CHAPTER II

Cottage Jute In Bengal The Genesis: A Cottage Organisation Of Production

Jute manufacturing was a cottage industry of Bengal functioning from the days of antiquity. It contributed to the growth of modern jute mills by way of ensuring a steady source of raw materials as well as a ready market at the global scale. This chapter seeks to deliberate on various aspects of this tradition industry. There are four sections in what follows.

Section I discusses about the types of jute plant with a brief introduction about the antiquity of the plant. Section II delves into various aspects of jute cultivation in Bengal and its preliminary processing. District-wise analysis is made in this section to get an idea about the availability of raw jute at the regional level. It also discusses the marketing organisation in section III. However, we seek to throw light on the status of the cottage industry in the nineteenth century Bengal. In particular, this section discusses about the dispersal of the industry across various districts, and also its sale of output in overseas market. Section IV, however, concludes.

I

Jute is familiar to the human race from the early days of civilisation. A mid-eighteenth century reference[1] quotes Pliny (79 A.D) recognising a kind of pot herbs used by the Egyptians to be the *melochia (or melokyeh),*

[1] Watt, The dictionary of the economic products, p.436

the native vocabulary of the edible part of jute in Arab. A fifteenth century evidence records about the hawking of this vegetable along the streets of Babylon, the ancient seat of medieval civilisation[2]. The travelogue of Rouwolf (1583)[3] tells us that the crop was regularly cultivated along the Euphrates for the consumption of the Jews at Aleppo. Five years later, Camerarius[4] reported it for the first time in the scientific literature as a specie from Africa, generating curiosity among the botanical fraternity, and also an urge for further quest about it.

The history of jute, however, dates back to farther antiquity in the Indian context. About 300 BCE Koutilya's Arthasastra[5] mentioned the uses of certain fibres for storage, which some later authorities claimed to have included jute. In particular, Kautiliya noted, "He [the superintendent of yarns] should get yarn spun out of wool, bark-fibres, cotton, silk-cotton, hemp and flax, through widows, crippled women, maidens [etc.]"[6], and a number of authors believe that the word hemp included, *inter alia,* jute. Indeed, Milburn pointed out that there were three varieties of hemp, viz. *sann, ghore-sann* and *Paut* [the local nomenclature of jute in Bengal][7], and that '[the *paut*] does not grow to the height of 4 feet ...[and] is not a profitable article to the landholder.' Watt confirmed, "The plant in question (the paut) was in all probability *c.*

[2] ibid
[3] ibid
[4] Camerarius, Hortus Medicus et Philosophicus, 1588, 47, f.12
[5] Kangle, The Kautiliya Arthasastra, p. 125.
[6] Ibid, p.147.
[7] Milburn, Oriental Commerce (1813), i., 283; ii., 209-11 as referred in Watt, p. 409

alitorius."[8] Abul Fazl's Ain-i-Akbery[9] also revealed that during the Mughal period of the emperor Akbar (1556-1605), the poorer section of the society dressed up themselves with sack cloths that were locally called *'tat'* in the Eastern and Northern segments of Bengal. Though there is no clarity in the document about the nature of those sack cloths, Jarrate[10] identified those as jute goods that were manufactured at Rangpur, the jute heart-land of Bengal. Because of the similarity of their fibres, possibly jute was recognized as sun-hemp, hemp and flax, which were variously known locally as *san, bhanga, goni, pat, gania* etc. Similar confusion prevails in the contemporary literature as well. For example, Milburn reported the export of hemp from Bengal during 1786-1808, which included jute also.[11] In a log-book of a ship, however, Temple[12] discovered the word 'jote' as an article of export. This, indeed, signifies that even during the Mughal period jute used to be exported from India. A clear distinction between hemp and jute was, however, reported for the first time in 1793 when government statistics reported trade under the heading 'hemp other than jute'[13]. In the same year, Roxburgh of Sibpur Botanical Garden in Calcutta sent 100 tons of fibre to England for experimental purposes under the heading of jute.

[8] Watt, The dictionary of the economic products of India, p.409
[9] Uddin, The rise and fall of jute, p.15
[10] Jarret, transl., ii., 123 as referred in watt, p. 410
[11] Three kinds of hemp that were reported were *sann, ghore-sann and* the *paut* (the local nomenclature of jute).
[12] Ind. Antiq., 1901 as referred in Watt, p. 410
[13] Ibid, p. 409

Jute is variously called as *pat, patta, jhot, jhut* and *khosta* in the contemporary province of Bengal.[14] The word *'Khosta'* has possibly been derived from the Sanskrit word *'Khosa'*, which means a sheath. From this nomenclature, it appears that the fibre belongs to the upper portion of the bark of the stem. The term *jhot* and *jhut* were used in the districts of Cuttack, Puri and Balasore of the present jurisdiction of Orissa, and also in Midnapore district of the present jurisdiction of West Bengal. Roxburgh[15] first heard the name of *'jhot'* from a worker who hailed from Orissa. The term jute was possible derived from this term *'jhot'*. The etymology of jute thus gives rise to a hypothesis that the home of this fibrous plant was the south-western part of the erstwhile Bengal province, which now belongs to Orissa.

