

CHAPTER - 2.

HISTORY OF JUTE INDUSTRY

1. Introduction :

The demand for rawjute is derived demand. i.e. raw jute is demanded only for production of jute goods. In India jute mills came to be established in the 1950's. The first jute spinning mill was set up by George Acland, an ex - official of the British Merchant Navy. He set up his mill at Rishra on the Western bank of the river Hooghly, in 1955. Since the demand for jute cloth as a packing material was expanding with the growth of world trade, the jute mills found a ready market for their products. But difficulties of financing and procuring the requisite machinery prevented a rapid expansion. From the very beginning the indigenous jute industry faced the competition of the jute industry of Dundee. But the superior advantage enjoyed by the Indian industry in the form of cheaper raw material and labour as well as the lower level of taxes enabled the Indian industry to survive in competition and earn comparatively high profits, Around 1894, the Hastings Mills introduced a night shift and this sparked off protest by the Dundee Chamber of Commerce to the Secretary of State for India, alleging violation of the Factory Act, and the lack of trained inspectors to enforce the observation of the Factory Act., by Indian mills generally. Sir John Leng, the Senior M.P. for Dundee, visited India and inspected Indian jute mills. He ended up with the tribute that "the hands in these mills are among the best paid native workers in India," Not all Dundee interests were appeased by Sir John's acquiescence in the views regarding

Labour Welfare held by the jute mill managers in India. However, Dundee had several firms strongly interested in the supplying of jute machinery to Indian mills and there were probably firms, interested in both the Dundee and the Indian Jute Industry. Dundee was also an important centre of entrepot trade in jute. So, the hostility did not break out into open warfare.

From 1855 to 1863-64 only one more mill was built, but from 1863-64 onwards the growth of the industry was fairly rapid. Jute was a monopoly of India and in this the Bengal industry had a strong advantage. Hitherto Dundee, which had successfully killed the handloom industry, controlled the entire market. But the Bengal industry soon established its position. Of this Mr. O' Connor, in 1876, remarks : "While Dundee had only hand-woven jute stuffs made in India to compete with, that city had practically the monopoly of the world's supply, but the development of the manufacturing industry here, in mills, furnished with the best mechanical appliances moved by steam, has had the inevitable result of shuttering Dundee out to a great extent from the Asiatic and Australian markets, and even from a part of the American market". (J.E. O'Connor, Memorandum, Account of the Trade and Navigation of British India, 1875-76, p. 31). In 1882 there were in India twenty jute mills employing nearly 20,000 people. Of these mills eighteen were in Bengal and seventeen in the immediate vicinity of Calcutta. The industry was even more localized around Calcutta than was the Cotton industry around Bombay. The first jute mill was started by a European and the industry remained always mainly in the hands of Europeans. With the growth of the export trade in raw jute, the jute pressing industry had also begun to acquire importance in Bengal.

In India jute manufactures remained an industry almost completely dominated by British, more particularly

Scottish, businessmen right up to the end of the Second World War. Among all the directors of jute mills listed in IIYB, 1911 (First Issue), we find the name of only one Indian, viz. Luchmi Narain Kanoria, and he was on the board of directors of the smallest jute mill in existence, the Soorah Jute mills Co. Ltd., with net fixed assets of Rs. 785, 357 and 175 looms on 31st December, 1910. All the other jute mills were controlled by the big British or European managing agency houses, such as Andrew Yule and Co., Bird and Co., F.W. Heilgers and Co. All the companies which were formed after 1900 were rupee companies promoted by British or European managing agency houses located in India. It is difficult to find out the sources of their capital, but one can guess that most of it must have come from British businessmen, Officials and military men.

In view of the relative simplicity of processes involved in jute manufacture and the recognized monopoly India had in raw jute production, the almost complete absence of Indian enterprise on the manufacturing side seems mysterious. It is not enough to say that enterprise was deficient among Bengaless or that Marwaris were interested only in trade; for after all, many of the Parsi and Gujarati industrialists on the other side on India had made their money in trade and then invested in industry. Why was that process not repeated in the jute industry before the First World War?

Part of the explanation lies in the fact that jute was pre-eminently an export commodity both in its raw and in its manufactured state. Unlike cotton however, it was not the raw material for a consumer good the demand for which already existed. The market for jute manufactures had to be sought out, and this search could be made only by businessmen who had an intimate contact with the export trade. The export trade in Bengal had almost entirely passed out of the hands of the Indians. The size of the mininum viable unit in the jute industry also deterred the Indians form entering the industry.

The Europeans in eastern India controlled the export and import trade in most commodities, they controlled river transport and coastal shipping as also the railways. The exchange banks were under exclusive European control. Some banks under

Indian control came up in the wake of the Swadeshi movement but they did not have the capital or connections to challenge the supremacy of the European banking.)

II. European domination in Jute industry.

In the jute trade itself, European (and American) businessmen were involved at almost every stage from the buying of jute from the peasant up to the shipping of Jute and jute fabrics to foreign countries. Long after Dundee had ceased to be the centre of jute industry, London continued to be the entrepot for raw jute and the arbiter in the matter of standards for raw jute and jute fabrics, In the internal trade in jute, the Europeans were the dominant element as soon as one left the villages and came to the big markets such as Serajgunj, Narayangunj, Or Calcutta. The Europeans were organised with trade associations at every stage. There were the Calcutta Jute Dealers' Association, Calcutta Jute Fabrics Brokers' Association, Calcutta Jute Fabrics Shippers' Association, Baled Jute Shippers' Association (which was renamed Calcutta Baled Jute Shippers' Association in 1926), Calcutta Baled Jute Association, and the Indian Jute Mills Association (Indian Jute Manufactures Association until 25 July, 1902), The Indian Jute Mills Association (IJMA) had representatives in many of the associated organizations, such as the Jute Fabrics Brokers' Association.

