

# Production and Export Pattern of Jute in The Early 21st Century of Bangladesh

Dr. Mst. Tasqurun Nessa<sup>1</sup>, Md Shahidul Islam<sup>2</sup>

<sup>1</sup> Assistant Professor, Department of Economics, Asian University of Bangladesh

<sup>1</sup> Executive Director of Marketing, Al Hera Machineries

DOI: <https://doi.org/10.51583/IJLTEMAS.2025.1410000123>

Received: 28 October 2025; Accepted: 04 November 2025; Published: 19 November 2025

**Abstract:** Once upon a time, jute was the golden fiber of Bangladesh. The country used to earn the highest amount of foreign currency by exporting jute and jute goods. However, starting in the 1980s, due to lack of proper policy and declining global demand, export earnings from jute fell significantly. Synthetic substitutes were one of the major threats. But currently the situation is totally different because of serious concerns about environmental pollution. Secretary of the Ministry of Textiles and Jute, Lokman Hossain Mia said that the interest of jute product is increasing because people of Western countries including Europe are increasingly using the natural fibers in different industries and in day-to-day life. At present jute is the second largest export earning sector next to RMG of Bangladesh. The sector has an average contribution of 3% in our export earnings and 1% in GDP. Moreover, though RMG sector is the highest contributor in our economy in terms of export earnings, it is to be remembered that 1 Dollar of export earnings from Jute sector is tantamount to that of 4 Dollar from RMG sector since each 100 Dollar export of RMG item requires 55-60 Dollar import of raw materials. Different tables and charts have been used to represent the findings of the study. The data sources have been reported in each table and chart. This study was conducted in the months of April, May and June 2025. In this study I used secondary data published in both printed and electronic sources. This study is descriptive, conceptual and depends on historical facts and figures. Finally, this paper suggests some policies to achieve our ancient fame of golden fiber.

**Keywords:** Bangladesh, Cash crop, Export, GDP, Golden Fiber, Import, Jute etc.

## I. Introduction

Once upon a time, jute was the golden fiber of Bangladesh. The country used to earn the highest amount of foreign currency by exporting jute and jute goods. However, starting in the 1980s, due to lack of proper policy and declining global demand, export earnings from jute fell significantly. Synthetic substitutes were one of the major threats. But currently, the situation is totally different because of serious concerns about environmental pollution and demand for use of natural and less hazardous material in order to reduce carbon emission. Despite the dipping export trend in the international market, jute (including jute goods) is still the second largest export product next to ready-made garments, and currently Bangladesh is the second largest exporter of jute after India.

Bangladesh Investment Development Authority (BIDA) has shown that annual average production of jute is 1 million ton, contribution to Bangladesh's GDP is 1 percent, contribution to Bangladesh's export is 3 percent and it is to be remembered that 1 Dollar of export earnings from Jute sector is tantamount to that of 4 Dollar from RMG sector since each 100 Dollar export of RMG item requires 55-60 Dollar import of raw materials. Most of the crop is cultivated in Faridpur, Jashore, Sirajganj, Bogura, Tangail, Jamalpur and Dhaka districts. The scientific name of the jute is "corchorus spp". It is called the golden fiber of Bangladesh.

## Products of jute

Last year, the Jute Diversification Promotion Centre – operating under the Ministry of Textiles and Jute – had released a list of 282 diversified jute products. The by-products of the jute industry are gunny bags, hessian, carpets, ropes, strings, packing materials, tarpaulins, upholstery, rugs, paper, soft sweaters, furniture, slippers, shoe and cloth, etc. Some pictures of jute plants and jute products are given below.





### Advantage of using jute

1. Jute items are recyclable and it perishes in soil.
2. Jute requires fewer insecticide and fertilizer.
3. Jute leaves are eaten as a vegetable.
4. The color of this natural fiber is lightly golden and shining.
5. It very is responsive to dying and easily takes color.