Botanically jute is called *Corchorus (C.)* with two different species, *C. Capsularies* and *C. Olitorius*, having different characteristics[16]. There are many specimens of *C. Capsularies* in the herbaria of Calcutta and Kew, which have been collected from various places of India such as upper Assam, Bengal, Sikkim Terai, Moradabad, Saharanpur, Kanara and Mysore, as also from China, Japan, and Ceylon.[17] Interestingly, no such specie is obtained from the continents of Africa and North America, or the gulf of Persia. Also, nowhere in the accompanying notes of those specimens is it stated that the plant was wild in India, Malaya, Japan, or in China. Those were rather reportedly collected from cultivated sources.

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[14] Ibid, p. 408
[15] Kerr, Report of the cultivation of jute, p. 19
[16] Ibid, p. 12
[17] Watt, The dictionary of the economic products of India, p. 407

Roxburgh[18], however, surmised that *C. Capsularies*, especially the red stemmed ones, grew wildly at Canton in China, which were subsequently brought to, and thus flourished in, Bengal. In support of his conjecture, he pointed out that the plant had flourished only in those belts of Bengal that had similar climatic features to the Chinese ones. Detailed documentary evidences about its cultivation, industrial processing and trade in China, though, are available only from the late nineteenth century. Thus, for example, Brechncider[19] found extensive cultivation of *C. Capsularies* in China in 1898, and the journal of the Board of Trade[20] reported in 1903 an export of 10,000 cwt of jute from Tientsin (of China). It is worth mentioning that although no specimen from North America is found in any herbarium, Plukenet (1696)[21] reported the existence of such a plant in that continent with long leaves that gave fruits.

An altogether different story is available for *C. Olitorius*. The herbarium sources reveal it to be mostly cultivated in gardens, and that, as we specifically learn from the specimen of Rottler, it was widely used in Bengal for paper making. Collections of the herbarium are found from India (such as Madras, Mysore, lower Bengal, Moradabad, and Simla), Afghanistan, and China (especially Yunnan), Ceylon, as well as from Africa and Egypt from where no specimen is found for *C. Capsularies* in herbaria. From the accompanying notes of a flora from British India it appears that India was the home of this plant that subsequently spread

[18] Roxburgh, Trans.Soc. Arts.,1806,xxiv.,146,151
[19] Bretscheider, History of European Botanical Discoveries In China, 1898, l. c. 441
[20] Great Britain, Board of Trade Journal, October 29, 1903
[21] Plukenet, Alm. Bot.,1696,ii., t. 255, f.4 as referred in Watt

to various tropical countries for cultivation. In Bengal, especially in the districts of Burdwan, Khulna, 24 Parganas and Hoogly it grew wildly in various places, including the roadsides. On the difference between *C. Capsularies* and *C. Olitorius*, however, the accompanying notes of Calcutta and Kew herbaria suggest that while the former was used for the purpose of commerce, the latter was consumed directly, and also served medical purposes. In this context, confusion brewed around the mid-eighteenth century over the opinion of Rumphius[22] that *C. Capsularies* was an edible specie in Bengal (locally called *sag*) that was indigenously known as *padhac*. His confusion probably cropped up for wrongfully identifying it with *Ganja Sativa*, which he clarified later on.

Both the species of *Corchorus* are now consumed as vegetable in Bengal. It has indeed two parts, edible and fibre. Its fibre is traditionally used to make cordages, ropes, sack cloths, bags (locally called *choti* or *goni*) and paper. Its edible part is called *nalita* or *melochia*. The vernacular name of *C. Olitorius* is variously called as *ban-pat*, *deshi pat* and *tosha*. The *ban-pat* is indicative of its wilderness while *deshi pat* (as also *tosha*) was surely an edible variety. Roxburg[23] indicated *C. Capsularies* as the *ghi nalta pat* and Dutt as the *narches*. A brief description of these two species of *Corchorus (C.)* in terms of their leaves, flowers and fruits are, however, shown in Table 1.1.

[22]Ganja Sativa, Rumphius, Herbarium Amboinense ,1750, v., 212, t. 78, f.1
[23] Fl. Ind., ii., 581 as referred in Watt, p. 406

Table 2.1: Descriptions of *C. Capsularies* and *C. Olitorius*

Name of species	Leaves	Flowers	Fruits
C. Capsularies	Glabrous, not beaked	Small and sub-globose,	Warted
C. Olitorius	Glabrous, beak along	Larger, smooth	Smooth when matured but warted when immature

Source: Watt, The dictionary of the economic products of India, p.406

From a contemporary source Table 1.2 gives a concise description of three varieties of *C. Capsularies* that were found for industrial use in Bengal.

