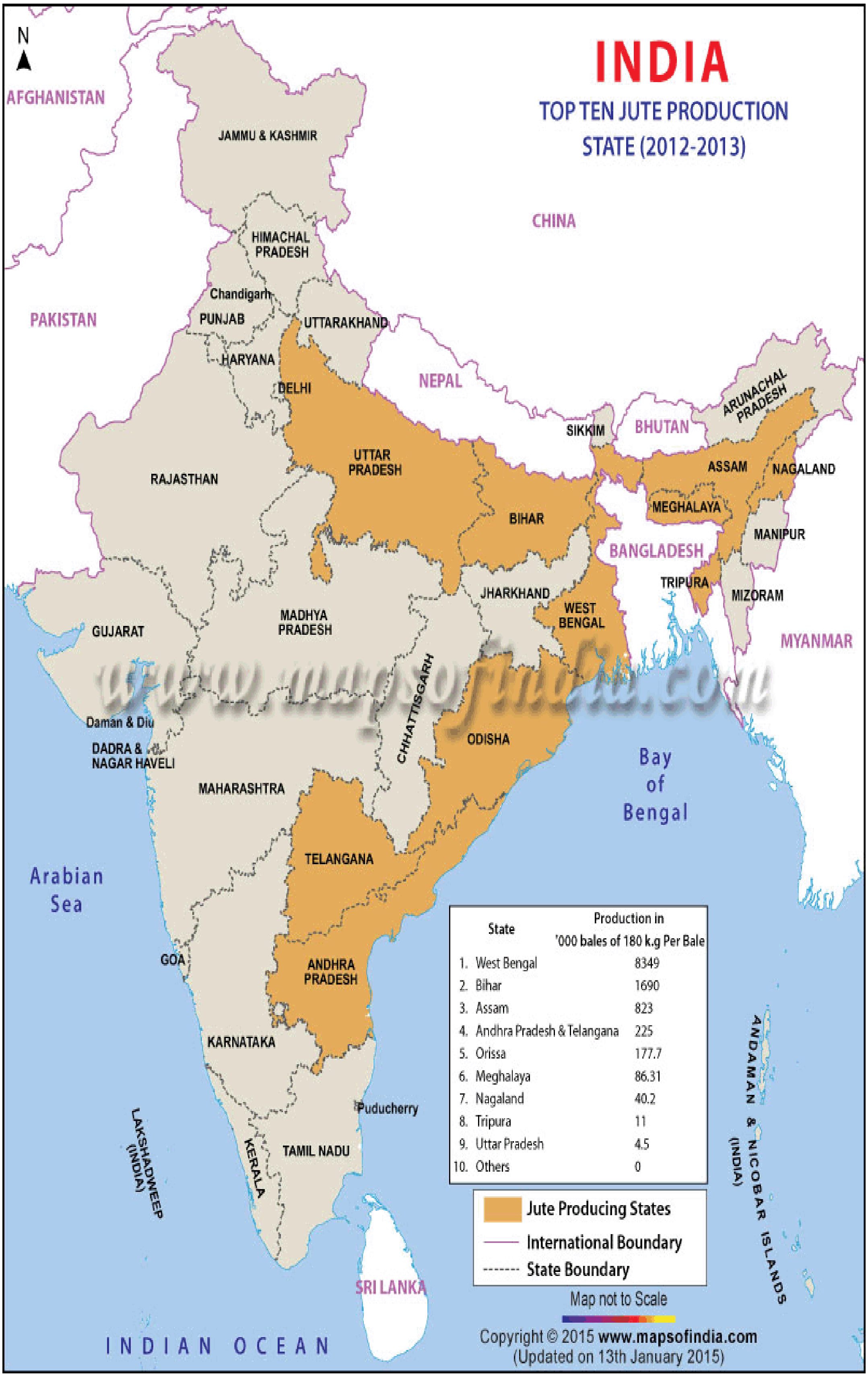
Year	Area under Jute Cultivation (Hectares)	Production ('000 M. Tonnes)	Yield (M.Tonnes/Hectare)
2000-2001	827900	1677.06	2.03
2001-2002	873100	1905.10	2.18
2002-2003	864500	1853.84	2.14
2003-2004	849000	1845.00	2.17
2004-2005	773900	1692.00	2.19
2005-2006	759800	1795.00	2.36
2006-2007	791000	1857.00	2.35
2007-2008	816000	1840.00	2.25
2008-2009	785600	1425.00	2.21
2009-2010	811200	1608.50	2.49
2010-2011	767630	1349.10	2.34
2011-2012	980000	1324.80	2.00
2012-2013	800000	1912.00	2.39