### The disadvantage of using jute

The jute is responsive to water. Some primary jute items like sacks can perish if it gets wet. Micro bacteria can attack here in the humid climate.

### II. Objective of The Study

Some specific objectives are set for this research. The principal objective of this study is to evaluate production and export of raw jute of Bangladesh. To accomplish this basic objective, following specific objectives which will be covered by this paper are given below.

1. To observe the production of jute.
2. To examine export performance of raw jute of Bangladesh.
3. To provide some possible policies to expand the production, consumption and export of jute for achieving our ancient fame of golden fiber.

### III. Literature Review

Islam and shishir (2021) has found Bangladesh currently exports 282 jute and jute-based goods to around 135 countries around the globe. In FY20-21, Bangladesh's raw jute exports reached \$13.18 crore, which is 6% more compared year-on-year. According to the Bangladesh Jute Research Institute, the country used to cultivate jute in 12 lakh hectares of land in the 90s. The government had set an annual target of cultivating the crop in 7.26 lakh hectares of land in FY20-21, but jute was farmed in 6.82 lakh hectares of land.

Begum, (2016) has shown In the FY 2015-16 (July-February) export of jute goods and raw jute was US\$ 561 million of which jute goods fetched \$470 million and raw jute \$91.34 million. Though export of jute goods is increasing, a significant quantity of export comprises traditional items like hessian, sacking, raw jute and jute yarn which notably add less value. High value added jute goods have huge potential as diversified jute products can add value 10 times more than the traditional one.

Rafiqul Islam (2020) has stated that Secretary of the Ministry of Textiles and Jute, Lokman Hossain Mia said that the interest of jute products is increasing because people of Western countries including Europe are increasingly using the natural fibers in different industries and in day-to-day life. Considering this demand, Bangladesh is producing new diversified jute products. Besides, the effective branding of domestic jute products has been initiated in the international market. Due to these reasons, the export of jute and jute products is increasing steadily. Bangladesh is currently exporting jute and jute products to different countries. Recently

some jute innovations have surprised the jute lovers, among them jute polythene, jute-tin, jute leaf tea are most popular. There is no doubt that if these innovations are properly cared for, they will be able to earn a significant amount of profit.

Rahman et al (2017) specified the future potential of the jute sector in Bangladesh by examining its growth performance, international competitiveness, profitability, and production efficiency using national time-series data of over the period 1973–2013 and farm survey data from 289 farmers from two major jute growing areas of Bangladesh. Results revealed that the jute sector has experienced substantial growth in area, production, productivity, prices, and exports. However, productivity has stagnated during the latter 10-year period (2004–2013), while it grew at a rate of 1.3% per annum (p.a.) during the first 31-year period (1973–2003).

Mirza Shakil (2022) identified that farmers have been regaining their interest in jute cultivation over the past few years as both the price and demand for the golden fibre are rising at home and abroad. With environmental awareness growing worldwide, various countries are increasingly turning to natural fibers in a bid to lessen the ecological damage caused by the use of synthetic fibers, leading to higher demand and market value for jute.

Kazi Saniwar Uddin, (2023) has revealed that Bangladesh is ranked among the top 10 countries in the world in the production of 22 agricultural products. Bangladesh is not the first to produce any product. But the second position is in the production of jute, betel nut, and dry chilies.

Molla et al (2015) has conducted to find out the present scenario of Bangladesh’s jute sector in domestic and world perspective mainly based on secondary sources. The study found that the private sector plays a dominant role in trading of raw jute and also in jute products manufacturing and marketing over the last two decades in Bangladesh. The country accounts for 35% of the total world production and about 90% and 60% of the total world exports of raw jute and jute products, respectively. . Bangladesh Jute Spinners Association (BJSa) has found the pioneer exporters of jute goods in which about 64% of the total jute goods were exported by them.