Table 2.2: Brief description of C. *Capsularies*

Name of the specie	Height of the plant (in feet)	Season of cultivation	Appropriate soils
Tarla	10 to 12	late in June	inundated area
Bombay	9	early July	Un-inundated area
Deswal	7	early July or late June	Un-inundated area

Source: Watt, The dictionary of the economic products of India, p.407

II

From the view point of fibre, there were qualitative variances of the plant across the districts of Bengal, and accordingly it got various names in commercial transactions. One of the finest fibres was the *uttariya* (a dialect of the term 'northern') that referred to the fibre from the plants that grew in the northern districts of Serajganj, namely, Rangpur, Goalpara, Bogra, Mymensing, Coach Behar and Jalpaiguri. Whatever was its length, colour and strength the market ranked it the best in quality. Also in hill areas it was cultivated for extensive uses among the *Hajung* and *Koch* tribes as dress-materials. In point of its fineness, strength,

softness as well as bright colour, the *deswal* (i.e. indigenous) coming from Serajgunge (near Dacca) and its neighbourhood the fibre was of a good quality. It was so called only when the plant was grown on *churs* (i.e. dry river-beds) but if planted on *beels* (i.e. marshy lands) it was called *bilan.* Among other good varieties of the fibre, mention should be made of the *desi* (again, indigenous) (grown in the districts of Hoogly, Burdwan, Jessore and 24 Parganas), the *karimgunji* (grown in Karimgunj in Mymensing), the *barkrabadi* (grown along the *churs* of the Megna in Dacca) and the *narraingunji* (grown in Aralia, Narraingunj and other places near Dacca). These fibres usually found outlets in the gunny trade, and were also spun for cloth-materials because of their softness, strength and length. We should also mention about the *jangipuri,* produced in Pubna, which was short and weak with a foxy colour but very suitable for the purpose of spinning. A number of inferior varieties were also grown in Bengal such as the *deoro* (grown in Faridpur and Backergunj), *bhaital* (coming from Narraingunj south of Bhati), and *mirajganji* (grown on the *churs* of the Teesta in Rangpur district). These inferior fibres were also often exported, mainly to Great Britain, but used primarily for the making of ropes and cordages, both for the home market and export. Table 2.3 shows the district-wise distribution of jute cultivation in Bengal in 1872. Since, as we will see shortly, the modern jute mill did not come up in a big way by this period, we may consider it representative of the pre-1850 scenario.

Table 2.3: District-wise Distribution of jute cultivation in Bengal

Present jurisdiction	District	Variety	Present jurisdiction	District	Variety
West Bengal	Dinajpur *	Both c.capsularies and c. olitorius	*Bangladesh*	Pubna	Both c.capsularies and c. olitorius
	Jalpaiguri	Both c.capsularies and c. olitorius		Backerganj	Both c.capsularies and c.olitorius
	Darjeeling	Both c.capsularies and c. olitorius		Rangpur	Both c.capsularies and c. olitorius
	Cooch Behar	Both c.capsularies and c. olitorius		Mymensing	Both c.capsularies and c.olitorius
	Malda	Both c.capsularies and c. olitorius		Bogra	Both c. capsularies and c. olitorius
	Murshidabad	Both c.capsularies and c.olitorius		Dacca	Both c. capsularies and c. olitorius
	24 Parganas	Both c.capsularies and c.olitorius		Farridpur	Both c.capsularies and c. olitorius
	Bankura	c. capsularies		Sylhet	c.capsularies
	Birbhum	Both c.capsularies and c. olitorius		Rajshahi	Both c.capsularies and c.olitorius
	Hoogly	Both c.capsularies and c.olitorius		Jessore	Both c.capsularies and c.olitorius
	Midnapur	Both c.capsularies and c.olitorius		Noakhally	Both c.capsularies and c.olitorius
	Sunderbans	Both c.capsularies and c.olitorius		Nowgong	Both c.capsularies and c.olitorius
	Burdwan	Both c.capsularies and c.olitorius		Chittagaon	c.capsularies
	Howrah	Both c.capsularies and c.olitorius		Cachar	Both c.capsularies and c.olitorius
	Nadia	Both c.capsularies and c.olitorius			

Source: Kerr, Report on the cultivation of jute, p. 22
N.B: *Partly in Bangladesh.

The table shows that jute was cultivated in as many as 15 districts of the present jurisdiction of West Bengal, and 14 districts of that of Bangladesh. Most of these jutes were c. capsularies while c. olitorius was grown only along with it, and became an insignificant crop by 1872. The former was however, cultivated exclusively in four districts viz. Coach Behar, Bankura, Sylhet and Chittagong.

Jute was grown in various types of land, high land (called *suna*), low land (called *sali*), dry river-beds (called *churs*), dry land, and even in the humid land of recently formed alluvium, although these variations caused qualitative differences. From the viewpoint of quality, the *suna* land was best suited for *c. capsularies*, and the *sali* for *c. olitorius*. In terms of soil textures, however, loomy soils and clay soils, rich in sand, gave higher productivity while its productivity ran low in laterite and saline soils. The land type and soil texture, however, determined the sowing season of the plant in a region. It started from about February and continued through June. The earliest variety, the *bilan*, grown in the marshy land, was planted during February and available in the market during July-August. The late variety was the *utraya* that was planted around June and harvested as late as in November.

For the sowing of jute, soils were first ploughed four to six times removing the weeds in the final plough.[24] About eight pounds of seed were then sowed per acre dividing the plot in lines with nine inches spaces in between. For fine and strong fibres, however, soils were

[24] Martin, The history and statistics of Eastern India, Vol.-III, p. 851

manured at the rate 150 maunds per acre. Plants were harvested when they were full of flowers with fruits stemming out. At the time of harvesting they stood five to six feet in height.