The ties which linked the members of all these different organisations to one another and to high officials of the government before the First World War were those of a common interest (with some conflicts which could be readily reconciled in a growing

market) , a common language , and above all, a common social distance from the Indians among whom they lived. The government was interested in increasing railway revenues from the traffic in jute; the merchants and the mill-owners would have no difficulty in approaching the officials of the Government, particularly when they were concerned with directly productive departments such as agriculture, commerce and industry, or railways. If there was a shortage of wagons for jute, a simple meeting between the committee of the Indian Jute Mills Association and a high official of the railway concerned would be enough to remove the shortage. If there was a difficulty about the space for storage of jute in the dock-yards or jetties, another meeting with the official concerned could be arranged (I J M A usually had a representative on the Calcutta Port Commissioners). In the face of such recognised mutuality of interests, no formal discrimination against Indian merchants was called for.

The quasi homogeneous nature of the interests controlling trade in raw jute and jute manufactures did not depend only on the formal associations; many of the firms involved were as interested in the shipping of raw jute as in the manufacture of it. In addition, Andrew Yule and company floated two steamer companies to carry jute, tea and other cargo from eastern Bengal and Assam when their tea output and output of jute mills grew.

The European jute mill owners had, of course, no direct control over the output of jute, on which their prosperity and the prosperity of the trade in raw jute depended. They were continually concerned about expanding this output. They urged the Government to try to extend the area of jute cultivation and to increase the average yield of jute ; if necessary, the finances might be found by imposing a small export tax on jute.

In India was concerned, the Calcutta jute mills did not really have much cause for worry. The area under jute cultivation was quite sensitive to price, particularly to its price relatively to that of rice, since jute and rice were competitive crops so far as land use was concerned. Further, although the area under jute seems to have reached a pre-war peak in 1907-8, the actual output was higher in 1912 - 13. Finally, the consumption of raw jute by mills in India increased almost steadily from 2,248,000 bales (1 bale = 400 lb) in 1899-1900 to 4,459,000 bales in 1909-10, and then, with a break in 1910-11, and 1911-12, rose again to exceed previous records.

The Calcutta jute mills did not have to interfere with either the jute trade or the position of the cultivator in order ^{to} ~~to~~ get their raw material cheap. The cultivators were not organised into any association, there was hardly any co-operative movement among the cultivators of eastern Bengal, and the prices they obtained were entirely outside their control. But in 1914 we find the IJMA protesting against the proposal of the Collector of Dacca to lend Rs.250,000 (Rupees *Two lakhs fifty* .. thousand only) to the ryots' of certain districts of Dacca to help ride them over the crisis caused by a disastrous drop in the price of jute, (The drop itself was due to the sudden cessation of more than 50% of the exports of raw jute because of Britain's entry into the First World War). The main objection of the Committee was that such loans would enable the " ryots' to hold on to their jute and would create the impression that the government would come to their aid if prices of jute fell below certain limits. After the protest by the Committee, which was communicated through the Bengal Chamber of Commerce, the Government of Bengal decided to reduce the amount of the loans to Rs.125,000, (Rupees *One lakh twenty* .. five thousand only).

III. Jute Industry before First World War.

The Calcutta Jute Mills had to face some problems other than conflict of interest with the cultivators before the First World War. There were first of all problems of transport; the railway system in eastern India seems to have been extremely strained from the end of the nineteenth century, and the jute trade had to fight with other interests, such as the Coal trade, for the allocation of wagons. But the mills generally had an edge over unorganised interests because of their ability to convince the right people with the right arguments. IJMA generally had an agreement with the steamer companies about the terms and rates for transporting jute. Some times the agreement broke down, and then the individual mills had to arrive at separate agreements with the steamer companies. But this was rather an infrequent occurrence. Presumably, the ability of the mill owners, to act as a body, the common interest of some managing agents in both jute and steamer boats, and the competition from the railways decreased the probability of breakdown of agreement to a large extent. There were also occasional disagreements with the shippers of jute fabrics and other interests connected with the trade.

But in the face of all these conflicts, IJMA formed in ~~1884~~ as an association of the jute mills, had one great strength, its ability to speak and act as a body. The most concrete expression of such unity was the short time agreement. After a failure of price fixing agreement, to stabilize prices in 1885, the first short time agreement was arrived at by the IJMA on 30 December, 1885. This agreement among mills took various forms, including the shutting down of given percentages of looms and spindles, closing the mills for specified number of days, working the mills for a certain maximum

number of hours, and so on. An interesting part of the agreement was that mills or their managements agreed not to expand their production capacity in any way during the validity of the agreement except when specific permission was given. This was thus an attempt at controlling not only production but also investment in an expanding market. Even when the productive capacity of jute mills in India was on the increase, the problem of unused capacity recurrently arose, since the demand for jute goods fluctuated from year to year depending on the volume of world trade. The persistence of surplus capacity is also attributable to some extent to the quasi-monopolistic organisation of the jute mills. IJMA generally tried to maintain high profit levels by working shorter hours. The earliest instance of a short time arrangement was in 1886. It is remarkable that the working time agreement was successful for most of the period under consideration. The management committees generally recognized that the working time agreement was the most important item - on which a decision had to be made. Thus, within the limits imposed by the entry of new comers, the IJMA did operate as a quasi-monopolistic body for most of the period. Thanks to the quasi-monopolistic organisation of the industry, profit ^{rates} ~~tests~~ of 60 to 70 percent were not uncommon in this industry. The number of hours per week by mills before the First World War generally fluctuated between 75 and 90, but it went down briefly in 1910-11, to about 48 hours. In the later period many of the mills failed to adhere to the short time agreement, since those mills which had brought large quantities earlier at rather high price found it difficult to curtail production by curtailing working hours; but the aggregate production of all the mills taken together was effectively curtailed and the gunny market again looked up.