#### **IV. Methodology**

In this study I used secondary data published in both printed and electronic sources. Moreover, to be more specific, data has been collected based on production, raw jute consumption, export earnings from annual reports of BJMC and BJMA, statistical yearbooks, Bangladesh Bank’s data, newspaper, various books, journals etc. After having the data, these have been checked and verified to make sure that the answer to each objective of the study is found satisfactorily. After that, data has been tabulated and analyzed using descriptive statistics. Different tables and charts have been used to represent the findings of the study. The data sources have been reported in each table and figure. This study was conducted in the months of April, May and June 2025. This study is a descriptive historical analysis.

#### **V. Findings**

As per the secondary data and review of the existing relevant literature, the following findings are discussed with the help of tables and charts.

##### **Global Jute production**

Approximately 3.9 Million MT of jute and jute fibers were produced worldwide and total output volume increased at an average annual rate of 1.8% over the period of 2007-18. The countries with the highest volumes of jute production were India (2.1 Million MT) and Bangladesh (1.6 Million MT) with a combined 93% share of global production (Source: IndexBox). Figure 1 shows the country wise production of raw jute around the world. Both India and Bangladesh enjoyed increased raw jute production from 2008-09 to 2013-14. In 2011-12, India produced 54.28 per cent of the world’s total jute production and Bangladesh produced 44.5 per cent, second next to India (Fig 01).

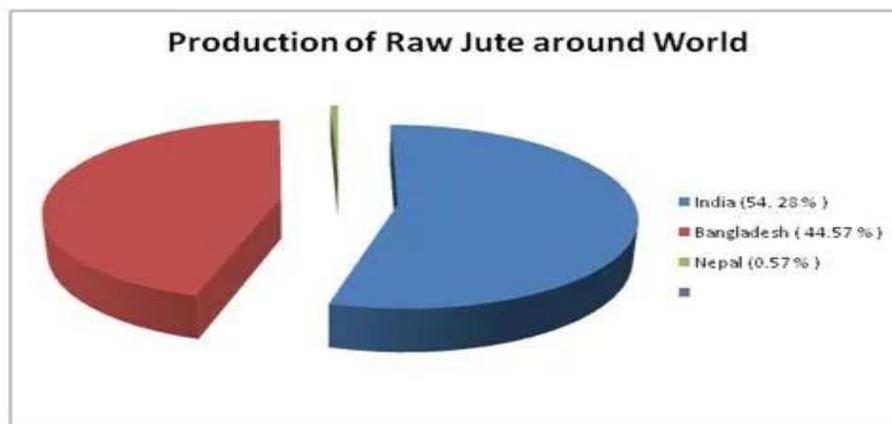


Figure 1: Production of raw jute around world (Source: Indian jute today, 2017)

### **Annual target for Cultivated Land of Bangladesh**

The government had set an annual target of cultivating the crop in 7.26 lakh hectares of land in FY20-21, but jute was farmed in 6.82 lakh hectares of land.

### **Annual target for production of Bangladesh**

Data from the Department of Agricultural Extension (DAE) shows that Bangladesh had set an annual target of producing 82.83 lakh tonnes of jute in FY 2020-21, but the amount of crop cultivated was 74 lakh tonnes.

### **Global Jute Consumption**

The countries with the highest volumes of jute consumption were India (2.1 Million MT), Bangladesh (1.4 Million MT) and Pakistan (0.091 Million MT) with a combined 90% share of global consumption (Source: IndexBox).

### **Global Jute Import**

Pakistan (0.091 Million MT) and India (0.064 Million MT) are the largest importers of jute and jute fibers. The countries share a combined 53% of total imports. Nepal ((41 MT)) took the next position in the ranking, followed by China (31 MT). All these countries together took approx. 25% share of total imports. Jute imports amounted to USD 197 Million in 2018. In general, jute imports, however, continue to indicate a relatively flat trend pattern.