The separation of fibre from the green plant, however, involved several stages. In the first stage, stems were cut out from roots, and were left in fields for 3-4 days in bundles for the purpose of drying. In the second stage, the stalks were kept in clean water, mixed with a little amount of cow-dung, in a nearby pond for the purpose of cleansing. In the third stage, the bundles were hung on a frame of bamboos for 10-25 days long until the fibres were completely released. In the fourth stage, the tissue- particles were removed using clean water. Finally, they went through a drying process again for 2-3 days on the bamboo structure, and then were ready for sale in the market.

Raw jute mainly found three types of industrial usages in contemporary Bengal, viz. (a) rope and cordage making, (b) paper-making, and (c) manufacturing of gunny cloth and bags.[25] The last one was surely the most important article. For this article the fibre was spun in the handloom industry using the naive instruments like *takur* and *dhara*, which were manufactured by village artisans. *Takur,* made up of wood in a conical shape, was used for the purpose of spinning while *dhara* was a kind of reel, also made of wood. In spinning process, the artisan at first tied up a bundle of fibres at a post or at the roof of his hut, and reeled it on *dhara* separating threads from the lower parts of

[25] Indian Central Jute Committee, Report on jute , p. 2

bundle, and then twisting them in a clock wise direction. The twine, thus made, was then joined to a *takur* which was rotated against this thigh or his calf for the purpose of reeling[26].

The yield rate of jute varied across the districts, ranging from 2-3 maunds to 20 maunds per begah. Table 2.4 shows the district-wise area and production of jute in Bengal along with their respective levels of exports.

Table2.4: District-wise area and annual production of jute in Bengal in 1872

Districts	Total agricultural area in acres	Area under jute (in acres)	Production of jute (in maunds)	Export (in maunds)
Pubna	876,640	122,880 (14.07)	1,873,200	NA
Dinagepore	1,650,400	117,629 (7.12)	1,764,435	NA
Rangpur	1,600,000	100,000 (6.25)	1,500,000	2,258,508
Mymensigh	1,344,000	84,000 (6.25)	1,260,000	1,850,000
Bogra	411,001	48,599 (1.39)	698,985	260,284
Dacca	1,685,414	40,000 (2.37)	600,000	1,160,411
Furreedpore	859,771	16,666 (1.93)	249,990	220,000
Goalparah	2,769,280	15,000 (0.54)	225,000	150,000
Rajsahi	1,280,000	14,333 (1.11)	214,995	130,000
Bakerganj	199,491	11,666 (5.84)	174,990	250,000
Jessore	2,024,960	6,385 (0.32)	95,775	160,000
Noakhally	599,417	3,636 (0.60)	54,540	6,817
Nowgong	820,480	1,457 (0.17)	21,855	NA
Chittagong	97,999	100 (0.10)	1,500	NA
Sylhet	.....	666	9,990	9,000
Darjeeling	16,462	1,500 (9.11)	22,500	NA
Jalpaiguri	1,260,800	50,000 (3.97)	750,000	NA
CoachBehar	600,000	25,000 (4.16)	375,000	NA
Maldah	670,080	3,500 (0.52)	52,500	2,700
Murshidabad	1,106,782	3,666 (0.33)	54,990	NA
24 Parganas	2,919,680	47,162 (1.61)	707,450	105000*
Hooghly	640,000	32,000 (5.00)	160,000	NA
Midnapore	2,304,000	8,000 (0.35)	120,000	NA
Jessore, Sunderban of 24 Parganas, and Backerganj	505,739	6,220 (1.22)	93,300	NA
Burdwan	1,802,244	4,000 (0.22)	60,000	15,000**
Howrah	220,800	2,666 (1.20)	39,990	NA
Nuddea	----------	1,000	15,000	NA
Tripura	2,000,000	78,389 (3.91)	1,175,835	1,000,000

[26] Ibid,p.7

Purnea	2,400,000	75,000 (3.13)	1,125,000	200,000
Cuttack tributary Mehals	1,271,550	4,228 (0.33)	63,420	NA
Puree	---------	1,000	15,000	NA
Balasore	538,259	1,000 (0.18)	15,000	2,500
Kamroop	---------	310	4,650	NA
Durrung	1,682,560	186 (0.01)	2,790	NA
Cachar	1,530,360	55 (0.003)	825	NA
Total	**37,735,100**	**925,899 (2.46%)**	**13,568485**	**5,750,553@**

Source: Kerr, Report on the cultivation of jute, p.65
N.B. * The figure is for Barasat and Alipur in the source. ** It is for Khulna in the source. @ It also includes the figure for Lohardugga. (---) Indicates a significant figure or even nil.

Table 2.4 shows that only 2.46 per cent of total agricultural area in Bengal was used in the cultivation of jute, signifying that till 1872 jute was not at all an important crop in Bengal for them. This is obviously taken to mean that modern jute mills were yet to come up in this province in a big way by the early 1870s. District-wise analysis of data, however, indicates that the largest proportion of land was devoted to this crop in Pubna, followed respectively by Dinajpur, Rangpur, Dacca, Backerganj and Mymensing. In the present jurisdiction of West Bengal, Darjeeling, Coach Behar and Jalpaiguri were ahead putting higher proportions of land under jute than the province-level average figure. In other districts, barring 24 Parganas and Hoogly, less than one per cent of the agricultural land was put under this crop.