The growth of the jute industry during 1980-95 was reflected in the immense increase in the exports of jute manufactures from India. The jute industry was not able to rely on the home market to the same extent as the Cotton industry and there was a close relation between the growth of this industry and the progress of the exports of jute manufactures. The progress in the jute industry cannot be said to have been as continuous. Jute, for more than Cotton, is a fluctuating crop, and the demand for the products of the industry is perhaps not so stable as the demand for cotton goods. But the jute manufactures were a highly organized body and the periods of depression or slackening of demand were generally met with by an all-round short time, as discussed already. Another notable fact in connexion with the growth of this industry was that the rise in the number of separate mills or companies ~~were~~ was remarkably small as compared with the growth in output or the number of hands employed. This can be seen from the following table :-

JUTE MILLS, 1880 - 95.

Sl no :	Particulars	0 1879-80	0 1884-.50	0 1889-90	0 1894-95.
1.	: Number of mills...	: 22 :	24 :	27 4 :	29
2.	: Persons employed..	: 27,494 :	51,902 :	62,739 :	75,157
3.	: Numbers of Looms..	: 4,946 :	6,926 :	8,204 :	10,048
4.	: Number of Spindles..	: 70,840 :	1,31,740 :	1,64,245 :	2,01,217

Out of these 29 mills in 1994-95, 26 (and these all the larger) were in Bengal, centred round Calcutta.

The growth of the jute industry during 1895 - 1914 was unmarked by any special feature except its rapidity. The picture of growth for the above period is represented below :

Jute Industry, , 1895 - 1914.

Sl no : Particulars	: 1895-96	: 1901-02	: 1907- 08	: 1913-14
1. : Number of Mills..	: 28 :	36 :	54 :	64 :
2. : Persons employed..	: 78,114 :	1,14,795 :	1,87,771 :	2,16,298 :
3. : Looms ...	: 10,169 :	16,119 :	27,244 :	36,050 :
4. : Spindles ..	: 2,14,679 :	3,31,382 :	5,62,274 :	7,44,289 :

The old tendency for the number of mills to increase in a much smaller proportion than the number of hands, looms and spindles is still marked, but not to so great an extent. Here another interesting feature is that the number of looms and spindles has increased in a much greater ratio than the number of hands employed. This very possibly shows economy of labour, by the introduction of better machinery or on account of the management being on a larger scale than before. The growth of the industry was not so rapid during 1895-1900 on account of the prevailing famines, though these did not directly affect the industry, they did so indirectly by stopping the export of the food-grains and other raw agricultural produce out of India and thus diminishing the Indian demand for gunny bags. The industry also suffered a few periods of depression, such as the one in 1905- 06. The growth of the jute mills took place mostly around Calcutta, and the extent of the industry outside this area was insignificant. The Bengal industry possessed a great advantage in being near the source of the supply of raw jute, for Bengal had a monopoly of jute. During this decade, however, competition was growing abroad, especially in Germany and the United

States. But this did not interfere with the growth of of the Indian industry, and side by side with a large increase in the exports of raw jute the exports of jute manufactures were also increasing rapidly.

The profits of individual mills depended to a large extent on the management of stocks of raw jute and of jute manufactures, Prices of jute varied very greatly between the immediate post-harvest months and the immediate pre-harvest ones, and they also varied enormously from one year to the next. Under the circumstances, the ability to buy raw jute at the right times and in the right quantities was the most important factor in the determination of projects of individual mills and of groups of mills. So, the mills were extremely concerned about the reliability of the annual jute forecasts made by the Government of Bengal. For the same reason, stability in the jute trade was also crucial for the interests of the jute mills. But so long as the trade was primarily in the hands of Europeans, the mills seem to have regarded some speculation as entirely healthy.

The jute industry had an almost unbroken record of prosperity from 1895 onwards, the rates of dividends on the face value of Ordinary shares went up to 25% in boom years such as 1906 and 1907, for good companies, such as Budge - Budge (managed by Andrew Yule), Howrah (managed by Ernsthausen Ltd), Fort Gloster (managed by Kattlwell Bullen), Standard and Union (both managed by Bird and Company), the average rate of dividend exceeded 12% for the years. From 1901 to 1910. IIB, 1911 (P.68) was quite optimistic about the profitability of the industry, in spite of the liquidation of Seebpore
~~sub-para~~ Jute company and the temporary depression of the industry.

The estimates of fixed investment in the jute industry show three peaks in the nine years from 1905-06 to 1913-14, with

with no distinct rising trend (although investment was highest in 1913-14, in either real or money terms),

This can be seen from the following figures.

Year.	Gross value of real investment -	(Rs., ¹⁰⁰⁰)
1905-06	204.65	
1908-09	200.90	
1913-14	283.13	

It can be rightly said that this pattern of expansion was due to the fact that the managing agency firms in Calcutta controlled the expansion more or less as a group, thus, the capacity would be built up to the point where it was just a little more than the demand that was foreseen and then a period of adjustment would follow, until the demand again outstripped the capacity. But the pulsating pattern was also due to the fact that jute mills came in lumpy units; it was often difficult to expand the capacity of older units because of lack of space, or because too much had to be spent on redesigning the buildings; on the other hand, new units had to have a minimum capacity. Between 1896 and 1900, ten jute mills were added: of these one (Delta) was reconstructed out of an old mill (Serajgunge), one (Gordon Twist mill) was absorbed by one of the new companies (Anglo Indian), and one (Arathoon) went down in the crisis of 1910-11, along with ~~Sud~~-para. Of these ten, Anglo-India was registered in the U.K. and Gondolpara in France, the rest were registered in India. From 1901 to 1908 another nine mills were added to the industry. Of these one was an American mill, promoted by a former manager of the group of mills under Thomas Duff and Company. While the new units were being floated, substantial expansion was also taking place in the older units.

The investible fund for most of the mills came from investors resident in India; of the estimated nominal capital

capital (equities plus debentures) of £10 million invested in the jute industry on the Hooghly in 1909, about £28 million was invested in eight companies registered in the U.K., but this later amount had mostly been invested before 1900. A large proportion of the initial capital probably came from the managing agents themselves. Some companies also found practically all the money needed for working capital in this way ; but since the substantial volumes of Working Capital regularly went up after the time of the jute harvest and went down a little before the next harvest, it was less costly to borrow the money from the banks.