### **Top Jute exporter**

Bangladesh is the largest exporter of raw jute and second largest jute producer in the world. In value terms, India (USD 1.2 bln), Bangladesh (USD 899 mln) and Pakistan (USD 70 mln) were the countries with the highest levels of market value in 2018, with a combined 79% of global jute market share (Source: IndexBox). Bangladesh and India dominate the jute export structure. Tanzania, Belgium, Kenya and Malaysia together made up 13% of total global export. Exports from Bangladesh decreased at an annual average rate of -8.0% from 2007 to 2018. India and Kenya illustrated downward growth (-6.6% and -1.9% respectively) over the same period of time. However, at the same time Malaysia, Belgium and Tanzania attained positive growth rates of 33.3%, 6% and 1.5% respectively. [Source: Global Trade Magazine]

### **Contribution of Jute on export earnings and Bangladesh's GDP**

It is the second largest export earning sector next to RMG. The sector has an average contribution of 3% in our export earnings and 1% in GDP. Moreover, though RMG sector is the highest contributor in our economy in terms of export earnings and employment, it is to be remembered that 1 Dollar of export earnings from Jute sector is equivalent to that of 4 Dollar from RMG sector since each 100 Dollar export of RMG item requires 55-60 Dollar import of raw materials.

### **Export of Bangladesh by Major Commodities**

Jute (including jute goods) is still the second largest export product next to ready-made garments of Bangladesh. Table 1 shows the export of Bangladesh by major commodities from FY 2019-2020 to FY 2021-2022. The export of raw jute is almost the same, but the export of jute manufactured has decreased.

Table 1: Export of Bangladesh by Major Commodities (% of total export)

SL No.	Major Commodities	2021-2022	2020-2021	2019-2020
1	Readymade Garments	85.0	83.4	85.4
2	Jute and Jute Manufactures	2.6	3.6	3.2
	a) Raw Jute	0.5	0.4	0.5
	b) Jute Manufactures	2.2	3.3	2.7
3	Leather and Leather Manufactures	1.9	1.8	2.0

Source: Bangladesh Bank

### **Pattern of jute crops of Bangladesh in the early 21th Century**

In table 2, the amount of raw jute production in Bangladesh has been shown. If we notice, we can see that the output of jute fiber is not the same all over the period. There is a fluctuation in the production of raw jute from FY 2005-06 to 2018-19.

Table 2: Production, export and Export value of jute of Bangladesh

Year	Production ( in lakh bales)	Export ( in lakh bales)	Export value ( in crore Taka)
2005-06	50.00	24.47	977.27
2006-07	65.91	24.43	1016.20
2007-08	68.71	28.71	1033.40
2008-09	51.72	17.50	921.00
2009-10	59.45	15.99	1130.80
2010-11	78.02	21.12	1906.76
2011-12	78.05	22.85	1540.60
2012-13	75.72	20.55	1436.46
2013-14	67.85	9.84	706.04
2014-15	75.01	10.01	816.74
2015-16	87.64	11.37	1174.85
2016-17	88.99	12.18	1187.53
2017-18	93.10	12.97	1225.55
2018-19	73.15	8.25	859.05
2019-20	84.55	8.58	853.05
2020-21	90.91	5.86	659.73
2021-22	70.64	8.01	1093.16

Source: Department of Jute, Ministry of Textile and Jute

The jute production has been increasing from FY 2005-06, then it is decreasing after FY 2007-08. After that, it is again increasing. Here, a fluctuation in the production of raw jute has been noticed in Bangladesh. In FY 2005-06, the amount of jute production was 50.00 lakh bale, and then it is increasing up to 68.71 in FY 2007-08. After that, it has decreased, and finally, it again has increased in FY 2010-11, and the amount is 78.02 lakh bale, whereas, in FY 2014-15, it was 75.01 lakh bale. In FY 2021-22, the amount was 70.64 lakh bale.