In comparison to the present jurisdiction of West Bengal, the districts now belonging to Bangladesh performed better in respect of jute cultivation. Land under the cultivation of jute in those districts accounted for almost four percent of their cultivated area whereas it was

only 1.88 percent in West Bengal.[27] In respect of the yield of crop, they produced three times greater than what was produced in West Bengal. The yield per acre was also higher in the districts of Bangladesh. It was as high as 15 *maunds* per acre as against about 13 *maunds* in West Bengal. Qualitatively also, the Bangladesh fibres were much superior, which we have already pointed out. While confirming these observations Sharma noted, "As regards humidity and rainfall, we find that the cultivated area under jute and average outturn per acre are much higher in tracts of higher humidity and higher early and late rainfall.....Thus Dacca, Mymensing, Tripura and Faridpur, which all possess higher humidity and rainfall, are the best producers of jute in the Province."[28]

The marketing of jute was based on a multi-tier network. A number of intermediaries were involved in between jute growers and its final users. Farmers dealing with jute had least access to the contemporary transportation system due to in their low level of income, on the one hand, and a high cost of transportation, on the other. They, therefore, always disposed of their crop at village markets, locally called *hat.* Buyers in these markets were predominately *Mahajans* who lent money to jute growers at the sowing season on condition of its repayment in kind after harvest. They also purchased jute from the *hat* to enhance their stock. They apart, *Paikars* were the other constituent buyers in these village markets. In many cases the wholesale traders used to employ their agents on commission basis to purchase raw jute from

[27] These calculations exclude the districts which were neither in the present jurisdiction of Bangladesh (i.e. erstwhile East Bengal) nor in West Bengal.
[28] Tulsi Ram Sharma: Location Of Industries In India (1946), p. 86.

those village markets. Those agents had expertise in the quality assessment, and purchased raw jute according to the need of their respective principal-whole-sellers. Obviously, they did not suffer from market risks.

These various buyers, who called *baperies* or *dealers* in the primary market, headers bought raw jute from ryots at the *hat* and sold them to the *mahajan* or *aratder* at marts, the secondary market. Big marts with extensive storage capacities were found mainly at Narraingunj (in Dacca), Serajganj, and Madaripur (in Backerganj) along the banks of the Bramhaputra and the Meghna respectively so that jute could be easily transhipped to Calcutta through the Ganges. Calcutta assumed importance in the map of jute trade because of its sea-port as well as the concentration of the user-industries in and around the city. Serajganj used to receive the crop from the districts like Rangpur, Goalpara, Bogra, Mymensing, Rajshahi, and Coach Behar. Products of Noakhally, Borisal, Mymensing, Tripura, Sylhet, and the banks of the Luckhea were sent to the mart of Narraingunj. The Deora jute that was cultivated in Farridpur and Backerganj was chiefly available at Madaripur. Besides these, Dinajpur, which was known as gunny bag manufacturing centre of North Bengal, sent its raw and finished goods to Debiganj, situated on the bank of the river Atrai. A large portion of the produce of Hoogly was sent to Gouripur and that of Purnea to Mirazpore in North-Western province.

Information is lacking on the internal trade of jute among the districts of Bengal. But there are evidence on the flow of raw jute from

the surplus districts to deficient ones. Thus, for example, the districts like Burdwan, Birbhum, and Chittagong imported raw jute from Serajganj whereas Murshidabad imported it from Dinajpur, Rangpur, Pubna, and Malda. Jute used to be exported outside the province as well. Champaran and Tirhoot imported it from Bengal proper for the packaging needs of their indigo factories, and also Patna for its saltpetre factories. Based on jute from Bengal, the cottage jute handicraft industry was also developed outside of Bengal proper as well.

Generally internal trade was carried out by boat or by cart[29]. Cart was mainly used for the intra-district trade while boats and steamers were used for inter-district transportation. Transhipments to Calcutta were, indeed, confined to the mode of water transportation. Though it was the cheapest mode by all means, its cost varied according to distance and circumstances. We note in this context that certain districts sent their produce directly to Calcutta while others took resort to circuitous routes in the absence of direct link with the city. The following table presents the transportation cost of jute from various districts to the port city of Calcutta.

Table 2.5: District-wise Cost of Jute Transportation to Calcutta by Boat

(Per maund)

District	Rs.	A.	P.
Rangpur	1	2	0
Mymensing	0	0	5 (average)
Serajganj	0	4	0
Purnea	0	0	8
Bogra	0	12	0
Rajsahi	0	0	17
Narraingunj	0	9	0

[29]Indian Institute for Regional Development Studies, Spot light on jute, , p. 3

Furreedpore	0	0	23 (average)
Pubna	0	4-7	0
Bakerganj	0	5-5½	0
Mymensing	0	0	43
Malda	0	3-4	0

Source: Kerr, Report on the cultivation of jute, p.64

Transportation costs were certainly higher for those districts which could not send their crops directly to Calcutta. To acquaint to such freights we note that jute transportation to the mart of Serajganj by boat involved a cost of Annas 6 per maund from Coach Behar, and Annas 4½ per maund on average from Goalpara. Narraingunj in Dacca received jute at an average cost of Paise 4 per maund from Tripura, Paise 15 per maund from Balalganj in Sylhet, and Paise 7 per maund from Lukhan, also in Sylhet. Jute traders in Hoogly used to send their wares at first by cart to the bank of the Ganges for the final shipment to the principal destination, Calcutta, by boat. It involved a cost of 1 pie per maund per mile. Some times Mymensing sent its product either to Serajganj or to Narraingunj, but the cost of boat is not readily available.