IV.
The Jute Industry, 1914-29.

The First World War greatly strengthened the position of the Indian jute industry. Before the war more than half of the raw jute produced in India was exported to foreign countries, particularly those of continental Europe and the U.S.A.. In most of these countries the industry had been built up by imposing import duties on manufactured jute, while raw jute was imported duty-free. The U.K. took between a quarter and a third of the exports of raw jute from India. So the cutting off of the continental markets, particularly Germany and Austria-Hungary, meant a drastic drop in the demand for raw jute, the shortage of shipping aggravated the situation and the prices of raw jute collapsed.

The divergent movements of the prices of raw jute and jute manufactures during the war are quite evident from the figures in Table below (Table 2.1). The mills on the Hooghly had practically a captive supply of jute, and they also were monopolists, ~~Table 2.1.~~ as far as jute manufactures were concerned.

Table 2.1.

Prices of Raw Jute and Prices of Gunny Bags.

Sl no :	Year	Prices of Raw Jute (Calcutta).			Prices of Gunny Bags (Calcutta).		
		Rs.	a.	p. :	Rs.	a.	p..
1.	1911 - 12	55	0	0 :	36	0	0
2.	1913 - 14	93	0	0 :	42	8	0
3.	1915 - 16	62	0	0 :	43	0	0
4.	1917 - 18	53	0	0 :	68	0	0
5.	1918 - 19	95	0	0 :	58	0	0

Source : Government of India, C.I.S.D : Statistical abstract for British India from 1911 - 1912 to 1920 - 21.

~~as far as jute manufactures were concerned.~~

The beginning of the War saw a weakening of the demand for jute manufactures for peaceful purposes, But as war, was intensified the demand for sandbags, canvas, cornsacks, etc. more than compensated for the fall in civilian demand. The mills obtained cheap labour which had been released by the stoppage of railway construction and other large public works owing to the war, They could thus operate an eighty hour week for most of the war period. On account of prohibitive freights and the difficulty of obtaining supplies of machinery and stores, the likelihood of new competitors coming into the field was made extremely remote.

As a result the jute mills made very large profits during the war; it was calculated that the rate of net profits (excluding interest) to paid - up capital was 10 in 1914, 58 in

in 1915, 75 in 1916 and 49 in 1917. The dividends declared during these years were also very high by any standard. But because of shortage of shipping and because of the fact that the whole engineering capacity of the U.K. was devoted to war work, there was very little expansion of the capacity of mills during these years. This is evident from the figures of real investment in the jute mills and the figures of looms and spindles in jute mills in India. The figures are shown in Table 2.2.† ~~Page 5~~.

Table 2.2: An approximate measure of gross fixed investment in the jute industry in Bengal.

Sl no :	Year :	Estimated Gross value of real investment in Jute industry (Rs. '000). :	Remarks :
1.	1914 - 15	148,90	:
2.	1915 - 16	135,95	:
3.	1916 - 17	121,45	:
4.	1917 - 18	63,21	:
5.	1918 - 19	52,36	:
6.	1919 - 20	101,03	:
7.	1920 - 21	148,59	:
8.	1921 - 22	228,21	:
9.	1922 - 23	110,97	:
10.	1923 - 24	118,04	:
11.	1924 - 25	83,78	:
12.	1925 - 26	70,43	:
13.	1926 - 27	57,04	:
14.	1927 - 28	77,09	:
15.	1928 - 29	125,23	:

Source : Private Investment in India, 1900 - 1939, A.K. Bagchi (1972), P/273.

The war enabled the Indian Jute mill industry to have an edge over its competitors in other countries, and to amass huge profits. But it also ended the absolute control of the jute trade and industry by Europeans. The jute mills had already been concerned about the speculation in jute carried on by Indian traders (mainly Marwaris) just before the war. The Committee of the IJMA had submitted a draft of a Bill to the Government of Bengal aimed at suppressing the speculation in the ' bhitar bazar ', but the government rejected the proposal as impracticable. However, after the war IJMA had to consider the question of the ' futka ' market, or ' bhitar bazar ', practically every year; the falling off of demand for jute fabrics was often blamed on the operations of the futures market in jute and jute goods.

Indians seem to have captured during the war a large part of the Capital of the jute mills. ~~The explanation is not that the jute mills.~~ The explanation is not that Europeans were keen to sell their shares in the companies concerned, for jute shares continued, to carry very high dividend well up to 1926. One plausible explanation is that during the war a large proportion of the British businessmen of Calcutta were either out in the front lines or engaged in other war work.

Along with the European associations for different levels of the jute trade, there now grew up corresponding Indian associations. The Bengal Jute Dealers' Association, the East India Jute Association, the Halkhola, Baniyas Sabha, and the Indian Jute Balers' Association, and so on. The end of the war also saw the entry into the mill industry of the first Indian-managed mills, viz. the Birla Jute Manufacture and Hukamchand Jute Mills Ltd.

~~IJMA~~ followed.

MA followed the policy of controlled production and expansion of the jute industry even after the First World War. The mills reached an agreement in 1921 to work only 54 hours a week and this was observed throughout the twenties. The world demand for jute manufactures was expanding during the twenties; countries such as Australia, the U.S.A., the Argentina, Cuba and New Zealand were importing larger quantities of gunny bags and gunny cloth. Naturally, both the output of jute and the capacity of mills continued to expand, although the expansion of capacity by members of IJMA was subject to restrictions, firms outside the Association were free to set up new mills or expand their capacity. Since the profits of and dividends declared by the established jute mills were very high, and since Indians had by the end of the war become familiar with the jute trade in all its aspects, it was natural that new mills should be established. Real values of annual gross investment in the jute industry in the 1920s were, if any thing, lower than during the prewar years. This is shown in Table 2.3.† ~~2.3~~ †.

Table no. 2.3: Real values of annual gross investment in the jute industry.