Table 3: Raw Jute Export of Bangladesh to Major Countries (Tk. in crore) (Source: Bangladesh Bank)

SL No.	Country	2021-22	2020-21	2019-20	Changes in 2021-22 from 2020-21, (1-2)	Changes in 2021-22 from 2019-20,(1-3)
		1	2	3	4	5
1	USA	28.2	12.6	9.7	15.6	18.5
2	Germany	29.2	14.1	14.3	15.1	14.9
3	U.K.	27.9	24.5	22.0	3.4	5.9
4	Spain	9.9	7.6	6.3	2.3	3.6
5	France	0.5	2.3	1.0	-1.8	-0.5
6	Poland	2.1	3.4	0.0	-1.3	2.1
7	India	613.2	251.3	369.9	361.9	243.3
8	Italy	1.5	0.4	0.1	1.1	1.4
9	Netherlands	16.5	4.9	1.5	11.6	15.0

10	Canada	1.1	0.0	0.0	1.1	1.1
11	Denmark	1.4	0.2	0.0	1.2	1.4
12	Japan	3.6	1.8	1.3	1.8	2.3
13	Australia	1.5	0.7	0.0	0.8	1.5
14	Sweden	3.8	1.8	0.3	2.0	3.5

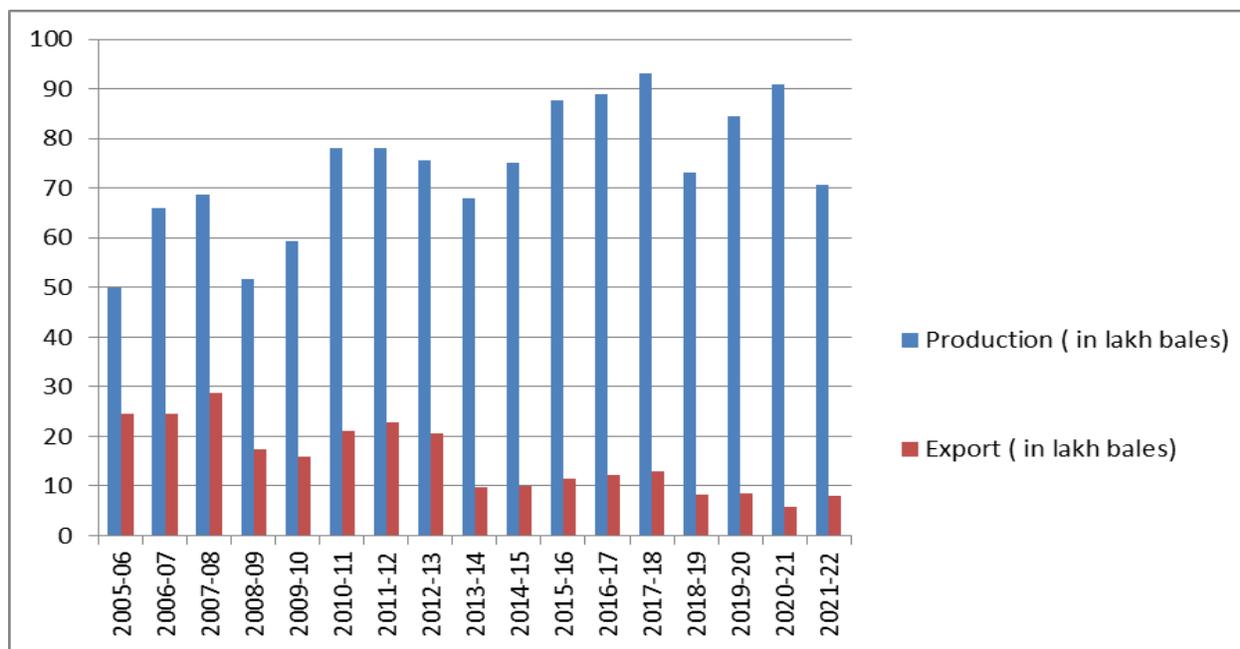


Figure 2: Production, export and Export value of jute of Bangladesh (Source: Department of Jute, 2023)