If we consider only those districts which directly transhipped their products to Calcutta, we get the average transportation cost at Paise 42 per maund. An additional Paise 20 should be added to this on an average if the transportation involved a circuitous route.

There were three alternative arrangements of sale at the Bamunghata toll house which was situated at the outskirt of Calcutta. Firstly, jute could directly be sold from the boat at that place by paying a toll tax of one Anna per maund. Secondly, jute could be stored at the

arat, the commission agent's godown, at Bamunghata. The costs in that case were one Anna per maund to the Toll House, as before, and three pie per maund on account of the godown rent. Thirdly, the consignments might be sent to interior Calcutta by boat after the payment of the toll tax. In that case, the consignee was to send *Khalgastis,* the unloading porter, who were to be employed at Bamunghata. Transactions made in these cases were through brokers from the sides of both buyers and sellers. Sometimes the consignee gave advances to the consignor charging an interest at 12 per cent per annum. Residual payments for excess or short falls were settled within one month. In many cases, the consignor also paid advances to petty traders in jute growing districts. No interest was charged if the latter delivered their entire amount of procurement. Otherwise, a 12 per cent interest rate was charged.

Besides the commission of one Anna per maund, the following costs (in terms of both cash and in kind) were involved in the process of sale.

Table 2.6: Details of selling costs of raw jute in the intermediate markets:

Particulars	Expenditures		
In cash	Rs.	A.	P.
Weighing For 100 maunds	0	2	0
Coolies for removing from boats	0	6	0
Coolies for placing on scales	0	3	0
Collies for placing on scales carts to godown	0	1	3
Tally man	0	0	3
Brokerage to buyer's broker	0	0	3
Jachabder on each cart-laod	0	1	3
Total	0	15	12
In kind			
Jachander	2 seers per 100 maunds		
Brokerage	¼ seers per drum		
Puja	3¾ seers per 100 maunds		
Weigh man	3¾ seers per 100 maunds		

Source: Kerr, Report on the cultivation of jute, p.68

Thus, a sum of 15 Annas 12 Paise per 100 maunds was involved as the intermediary cost of transaction. This was in addition to the cost of toll tax and transport cost.

III

A district-wise comparison of jute production and their import/export statistics, as available in table 2.4 gives us an idea about the dispersal of the industry across the districts. The table underscores that the quantity of export exceeded the domestic level of production in certain districts such as Rangpur, Mymensing, Dacca, Backerganj, and Jessore. These districts must have then imported the balance of export over production. On the basis of this surmise we infer that those districts imported jute by 758,508 *maunds,* 590,000 *maunds,* 560,411 *maunds,* 75,010 *maunds,* and 64,225 *maunds,* respectively. We take statistics to signify that jute manufacturing must have flourished in those districts. In the quest for the sources of these imports, however, we find that the districts like Bogra, Farridpur, Goalpara and Rajshahi used to export their surplus production over the domestic uses for direct consumption and industrial uses. This signifies that those districts should certainly be more fertile for jute but jute processing as an industry was not adequately developed there to absorb the domestically available raw materials.

From the reliable source it is, however, gathered that total export of jute in 1872-73 was 7,155,689 cwt (i.e. 9,758,213 maunds)[30] which accounted for 71.92 per cent of the aggregate production of 13,568,485 maunds[31]. The remaining 28.08 per cent must have been directly consumed, and/or industrially processed within those districts. In fact, this proportion held true for a number of districts such as Jalpaiguri and Dacca (vide Table 2.7). Table 2.7 reports district-wise industrial use of raw jute along with the product lines and their marketing.

Table 2.7: District-wise production and uses of jute in Bengal

Districts	Type of Fibres used in industry	Amount of industrial use	Product-mix	Marketing
Birbhum	Desi, Doolagunge	About 600	Gunny bags	Export
Mindnapore	Kosta, Naskarkani, Kangra jute	Cannot be estimated	Gunny, ropes, strong cord	Gunny bags chiefly export
Hoogly	Desi jute	1,20,00 maunds annually	Ropes, gunny cloth and gunny bags	Export
24 Parganas	Ditto	640 Maunds	Gunny and twine	Export
Burdwan	Both good, and inferior jute	350 maunds of good and 5.690 maunds of inferior jute	Gunny cloth and bags, twine and ropes	Local use and export to Calcutta
Jessore	Ditto	780 maunds	Gunny for bags and sails, twine and ropes	Local use and export to Backerganj
Rangpur	Ditto	50,187 maunds	Paper, gunny bags and tats	Export and locally use
Pubna	Baboon, Hemtal, Shoynee, Mesta, and Desi	1,350 maunds	Gunny cloth and chats	Export and locally use
Dinajpur	Jute	233,514 maunds*	Gunny and twine	Export and locally use
Cooch Behar	C. Capsularies	Not known	Coarse and fine gunny cloth and mekhi cloth	
Darjeeling	Red, white and Marah, Emleah and	Hardly possible to give	Gunny cloth, fishing nets, and	Locally use and surplus sold at