Source: Indian Jute Mill Association, Kolkata, India, Various Issues.
International Jute Study Group, Dhaka, Bangladesh, Various Issues.

As it is evident from the above table, area under jute cultivation in India has shown major ups and downs during the period. The volume of production has also been suffered decline after 2001-02; in 2002-03, production suffered a decline by 51.26 Th. M. tonnes compared to the previous year.

Although there was a trend towards recovery in 2006-07, even in 2007-08 the production has suffered again by 17.00 Th. M. Tonnes. After a great fall in 2011-12; production has shown significant rise by 587.20 Th. M. Tonnes in the year 2012-13. The yield per hectare was found significant (with occasional aberrations) at least till 2010-11. The yield in the financial year 2011-12 has found considerably lower than the erstwhile 2000-01 level.

Map 2: View of Jute Production States in India



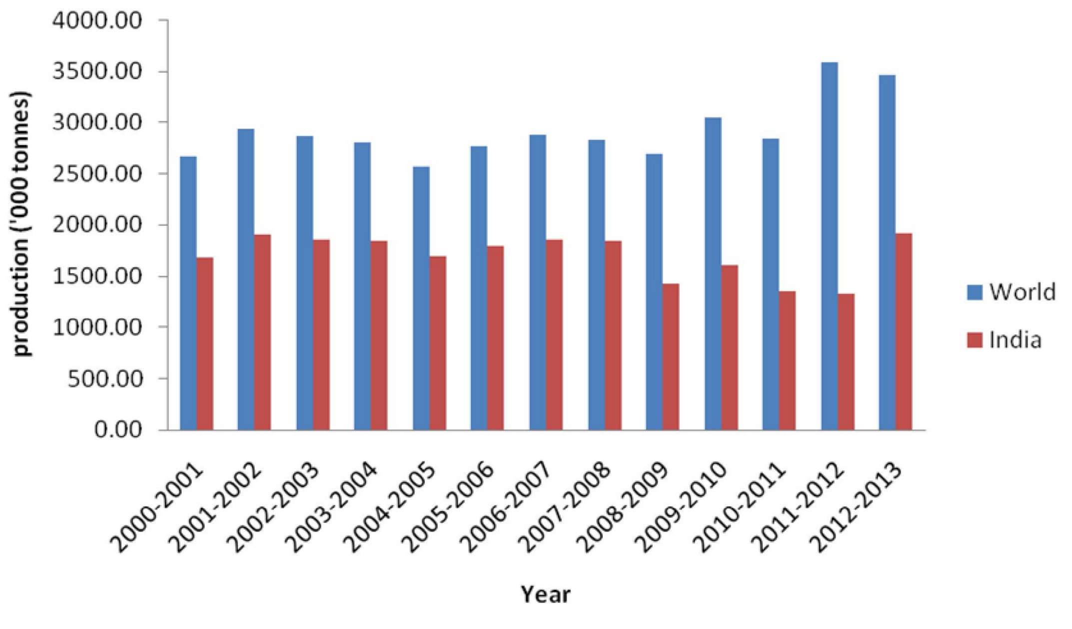
Source: Business Maps, www.mapsofindia.com.