The export of raw jute by Bangladesh is shown, including its export amount in lakh bales and export value in a crore Bangladeshi Taka. The amount of export by Bangladesh is not the same all over the period. In the fiscal year 2005-06, there were 24.47 lakh bales amounting to 977.27 crore Taka. The amount of raw jute export increased to 28.71 lakh bales in the financial year 2007-08. After that, in the economic year 2009-10, it was drastically reduced to the amount of 15.99 lakh bales. Last year the amount of export was 8.25 lakh bales amounting to 859.05 crore Taka. There was a noticeable fluctuation in the export of raw jute by Bangladesh. Figure 3 presents production, export and Export value of jute of Bangladesh.

**Raw Jute Export of Bangladesh to Major Countries**

Table 3 represents raw jute export of Bangladesh to major countries (Tk. in crore). Here we can see that the amount of exports is increasing.

**Jute seed import of Bangladesh (Around 90% seeds imported from India)**

Bangladesh covers 85%-90% of its annual demand for jute seeds through imports from India. As soon as the jute season hits Bangladesh, farmers become concerned over the quality and timely arrival of jute seeds from the neighboring country, Department of Agricultural Extension (DAE) officials have said. (Islam and Shishir 2021) On the issue, DAE's Deputy Director Dr Surojit Saha Roy said, "Bangladesh will become self-reliant in jute seeds within the next five years. The country imports around 4,500 tons of seeds from India every year.

**The difficulties in monitoring and enforcing the Mandatory Jute Packaging Act 2010**

The Jute Packaging Act, 2010, is a law in Bangladesh that orders the use of jute bags for packaging a variety of products (17 products) to reduce plastic use and support the local jute industry. The act, which became effective in 2014 after the Mandatory Jute Packaging Rules were approved in 2013. Non-compliance can result in penalties, comprising fines and a jail term of up to one year. Difficulties in monitoring and enforcing the Mandatory Jute Packaging Act 2010 in Bangladesh challenges are as follows.

**I. Insufficient Monitoring Mechanisms:** The number of mobile courts and inspections conducted to check for compliance is often insufficient.

**II. Lack of consistent monitoring:** Enforcement efforts are often inconsistent, with an absence of sustained, widespread monitoring. Mobile court is not sufficient to ensure compliance over the country.

**III. Inaction by law-enforcing agencies:** There is a history of relaxed implementation by relevant authorities to enforce the law strictly.

**IV. Plastic industry influence:** The influence of the plastic industry has undermined the ban, leading to a consolidation of the plastic industry's dominance.

**V. Cost factor:** Jute bags are significantly more expensive than plastic alternatives like polypropylene bags that making it economically unattractive for millers and traders to comply with the law. A 50 kg jute bag can cost around Taka 80, while a plastic one costs Taka 12-13.

**VI. Lack of government support:** The government has not consistently provided adequate support, such as ensuring a steady supply of jute sacks, to meet the law's requirements.

**VII. Inconsistent supply:** The jute sector has faced issues with ensuring a steady and enough supply of required jute bags for all listed products across the country.

**VIII. Imported goods:** Imported rice and other products often arrive in plastic bags, creating an additional challenge to the law's enforcement.

**X. Limited public awareness:** Citizens are not enough aware about environmental pollution. There is a need for more systematic mass awareness campaigns among businesses and citizens regarding the environmental and health benefits of using jute and the hazards of plastic.

### **The specific challenges to achieving self-sufficiency in jute seed production**

The specific challenges to achieving self-sufficiency in jute seed production include little local production capacity, high production cost, unstable and low price of jute, farmer preference for high profitable crops, poor seed quality and delayed supply of seeds as well as lack of knowledge about improved seed production technologies, suitable field management (e.g., proper fertilization, pest control) and post-harvest seed preservation techniques. Other issues are inconsistent seed supply due to climate variability, inadequate infrastructure for storage, and weak enforcement of seed laws.