[30] Kerr, Report on the cultivation of jute, p.71

[31] Moral and material progress, 1873, vol. 44, p. 18

	Chera-mara		ropes	hats.
Jalpaiguri	Jute	One-fourth in to gunny bags	Gunny bags	One-fourth locally use and three fourth export
Dacca	Mesta, Coshta for paper, inferior jute for other purposes.	90,000 maunds	Rope,bags, paper,sails, twine and gunny sheets	One-fourth locally use and three-fourths export
Malda	Ditto	25,000 maunds	Gunny cloth, paper and thread.	Sold at hats and locally use.
Backerganj	Ditto	600 maunds	Gunny bags and paper	Locally use and export
Tripura	Ditto	2,125 maunds	Gunny bags	Locally use and export
Sylhet	Ditto	405 maunds	Gunny bags and gunny cloth, sheets	Locally use and export
Mymensing	Greater proportion of inferior jute.	12,000 maunds	Gunny bags and paper	Locally use
Furredpore	Desi, Bogi, Belun, Mesta	1,700 maunds	Gunny sail, twine, and cord	
Chittagaon	Jute	1,200 maunds	Rope and gunny	Locally use
Noakhally	Inferior jute but Mesta for paper	105 maunds	Gunny ropes and paper	Locally use
Bhalpore	Jute		Strings	Locally use
Cuttack	Ditto	500 maunds	Gunny bags, rope, paper	Locally used
Murshidabad	Ditto	38,000 maunds	Gunny bags, rope, sack cloth, packs for bullocks and nets	Locally use

Source: Kerr, Report on the cultivation of jute, p.82

- Estimated from Martin, pp. 580, 852.

Table 2.7 generates five major conclusions. First, the table points out that three-fourth production of jute in Bengal were exported outside the province while only one-fourths of it was used domestically. Secondly, the districts like Birbhum, Midnapur, Hoogly, and 24 Parganas entirely exported their manufactured goods to outside markets. Possibly their locations near the Calcutta Port enabled the industry to cater exclusively to the global market. Thirdly, these districts did not top in the

list of jute exporting zones, which Rangpur, Dacca, and Mymensing occupied. In fact, the spatial distributions of jute cultivation and its manufacturing activities suggest that the industry was not localised nearby the raw material zones.[32] This is possibly explained by the fact that raw jute weighed almost the same as its output. The industry's localisation was rather determined by the proximity to the market, availability of skilled labour, and, indeed, an efficient transportation network. These factors explain why the handloom jute industry flourished in the districts of the present jurisdiction of Bangladesh, particularly, Dacca, Rangpur, Backerganj, Dinajpur and Bogra. Fourthly, jute was also cultivated extensively in Mymensing, Chittagaon, Noakhally, Bhalpore and Murshidabad, but its entire products were consumed locally. Fifthly, certain districts like Burdwan, Jessore, Rangpur, Pubna, Dinajpur, Darjeeling, Malda, Backerganj and Sylhet partly used up jute products locally, and partly exported them to outside markets. An additional inference from this table is that the handloom industry developed mainly in those districts where it got the support of domestic market. There might have been two types of domestic market; one, for packaging purposes, and two, for the manufacturing of cloths that were used in bedding, screens and garments. Jute garments were, however, made up of sack cloth, which was an inferior commodity consumed by the poorer section of the society. In fact, the developed status of sack-cloth manufacturing indicated the predominance of poorer

[32] Dr. P. S. Loknathan holds a different view on this point. He writes: "The jute industry seems, however, to be an exception to the general theory of localization of the textile industries. Its raw material is cheap and it can not therefore afford much transportation cost." Industrial Organization in India, p. 64.

people in those districts. Cooch Behar and Murshidabad belonged to this category.

Bengal's handloom jute industry occupied monopoly in the global market before the spread of modern jute technology at Dundee from the late 1830s.[33] Table 1.6 reports the export trend of jute from Bengal before the 1840s.

Table 2.8: Annual export of jute product from Calcutta from 1828-1838

Year	Quantity (cwt)	Value (in Rs.)
1828-1829	15,392	27,712
1829-1830	7,840	12,436
1830-1831	11,162	23,498
1831-1832	34,171	70,701
1832-1833	35,500	67,682
1833-1834	78,260	143,509
1834-1835	32,824	55,771
1835-1836	17,747	36,345
1836-1837	233,246	441,592
1837-1838	124,303	181,066

Source: Select Committee, P.P, H.C, 1840, Vol-8, pp.1

Bengal thus exported more than 15,000 bags in 1828-29 that were valued at about Rs.28,000. It rose almost steadily in number to 78,260 in 1833-34 and further to 233,246 in 1836-37, and in value to Rs.143,509 and Rs.441,592 in respective years. The annual growth rate is thus worked out at 176.93 per cent and 186.69 per cent for the quantity and value series respectively during 1828/29-1836/37. These confirm that Bengal's handloom jute industry got a good entry in the world market prior to the emergence of the modern jute industry at Dundee. We report in Table 2.9 the major destinations of handloom jute

[33] Watt, the dictionary of the economic products of India, p.423

during 1828/29-1831/32. It shows that the United Kingdom was the major importer of Bengal jute goods during this period consuming about 90 per cent of them. Though America also imported it, the amount was insignificant.