Table 1.3.2: India’s Share on Total Raw Jute Production to World during 2000-01 to 2012-13

Year	World	India	India's Share (%)
2000-2001	2664.36	1677.06	62.94
2001-2002	2933.63	1905.10	64.94
2002-2003	2863.04	1853.84	64.75
2003-2004	2798.57	1845.00	65.93
2004-2005	2562.78	1692.00	66.02
2005-2006	2766.60	1795.00	64.88
2006-2007	2870.46	1857.00	64.69
2007-2008	2823.67	1840.00	65.16
2008-2009	2691.32	1425.00	52.95
2009-2010	3045.09	1608.50	52.82
2010-2011	2828.53	1349.10	47.70
2011-2012	3583.24	1324.80	36.97
2012-2013	3461.96	1912.00	55.23

Source: Indian Jute Mill Association, Kolkata, India, Various Issues.
International Jute Study Group, Dhaka, Bangladesh, Various Issues.

Figure1.3.2(i): India’s Proportion on Raw Jute Production to World



Source: Indian Jute Mill Association, Kolkata, India, Various Issues.

International Jute Study Group, Dhaka, Bangladesh, Various Issues.

Table 1.3.2 clearly points out the fact that raw jute production has come down in India during the study period 2000-01 to 2012-13. Though raw jute production around the world has witnessed little growth during the study period, the Indian jute industry failed to encash this opportunity offered by favourable market conditions. As may be seen from the table, whereas in 2000-01 India accounted for 62.94 per cent World's total raw jute production and it's declined to 55.23 per cent in 2012-13.

Table 1.3.3: India's share in Major Producers of Jute Goods during 2000-01 to 2012-13

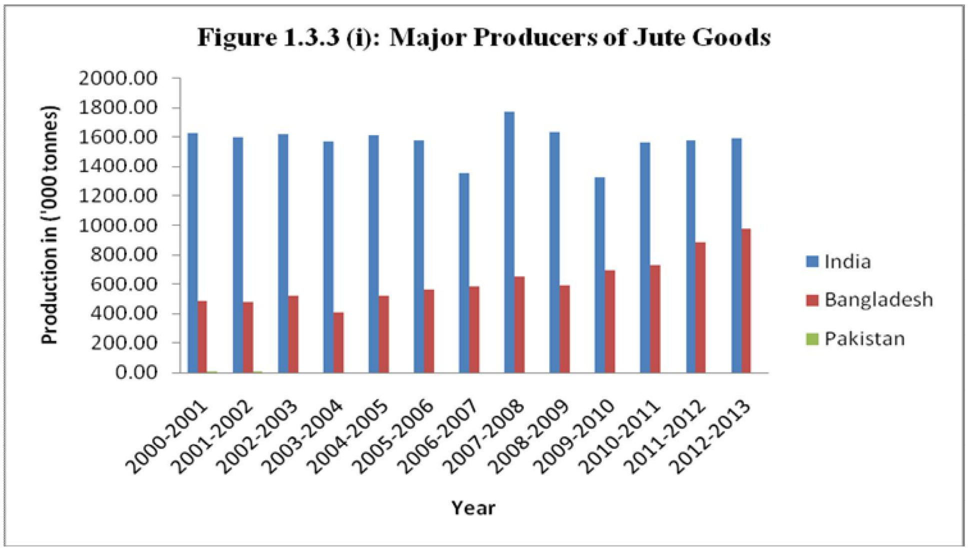
Qty. in '000 M.Tonnes

Year	India	Bangladesh	Pakistan	Total	India's share (%)
2000-2001	1624.90	483.40	10.99	2119.29	76.67
2001-2002	1600.80	479.00	8.04	2087.84	76.67
2002-2003	1621.80	515.90	3.77	2141.47	75.73
2003-2004	1571.30	404.70	4.29	1980.29	79.35
2004-2005	1613.10	521.77	3.93	2138.80	75.42
2005-2006	1582.20	563.46	3.37	2149.03	73.62
2006-2007	1356.30	583.61	3.15	1943.06	69.80
2007-2008	1776.00	651.05	2.26	2429.31	73.11
2008-2009	1633.70	588.85	3.27	2225.82	73.40
2009-2010	1323.30	695.17	2.88	2021.35	65.47
2010-2011	1565.70	729.07	2.58	2297.35	68.15
2011-2012	1582.40	885.26	0.00	2467.66	64.13
2012-2013	1591.30	977.32	0.00	2568.62	61.95

Source: Indian Jute Mill Association, Kolkata, India, Various Issues.
International Jute Study Group, Dhaka, Bangladesh.