Sl no:	Year	Real value of investment (Rs. '000).	Remarks
1.	1913 - 14	283.13	
2.	1920 - 21	148.59	
3.	1921 - 22	228.21	
4.	1922 - 23	110.97	
5.	1923 - 24	118.04	
6.	1924 - 25	83.78	

Source : Ibid.

But because of the limpy nature of investment in jute mills, as before the war, expansion led to problems of over-production of jute fabrics which were aggravated by wide fluctuations in the prices of ~~jute~~ (raw jute). Since many mills bought very large quantities of jute in advance, they found it difficult to cut their own prices if they had bought most of their jute dear.

Although the total exports of jute manufacturers did not in fact fall much until the onset of the depression in 1929-30, they did not grow either; furthermore, the profits of many mills had been badly affected in some years by fluctuations in jute prices. The value of exports is shown in Table 2.4 ~~also~~ as below,

Table 2.4:

Exports of jute manufactures from India.

Sl no :	Year	Total value of jute manufactures exported (Rs. '000):	Remarks
1.	1919 - 20	500,155	:
2.	1920 - 21	529,947	:
3.	1921 - 22	299,957	:
4.	1922 - 23	404,942	:
5.	1923 - 24	422,836	:
6.	1924 - 25	517,666	:
7.	1925 - 26	588,398	:
8.	1926 - 27	531,809	:
9.	1927 - 28	535,643	:
10.	1928 - 29	569,049	:
11.	1929 - 30	519,268	:
12.	1930 - 31	318,945	:

Source : Ibid, P/280.

With the coming of the World depression around September, 1929, World agriculture and consequently the demand for both raw jute and jute manufactures declined drastically.

The coming of the depression accentuated four problems which had already been faced by the mills associated in the IJMA. The first was the problem of reaching an agreement about hours of work and the expansion of capacity between the stronger and weaker members of the Association, and even more, between the new mills and the member mills. Even in years of expanding demand, IJMA had kept the 54-hour week and the agreement about non-expansion of capacity, except under special permission. In 1928, the mills secured large profit margins because of the limitation of production, but then serious questions were raised about the wisdom of the policy when it was found that continental mills were expanding their capacity, and that new mills were coming up. As a result the Committee of IJMA decided in 1928 to allow mills to work 60 hours instead of 54. The restriction on working hours which had been prevalent since April, 1921 (54 hour week) was given up on 1st July, 1929 (60 hours week). But the change in policy was ill-timed as the World-wide depression very soon led to a sharp decline in the demand for both raw jute and jute manufactures. The agreement to work 60 hours lasted from 1st July, 1929 to 30th June, 1930, only. The rate of profit in the industry declined as a result of decline in demand. Between 1930 - 31 and 1933-34 there was, in fact, a decline in the number of mills, in spindleage and loomage.

In 1928, IJMA had to allow two mills, Waverley and Craig, set up during the war and managed by Begg, Dunlop and Company, to extend their capacity by 250 looms before they would agree to join the association.

With the onset of the depression, the problems of reaching working agreements between new mills and old mills became even more acute. The new mills had mostly been set up during the era of very high prices for capital goods, and did not have the huge reserves which the older mills could fall back on. IJMA went back to working for 54 hours per week after 30th June, 1930, in an effort to stop the fall of prices; from 1st October, 1930 to 28th February, 1931, the associated mills further agreed to work 54 hours but to close down for one week per month, and from 2nd March, 1931 they agreed to work only 40 hours a week and keep 15% of their looms sealed.

It was natural that the new mills should find it unprofitable to abide by the agreement, and in 1931 two mills broke away from IJMA, because the latter would not grant them special permission to work longer hours. The existence of the Association itself was threatened, it had less influence on total output than before, and the restriction scheme seemed to hurt only the member mills, the jute industry probably reached its worst state in 1932, even though stocks of jute manufactures on hand were reduced. Ultimately in May, 1932, after the intervention of the Governor of Bengal, an agreement was reached between the member mills and the mills outside IJMA. The Association mills agreed to stick to the previous arrangement of working 40 hours a week with 15% of the looms sealed. The other provisions of the agreement were :-

- a) that outside mills would work 54 hours a week with their full complement of machinery,
- b) that the Agarpara Mill would be permitted to increase the number of its looms by 64,
- c) that no other mill should increase its capacity during the currency of the agreement,

d) that the Premchand Jute and the Sree Hanuman Jute Mills (both under Indian management), which would continue to be the members of the Association, would be given the privilege of working with their full complement of machinery for 54 hours a week during the currency of the agreement and that IJMA would be at liberty to consider a similar claim from other mills of the association provided that the privilege did not affect more than 4% of the total number of looms in mills within the Association, including the Premchand and the Sree Hanuman Jute Mills.

These agreements seem to have bettered the position of the Indian Jute manufacturers as a whole, and from 1933 onwards there was an improvement in the profits of the industry, with a break in 1937 - and 1938. The agreement is remarkable in two respects; it shows how side payments can be profitably offered by members of a coalition to observe certain rules of the game. The agreement also shows the usefulness of the government as an arbiter in bringing about monopolistic arrangements. The success of the working time agreements of IJMA was to a large measure made possible by a low value of the short term elasticity of demand for jute.

The depression beginning in 1929, hit the jute economy of Bengal when it was riding a high tide. The class to suffer most severely was that of the cultivators of jute. The index number of the price of raw jute fell from 100 in 1928 and 95 in 1929 to 63 in 1930 and to 49 in 1931. It continued to decline still further till it reached the level of 39 in 1934. The acreage under jute which also had reached very high figures during the years 1926 - 27 to 1930 - 31 declined suddenly to a very low level in 1931 - 32 and 1932 - 33 and made only a gradual recovery in later years. The situation of the peasant was so serious that the Govt. of Bengal appointed Committees to

enquire into the jute problem in 1933 and again in 1938. Both committees paid special attention to the plight of the cultivator and considered how the growers of jute could be better organised and how cultivation of jute could be regulated. However, they also passed under review the condition of the jute mills.