Table 2.9: Export of handloom jute from Calcutta to Foreign countries

Year	Country	Quantity	Value (in Rs.)
1828-1829	United Kingdom	14,565	25,903
1828-1829	Coast of Malabar	827	1,809
1829-1830	United Kingdom	9,688	19,967
1829-1830	America	1,326	2,930
1830-1831	United Kingdom	30,867	62,202
1830-1831	America	1,981	5,833
1831-1832	United Kingdom	33,800	64,535

Source: Select Committee, P.P, H.C, 1840, Vol-8, p.1

By the early 1850s, however, Bengal's jute products could substantially diversify its market in the global context. It successfully penetrated into the markets like North America, and also a number of Asian countries. The following table is evidence to it:

Table 2.10: Export of gunny cloths and bags from Calcutta in 1850-51

Destinations	No. of bags and cloths	% of total export
United Kingdom	69,636	0.77
Hamburg	2,180	0.02
North America	2,290,427	25.34
Coast of Coromondal	1,955,150	21.63
Malaber	2,054,075	22.73
Penang and Singapore	1,043,600	11.54
Ceylon	357,290	3.95
New South Wales	32,125	0.35
Java	242,550	2.68
Pegu	672,950	7.44
Mauritius	213,980	2.36
Cape of Hope	82,750	0.91
Guam	15,000	0.16
Arabian and Persian Gulf	4,000	0.04
Total (in number)	9,035,713	
Value (in Rs.)	2,159,782	

Source: Wallace, Romance of Jute, p.1

North America became thus the largest importer of gunny bags from Bengal purchasing more than 25 per cent of her total export. In contrast, the United Kingdom was only an insignificant importer. Surely, the growth of Dundee jute industry in the previous decade explains the declining importance of Bengal jute products in Great Britain. The industry also got extensive supports from the domestic markets like Bombay and Madras where it respectively exported 22.73 percent and 21.63 percent of the total assignment in 1850-51. The other destinations of Bengal handloom jute exports included mainly Ceylon, Java, Pegu and Mauritius who procured more than one percent of the consignments from Bengal.

It is interesting to note that the scenario changed rapidly during the 1860s. A source informs that out of Bengal's aggregate jute export of Rs.7,716,910 in 1866, the United Kingdom imported Rs7,293,530 (i.e. 94.51 per cent) as against Rs.39,000 in America, Rs.15,970 in France and Rs.12,890 in Ceylon.[34] Definitely such a trend was due to the inclusion of raw jute in the series, where the newly set up mills at Dundee were the bulk consumer.

IV

We thus find that the cultivation of jute was concentrated mainly in the eastern half of the province, especially in the districts of Pubna, Dinajpur, Rangpur, Dacca, Backerganj, Mymensing. Both in respect of

[34] Statistical abstract, P.P, H.C. 1867-68, Vol.71, p. 1

area under jute and its yield rate, East Bengal was ahead of its Western counterpart. As a proportion of total land under plough, the jute acreage was 4 percent in former and 1.88 Percent in latter with their yield rates at 15 maunds and 13 maunds per acre respectively.

The district-wise production of jute fibres and its local uses reveals the following aspects of jute processing and its trade: a) three fourth production of jute in Bengal was exported outside the province while only one-fourths of it was used domestically; b) the districts like Birbhum, Midnapur, Hoogly, and 24 Parganas entirely exported their manufactured goods to outside markets. Possibly their locations near the Calcutta Port enabled the industry to cater exclusively to the global market; c) though jute was also cultivated extensively in Mymensing, Chittagong, Noakhally, Bhalpore and Murshidabad, their entire products were consumed locally, d) certain districts like Burdwan, Jessore, Rangpur, Pubna, Dinajpur, Darjeeling, Malda, Backerganj and Sylhet partly used up jute products locally, and partly exported them to outside markets, e) the spatial distributions of jute cultivation and its manufacturing activities suggest that the industry was not localised nearby the raw material zones, f) the handloom jute industry flourished in the districts of the present jurisdiction of Bangladesh, particularly, Dacca, Rangpur, Backerganj, Dinajpur and Bogra, g) the handloom industry became developed mainly in those districts where it got the support of domestic market.

Bengal hand loom jute industry occupied monopoly in the global market before the development of modern jute industry at Dundee. Even after the emergence of Dundee mills, it grew apace in the global trade. Though the main importer was the United Kingdom consuming 90 percent of total export, the industry later diversified its market to as many as 12 countries by 1850-1.

There was a three-tier marketing net work in the internal trade of jute. It was constituted of primary markets at the village level, secondary markets at the districts level and a province level market at Calcutta. While both bullock carts and boats were used at the district level transportation, large boats and steamers were employed for transshipment to Calcutta. The transportation cost in the internal trade has been worked out at Rs.0.42 per maund on an average in the direct routes with an additional cost of Rs. 0.20 for circuitous routes. This study has also revealed estimated cost of Rs. 1.02 per 100 maunds for intermediate transaction in the internal trade.