In fact, table 1.3.3 points out clearly to the fact that production of jute goods has witnessed declining trend during the study period 2000-01 to 2012-13. It as may be seen from the table, whereas in 2000-01 India accounted for 76.67 per cent of the total jute goods production in major producers of jute goods around the world, the country's share rose satisfactorily to 79.35 per cent of the major producers of World's total jute goods production by 2003-04. India's share of total jute goods production to major producers of jute goods has declined after 2003-04 continuously and accounted for 61.95 percent in 2012-13.

Following is the diagrammatic presentation of the above for lucid understanding.



Source: Indian Jute Mill Association, Kolkata, India, Various Issues.
International Jute Study Group, Dhaka, Bangladesh, Various Issues.

The following table shows India's total Jute Production, Consumption and Exports of jute products during the period 2000-01 to 2012-13

Table 1.3.4: India's total Jute Production, Consumption and Exports of jute products: 2000-01 to 2012-13

Year	Production (in 000' M. Tonnes)	Consumption (in 000' M. Tonnes)	Exports (in 000' M. Tonnes)
2000-2001	1624.90	1435.10	187.00
2001-2002	1600.80	1460.80	148.20
2002-2003	1621.80	1374.80	226.00
2003-2004	1571.30	1343.00	310.40
2004-2005	1613.10	1393.80	321.80
2005-2006	1582.20	1377.20	285.80
2006-2007	1356.30	1216.50	242.80
2007-2008	1776.00	1543.20	149.50
2008-2009	1633.70	1465.70	162.30
2009-2010	1323.30	1206.30	83.80
2010-2011	1565.70	1351.20	175.50
2011-2012	1582.40	1382.60	211.80
2012-2013	1591.30	1398.70	185.40

Source: Indian Jute Mill Association, Kolkata, India, Various Issues.
International Jute Study Group, Dhaka, Bangladesh.

It is evident from the above table 1.3.4, clearly points out to the fact that the production of jute goods in India found fluctuating during the study period. As may be seen from the table, whereas in 2000-01 India accounted for 1624.90 Th. M. tonnes of jute goods production after than it has been declining year after year. Though in 2007-08 production of jute goods rose satisfactorily and accounted for 1776.00 Th. M. tonnes and finally accounted for 1591.30 Th. M. tonnes in 2012-13 during the study period.

In export market as may be seen from the table 1.3.4, India's export has continuously sliding downwards over the time, there are aggressive competitors mainly Bangladesh and China who is producing cheaper synthetic products could wrest successfully sizable shares of the market. In the domestic market, the problem was different dimensions. The upsurge in domestic consumption of jute goods in India created grounds for the rapid rise in the prices of jute goods. The over-reliance on the primitive marketing procedures and the observed apathy of the jute goods producers towards the application of innovative marketing practices and distribution channels frequently jeopardize the financial health of the jute mills and had adverse impact on the growth of production.

1.4 STATEMENT OF THE PROBLEM

Jute business in India is arguably the oldest corporatized commercial activity. Most of the today's jute companies have their origins in the previous century. After India's independence in 1947, not only there were changes in ownership, but also a distinct decline in profitability and investors interest in jute (Goyal, 1990). However, recent policy changes emphasizing domestic consumption of jute goods and rising demand in global market for jute made products because of its green environmental nature have combined to make for renewed investors' interest in this, most important segment of the India's corporate sector. Indian Jute industry in its early stage is one of the major foreign exchange earners for the country. While the growth of the industry in past few decades in terms of production and exports have not been satisfactory. The three facts cannot escape our attention:

- the growth of production of jute goods when considered on a year to year basis was marked by violent ups and downs;
- export of jute products has continuously declined; and
- primitive ways of marketing practices followed by the Indian jute industry in domestic as well as in overseas market in case of promotion.