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The jute mills were able from 1st ^{November} ~~November~~, 1934, to release 2½% of the 15% of looms sealed earlier; there did not seem to be any immediate adverse effects on prices, and profits of jute mills appeared to improve in 1934 and 1935; there was a fall in prices of manufactures in 1936-37 and the agreement between members of the association and outside mills about working hours broke down. Progressively larger numbers of looms were released until, after 31st March, 1936, all looms were released from restriction. The number of hours worked also went up. As a result prices fell, and in spite of total foreign demand responding well, profits of the mills were affected; they declined in 1936 and further in 1937. To check a further imbalance between supply and demand, the Government of Bengal promulgated an ordinance in September, 1938, by which the working hours of all jute mills were restricted to 45 hours per week. Under the threat of legislation by the Government of Bengal, all the mills reached an agreement under the aegis of IJMA; under this Agreement, with the exception of the smaller units, all mills were in effect restricted to a 45 hour week at a maximum. From the end of 1938, war demand began to exercise a strong influence on mill production; but by the end of the 1930's, it was obvious that under normal conditions the capacity of the world jute industry was in excess of the world demand for jute manufactures, since every attempt at complete relaxation of controls on total production in the Indian industry had led to unwanted accumulation of stocks, (this happened even in 1939, a few months before the out break of the war).

The second problem which the depression aggravated was that of the relation between the jute future market or ' ~~future~~

'futka bazar' and the jute mill industry. The question of imposing legal restrictions on futures trading was raised by IJMA whenever raw jute prices seemed too high in relation to the prices of manufactured goods, but the problem did not seem to require any serious action until the years of the depression. An informal meeting of the jute interests was held in 1932 under the auspicious of the Bengal Chamber of Commerce, to consider the question of the futures market. The interests attending the meeting were more or less divided between those on the Indian side and those on the side of the Europeans. On behalf of the Indian traders N. R. Sarkar, President of the Bengal National Chamber of Commerce, urged the necessity for a futures market in jute to iron out discrepancies between seasonal supply and year - long demand. D. P. Khaitan complained that standards were tampered with by the mills so that rejections were the highest standard of jute being sold. On the European side, Mr. Luke, on behalf of the Calcutta Jute Dealers' Association, said that before the birth of the 'futka' market, it was nearly always possible to buy jute in the 'mofussil' and to sell it in Calcutta at a price which more than covered the cost; but since the 'futka' market had grown up on such a large scale it had become impossible to buy in the 'mofussil' at a price near the parity of the Calcutta price. This particular complaint seemed to be vindicated by the first report on the marketing of jute published by the Indian Central Jute Committee. It was found that Calcutta merchants, when sending price information to their mofussil agents, also included the futures price, and this in turn influenced the prices paid by the 'kutchas' balers. It was further stated; "European balers, on the other hand, carry on business for the most part in accordance with the movements of genuine supply and demand, and are seldom entirely guided by 'futka' which they do not regard as a true barometer of trade conditions. It is not clear what 'genuine supply and demand'

means in this context, but presumably it means an estimate of the annual demand for and supply of jute manufactures; this latter estimate could probably be formed with greater certainty by dealers in close contact with the members of IJMA than by dealers who operated freelance.

The third problem, which had caused some public discussion before the depression, but became almost the single most controversial economic problem in Bengal throughout the thirties, was the relation between the mills and the growers of the jute. Whereas the mills were organized into a highly effective cartel, the peasants operated under conditions of atomistic - though far from perfect - competition. There was some unofficial propaganda whenever it was felt that the growers were not getting their due share of the returns of the industry. But after the disastrous fall in jute prices in 1930, vigorous propaganda was carried on to get the cultivators to restrict ^{their} ~~these~~ jute areas drastically. This propaganda seems to have had very little effect; the area under jute fell by nearly 50% between 1930-31, 1931-32, but went up by 25% in 1933-34, and maintained the same level in 1934-35, in spite of the fact that the price of raw jute continued to decline in 1932, 1933 and 1934. The Bengal Jute Enquiry Committee of 1934 failed to arrive at a consensus about the proper methods of stabilizing the incomes of the consumer. The Government of Bengal compromised by instituting from 1935 onwards a scheme for voluntary restriction; cultivators were told to cultivate given fractions of the areas shown by them in previous years. But in spite of some apparent success, it was obvious during the crisis of the years from 1936 to 1938 that any favourable effects must be attributed to factors such as a decline in prices in the previous year, or unfavourable weather conditions. The second Bengal Jute Enquiry Committee, reporting in 1939, recommended compulsory restriction, and the Government of Bengal

instituted a system of licensing of jute acreage under the Regulation of Jute Area Act, 1940.

Looking back over this experiment, it seems clear that the government could not possibly succeed in what they were trying to do, first by propaganda, and then by some degree of compulsion, that is, to stabilize the incomes of the cultivators. In the first place, the staff of the Department of Agriculture was quite inadequate for the work of instruction and persuasion that might be necessary. The Government of Bengal was not prepared, before the elected provincial government came in 1937, to incur the small increase in cost which maintaining an adequate organisation for compulsory crop restriction would involve. In the second place, any rational peasant could see that it would pay him to violate the government's instructions and increase the area under jute cultivated by him, if in fact jute prices went up because other peasants restricted their crop according to governmental instruction.

In the third place, even in normal years, the cultivator had to pay the middleman a large commission in one form or another, and an increase in prices in the Calcutta market was reflected in the prices obtained by the peasant only in an attenuated form. The commission paid in the first instance to the middleman was probably exaggerated; figures of 50% of the final price paid to the middleman were often quoted, and it was also believed that the share of the middleman in the revenue was higher in the case of jute than in the case of other agricultural products. The first Marketing Enquiry of the Indian Central Jute Committee, however, found on the basis of several case studies that the prices paid to growers of jute in October, 1937 were between 76.4% and 82% of the Calcutta landed

price. By contrast, the producers of wheat and linseed received between 58.6 and 83.2%, and between 67.7 and 91.2% of the consumers' price respectively. However, the handling charges of the middleman were often fixed in money terms, and the costs^{of} transportation by rail and steamer were relatively inflexible during the years of the depression, and hence the percentage paid by the grower was higher in the years of low prices.

More serious than this was the fact that for various reasons, the grower of jute had little holding power. East Bengal had relatively poor rail communications, and the jute growers had to try to transport the jute to the big markets before the streams dried up after the rains, also the storage facilities available to the grower were negligible; the risk of fire in the case of jute was great, and so was the loss of value because of loss of colour owing to bad storage. But an overriding factor was the need of the cultivator, who generally had a very small plot or owned no land at all, for cash. In the first marketing enquiry of the Indian Central Jute Committee it was found that " in the marketing season 1937-38 growers in East Bengal disposed of two thirds of their jute during the months of July, to October. In spite of the fact that river communications, which in this area form the most convenient means of transport, are adequate during these months, it was found that ^{38%}~~28%~~ of jute had been disposed of by the middle of September ". (Indian Central Jute Committee : Report on the marketing and transport of jute in India, First Report, P. 65).

The cultivator was generally heavily indebted, and the degree of indebtedness had probably increased during the years of the agricultural depression, since the money lender was often also the

local trader, his power over the cultivator was considerable. The revenue demands of the state or the landlord also coincided in time with the harvesting of jute, which was the main cash crop. All these factors combined to compel the cultivator to sell his jute crop as soon as the harvest came in, or even before the harvest if he had borrowed money on the security of the crop.

The fact that the cultivator probably lost more by selling his crop at the harvest time than by selling it through the middle-man is borne out by a comparison of the average harvest prices with the average prices of loose jute in Calcutta, published by IJMA. The (unweighted) average harvest prices of jute in Bengal were as given in column (1) and the (unweighted) average prices of loose jute in Calcutta were as in column (2) below:-

<u>period</u>	<u>(1)</u>		<u>(2)</u>	
	<u>Rs.</u>	<u>8.</u>	<u>Rs.</u>	<u>8.</u>
1911-12 to 1920-21	7	6	9	12
1921-22 to 1930-31	9	7	12	6
1931-32 to 1940-41	5	1	6	12.

It can easily be seen that the prices of loose jute in Calcutta were higher than the harvest prices of jute in Bengal by 32%, 31%, and 33%, for the periods from 1911 - 1912 to 1920- 21, from 1921- 22 to 1930 - 31 and from 1931 - 32 to 1940 - 41 respectively. The cultivator sold most of his jute at the time of the harvest when the price was often the lowest of the year, and he could not generally take advantage of increases in prices occurring later in the year. Allowing for the crudeness of the data and for the fact that the qualities of jute are not specified, it seems that ^{the} ~~the~~ spread between the harvest prices and the weighted annual average of jute prices in Calcutta was on an average greater than the spread between prices in

the ' mofussil ' and in Calcutta at the time of the harvest, as was found by the first marketing enquiry of the Indian Central Jute Committee.

Thus it appears that a large part of the controversy about the stabilization of jute prices was not really about the return to the cultivator but about the division of the gains from arbitrage in jute between the mill-owner and the trader; in a period of falling prices each suspected the other of getting a bigger slice of the profit margin than before. This has a bearing on an analysis of investment in eastern India since a large part of the new investment was directly or indirectly financed by profits in the jute trade. Practically all of the new mills set up by Indians were not only promoted but also largely financed by people who were actively involved in the jute trade.

The Bengal Jute Inquiry Committee (1938 - 40), made an examination of the problems arising out of the basic structure of the industry. The industry had the advantage of Bengal's monopoly of the cultivation of jute, it was highly concentrated around Calcutta and it had a strong, close-knit Association. The mills had used their opportunities wisely to build up an almost impregnable financial position, and were able to give high returns in most circumstances. Consequently, they were content with the established types of products and made no efforts in the direction of diversification of production or of widening their base of activity. Except for two or three years at the end of the twenties and of the thirties the consumption of raw jute by Indian Jute mills was lower than the average of the war years, 1914- 1918 and the jute mills always met the resulting problem by short time, ~~the high~~ working agreements. At the same time, the high returns ensured by the jute mills, their strong economic positions

and restrictive agreements proved immensely attractive to outside capitalists, And in spite of all efforts of the Association, new entrants forced their way in and additions to capacity were continuously made. The number of looms in jute mills increased by 70% percent during the inter-war years while production fluctuated widely with no marked upward trend. As the Bengal Jute Inquiry Committee pointed out, the short time agreements of Association mills produced for them results in stabilization of prices of jute manufactures which were immediately satisfactory. However, they were highly unsatisfactory in the long run because, on the one hand, they limited the possibilities of a permanent and continuous increase in the demand for jute and jute products, and also made the position of the jute cultivator even more vulnerable, and the fluctuations in the prices of raw jute were even larger than they would otherwise have been. Moreover, because of the safe, restrictive attitude no lasting solution for the problems of the industry could be found and there was created a chronic load of overcapacity which meant a permanently higher burden of capital costs for the community.

The depression of the thirties finally raised serious doubts about the flexibility and the level of technical efficiency of the mills on the Hooghly. The jute industry had relied for its markets on the efforts of individual firms overseas; for recruiting men it had depended on its contacts with Dundee. ^{Apprentices} ~~Apprentices~~ came out from the area near Dundee and served as the technical and managerial staff of the jute mills. So long as the mills were riding an expanding market, no attention had been paid either to marketing research or technical research in jute. But with the coming of the depression it was found that the mills had been turning out too much of the coarse goods and too little of the finer varieties in which Dundee had specialized. Over time there had taken place a change of production away from sacking to hessian and from gunny bags to cloth; but both these changes

were relatively simple ones, and had been prompted first by the expansion of the North American market and secondly by the fact that there were usually stiffer import duties on gunny bags than on hessian.