A part from the advantage of having huge potential by its side Indian jute industry continuously declining in terms of production and export of jute goods which clearly indicating the deteriorating interest of the manufacturers across the country. Nevertheless, it would be very difficult to deny the fact that the disappointing state of affairs with regard to Indian jute industry by the manufacturers of jute goods and by the government.

The observed failure, as indicated above, of the Indian jute industry to encash the opportunities both in domestic as well as in export market and hence to actualise its growth potential gives rise to number of important research questions:

- How Indian jute industry has actually performed in the marketing front in recent years?
- What are the current marketing practices followed by Indian jute industry? Particularly, how the industry has been handling the 'marketing mix' in the domestic as well as in the export market?
- What are the different challenges and problems faced by the Indian jute producers/marketers in domestic and in export market during the study period?

The study is a modest attempt to seek answers to the aforesaid questions.

1.5 OBJECTIVES OF THE STUDY

The objectives of the present study are as follows:

- To examine the trend and pattern of jute market in India and to examine the actual performance of the Indian jute industry in the marketing front.
- To analyze the pace and patterns of traditional jute products in the marketing mix of the industry in domestic as well as export market.
- To assess the performance of diversified jute products in the marketing mix of the industry in domestic as well as export market.
- To identify the major marketing problems faced by the jute product manufacturers in India and to assess how far these problems have hindered the growth of the jute industry in India.

1.6 HYPOTHESES

The prime objective of the study, as mentioned earlier, is to assess the marketing practices and performance of the Indian Jute Industry during the period 2000-01 to 2012-13. The rationale of the study is to know the marketing pattern and performance of Indian Jute Industry during 21st century particularly during the period 2000-01 to 2012-13. Considering this, the study period has been conducted the period of 13 years. A comparison of the marketing performance and marketing practices of the Indian Jute Industry during this period is undertaken from the point of view of "traditional jute products" and "jute diversified products" in order to assess the said practices and performance.

The underlying premise or hypothesis throughout the study has been that *the immense competition in 21st century shifts in favour of openness, deregulation, decision-making-freedom and innovation would lead to significant changes in the marketing practices followed by an industry particularly in handling its given marketing mix.*

To be more specific, the study has been guided by the following ***four*** tentative and **a priori** hypotheses:

(i) There has been a significant market opening during the period 2000-01 to 2012-13 for Indian Jute Industry.

(ii) Increased competition in the domestic market from imported jute products as well as other substitutes has forced the Indian Jute Industry to be increasingly export-market oriented in case of "traditional jute products".

(iii) There is a significant increase in the share of "jute diversified products" during the period 2000-01 to 2012-13.

(iv) Appropriate coping strategy has been adopted by the Indian Jute Industry in terms of product-diversification, promotional campaign and placing strategy.

To put it otherwise, the above are the ***four*** questions which have been extensively investigated in course of the present study.

1.7 BRIEF METHODOLOGY

The nature of the present study is descriptive which is mainly based on secondary data. In order to attain the objectives of the study, relevant secondary data for a period of 13 years, i.e., from 2000-01 to 2012-13 have been considered.

In order to collect secondary data, annual reports of National Jute Board, Indian Jute Mills Association and Ministry of Textiles, GOI have been considered. Moreover, the data published by the Directorate of Jute Development, Office of Jute Commissioner (Handloom)and Office of the Development Commission (Ministry of Textiles) have also been taken into consideration. Information about the world jute economy has been collected from annual reports published by Food and Agricultural Organization (FAO) and International Jute Study Group (IJSG). In order to supplement the information procured from aforesaid sources, the researcher has personally visited to the offices of the National Jute Board (NJB), Kolkata and Indian Jute Mill Association (IJMA), Kolkata.