The depression found the jute industry in a critical situation. A sub-Committee was appointed in 1933 by IJMA to look at the question of competition offered by substitutes. It was found that competition from paper bags, 'sisal-kraft', cotton bags and bagging, grain elevators, and fibres such as sisal and hemp had eroded the market for jute to a considerable extent. It was also said that "there is no industry in the world which knows so little about its business as the jute industry". (S.G. Barker, Report on the scientific and technical development of the jute manufacturing industry in Bengal). The sub-committee ~~suggested~~ suggested the formation of an advisory committee in London to look after the problems of jute marketing. Along with this, in 1934, Dr. S.G. Barker, Director of Research, Wool Industries Research Association, was invited out to India to prepare a report on the manufacturing aspects of the jute industry.

Dr. Barker found that the basic processes of jute manufacture were mainly mechanical in nature and had changed very little since the end of the nineteenth century. Many of the machines were very old ; but quite well maintained and adequate for their simple purposes. The very simplicity of the processes and the fact that the supervisors had little scientific knowledge had led to a lack of initiative and technical development. The fact that the mills were completely dependent upon machine makers in the U.K., which did not cater to the specifically Indian needs, contributed to the lack of development of the chemical engineering side. Dr. Barker also found among the technical personnel of the mills a complete lack of knowledge of the Chemical or other properties of the jute fibre

itself. Finally, there was no agency for supplying technical, industrial, commercial or scientific intelligence to the industry. The distance from centres of industry and research in advanced countries created a sense of isolation which led to a complacent attitude among the technical personnel concerned with jute mills.

Dr. Barker's report is a very interesting piece of evidence, showing first that the dominance of the British managerial and technical personnel was not primarily due to the level of their technical knowledge, and secondly that the basic conditions inhibiting any major technical break through independently of the advanced countries applied as much to the foreign controlled sector as to the sector controlled by Indians.

While the jute mills were looking belatedly at ways of improving the methods of manufacturing jute products and of introducing new products (Dundee had already specialized in the manufacture of the finer types of jute goods), the Government of India also made a move to improve the organization of information and research in the jute industry. The Royal Commission on Agriculture in India had already, in 1928, warned against regarding the monopolistic position of India in the jute trade too complacently, drawing a pointed analogy with the case of indigo. It therefore considered ' it most desirable that a Jute Committee which would watch over the interests of all branches of the trade from the field to the factory should be formed '. It suggested that since the export duty on raw and manufactured jute brought in a large revenue (Rs.45 million in 1926-27) for the Govt. of India, the expenditure on additional research and on the promotion of the interests of the trade generally should be met from central funds.

The Government of India did not do anything until 1936, when it announced the formation of the Indian Central Jute Committee,

representing all interests. The functions of the committee would be to undertake agricultural, technological and economic research, the improvement of crop forecasting and statistics, the production, testing and distribution of improved seed, enquiries and recommendations relating to banking and transport facilities and transport routes and the improvement of marketing in the interests of the jute industry in India". The Indian Central Jute Committee was actually constituted in January, 1937. IJMA decided on the establishment of a small research laboratory and an information and statistical department in Calcutta and the appointment of representatives abroad with effect from 1937. Dr. Barker was appointed Scientific Advisor to the Association. The cost of these proposals was not expected to be much more than Rs.1,75,000. The research department of the IJMA collaborated with Indian Central Jute Committee but no remarkable results were obtained from such research before 1939.

: Jute industry after 1939.

During the Second World War the demand for jute revived and profits in this industry overstripped the rate of profit in other Indian industries. By 1942-43 the number of mills rose to 113, loomage to 67,774 and spindleage to 13.75 lakhs. In the middle of December 1939, the jute mills were exempted from the Factories Act to enable them to work 60 hours a week. But this exemption was not taken advantage of by the mills except for short spells.

In the immediate post war period prosperity continued for the first two years. Then came independence and the partition affecting severely the fortunes of the industry. As a result of the partition while the bulk of the raw jute supply went to Pakistan, the jute mills remained in India. The difficulties in obtaining a steady supply of raw materials, the emergence of new competition from jute mills in

Pakistan and elsewhere and the dwindling demand for jute as a packing material - all these created grave problems for the jute industry in the post-independence period. The Korean War (1950), brought about only a temporary spurt in demand and prices.

The installed capacity in the industry has remained practically unchanged at 1.2 million tons, The IJMA agreements have stood in the way of any increase in loomage above prewar level. Working hours have fluctuated as well as the percentage of looms sealed.

The search for substitutes of jute products in packing was accelerated during and after the Second World War by the high prices of jute manufactures. While the index of use of jute in the U.S.A. fell from 100 in 1940 to 83 in 1954, the index for paper rose from 100 to 407. India's relative position has also suffered a decline. In the years immediately preceding the second world war India produced about 60 percent of total world output of manufactured jute, in 1953-54, this share fell to 55% percent. Proportion of exports fell from 89 to 86% percent . Certain varieties of jute products catering to the U.S. market, formerly regarded as India's close preserves came to be supplied by continental and Pakistan mills in the post-independence period.

In 1950, there were 112 registered jute mills in the country with a loomage of 72,161. Of these mills, 101 were located in West Bengal, The total capital invested in the industry exceeded Rs. 30 Crores. Over 3 lakh workers were attached to this industry in 1950- 51.

In the post-independence period, production of jute goods showed an impressive rise from nearly 10.56 lakh tonnes in 1948-49 to

1338 lakh ^{tonnes} ~~ton (tonnes)~~ in 1980 - 81, although the number of mills declined from 113 in 1950 to 75 in 1980. Between 1949-50 and 1980-81 the production of hessian and sacking increased by 38.4% and 41.9%, respectively, although there were wide fluctuations in the intervening years. However, it needs to be mentioned that the industry is presently facing a crisis. The nature of the crisis and reasons behind it are analysed in the following chapter.

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