Besides, to know the various facts regarding marketing practices and to get the appropriate intricacies about the handling of the components of marketing mix by the jute industry involved in marketing activities the researcher has had discussions with the officials of National Jute Board (NJB) of India and Indian Jute Mill Association (IJMA). To identify more about the marketing practices followed by the Indian jute industry researcher has visited corporate offices of 15 jute firms. The data and information processed with the help of MS-OFFICE EXCEL, 2007 Version. The relevant data have been analyzed with the help of descriptive statistics like Arithmetic Mean, Standard Deviation (SD), Maximum, and Minimum. Further, Compound Annual Growth Rate (CAGR), Annual Growth Rate (AGR) and for trend analysis, linear least squares method have been used. Furthermore, line charts and bar diagrams have been used for lucid presentation of the study.

(The detailed methodology and data source of the study is described in Chapter-III.)

1.8 SCOPE AND LIMITATION OF THE STUDY

The study focuses on the adoption of marketing practices by the Indian jute industry. To make the study more precise and practical, investigation and analysis were limited within a defined boundary. The following information limits the scope of the present study:

a) Of the different jute goods producing countries in the world, Indian jute industries have been taken for the study. This is because, Indian jute industry is the world largest jute goods producer, and has the largest consumer market for the same.

b) To examine the marketing practices of the industry, only 4Ps (Product, Price, Place, and Promotion) of marketing has been taken into consideration for study. Other peripheral factors are not considered for the study.

c) Marketing has two aspects: i.e., domestic marketing or marketing within India and export marketing or marketing abroad. The strategies as well as the practices widely differ among domestic marketing and export marketing. While examining the marketing practices, we have covered both the aspects of marketing, i.e., domestic as well as export marketing.

d) In this study researcher has examined the marketing practices followed by the Indian jute industry in domestic as well as in overseas market analyzing the components of marketing mix [i.e., 4Ps, viz., Product, Price, Promotion and Place (Distribution)].

e) The researcher has taken only that quantity in case of distribution of jute goods which is measured **in weight** (i.e., in Kg, Bales, Tonnes, Metric Tonnes etc.) only. During the study period jute products measured **in length** (i.e., in meters, square meters, etc.) and **in pieces** are excluded from the study. Moreover, quantity of jute products measured in length/pieces did not cover the complete study period.

f) The study covers the period from 2000-01 to 2012-13 to highlight the performance of Indian jute industry in recent past of 21st century. The study enables us to understand the marketing practices followed by the Indian jute industry in recent years so as to market their products in both domestic and international market more lucidly in the near future.

The limitations of the study are as follows:

a) Marketing of raw jute is not included in the study, though some information have been furnished to highlight the nature of the industry and to give a balanced and complete picture of the context.

b) The present study limits the number of jute business firms to 10 (Ten) across India so as to know the various facts regarding marketing practices and to get the appropriate intricacies about the handling of the components of marketing mix by the jute industry.

1.9 CHAPTER SCHEME

Chapter 1 of the study presents the introductory framework and general information followed by the historical background of Indian jute industry, statement of the problem, objectives of the study, hypotheses, brief methodology, scope and limitation of the study and chapter scheme.

Chapter 2 of the study presents the extensive review of literature and research works on marketing issues associated with the jute industry in India as well as in other foreign countries to establish the present study establishing the research gap.

Chapter 3 presents the conceptual framework and data sources and methodology of the study.

Chapter 4 of the study represents the overview of the growth of Indian jute market and highlights the trend and pattern of Indian jute industry.

Chapter 5 of the study highlights the marketing practices followed by the jute goods manufacturers in India to place the traditional jute products in domestic as well as in export market.

Chapter 6 of the study highlights the marketing practices followed by the jute goods manufacturers in India to place the diversified jute products in domestic as well as in export market.

Chapter 7 of the study contains with major marketing problems/challenges faced by Indian jute goods manufacturers and assesses the implication of these problems of the industry’s growth.

Chapter 8 of the study presents the summary of findings, suggestions and conclusion.