### **VI. Recommendation**

The following recommendations can be drawn from this study to improve the production, consumption and export of jute for achieving our ancient fame of golden fiber.

- i. Bangladesh imports around 90% of its jute seeds from India. Farmers and the Bangladesh government should take necessary initiative to be self-reliant in jute seeds.
- ii. With the implication of policies, we can regain our lost fame as the golden fiber of Bangladesh. Advertisement through a seminar or jute fair nationally and internationally. The government of Bangladesh should monitor to implement Jute Packaging Act 2010.
- iii. The government/ Authority must help farmers to produce jute for achieving the annual target amount.
- iv. The government/ Authority must help farmers by buying jute from them directly and must take initiative to cultivate more lands by giving incentive to farmers.
- v. To ensure that local jute mills get adequate supply. If we make our local jute mill stronger, Bangladesh can be the first jute exporter in the world. India imports raw jute from Bangladesh and becomes the first jute exporter by producing jute products.
- vi. To produce diversified jute products can add value 10 times more than traditional jute products.

**Limitations of this paper:** This paper depends on secondary data with various external sources. Thus further studies have been required for practical implications.

### **VII. Conclusion:**

At present Bangladesh is the second largest producer of jute in the world and top exporter of jute products in the world and producer of the finest quality of jute. This study tries to identify the contribution of jute in Bangladesh covering its present situation and some crucial problems related to this sector. To do this, the study used secondary data from different national and international sources. The paper provides necessary insights into the structure of Bangladesh's jute crop. The production of jute is not fixed all over the period. There exists a fluctuation in the production and export of jute. Every year Bangladesh earns revenue from exporting raw jute and jute products. However, the jute crop is troubled with some problems that hamper the development path of the agricultural economy. As the global demand for jute is increasing and Bangladesh dominates jute exports, it requires more important initiatives for sustainable development of jute crops. In this research, some policy suggestions have been given to resolve the existing problems within the jute crop. The findings of the research are expected to be useful to jute farmers, jute industrialists, policy makers, and researchers to address the problems of jute and overcome these difficulties effectively as well as to achieve our ancient fame of golden fiber.

**References**

1. Akterujjaman, S. M. (2016). Export Performance of Readymade Garments Sector of Bangladesh: An analysis.
2. Akter, R. (2015). Jute goods exports to Australia: an analysis of market potentials for Bangladeshi jute products. *International Journal of Management & Business Studies*, 5(2), 21-30.
3. Ali, M. R., Kozan, O., Rahman, A., Islam, K. T., & Hossain, M. I. (2015). Jute retting process: Present practice and problems in Bangladesh. *Agricultural Engineering International: CIGR Journal*, 17(2).
4. Annual reports, Bangladesh Jute Mills Corporation
5. Annual reports, Agricultural information Service (AIS)
6. Begum, (2016), "Demand for jute goods rising in international market", the financial express.
7. Biswas, M. K., Ridwan-ul-risty, K. M., & Datta, A. (2019). A proposal of sustainable and integrated plant for jute fiber extraction in an eco-friendly manner. *International Journal of Scientific & Engineering Research*, 10(1), 801-809.
8. Chowdhury, I. U. A., & Rashed, S. (2015). Market access of Bangladesh's jute in the global market: Present status and future prospects. *Journal of Economics and Sustainable Development*, 6(3), 67-76.
9. Ferdous, J., Hossain, M. S., Alim, M. A., & Islam, M. M. (2019). Effect of Field Duration on Yield and Yield Attributes of Tossa Jute Varieties at Different Agroecological Zones. *Bangladesh Agronomy Journal*.
10. Islam, M. M. (2017). Marketing of Raw Jute in Bangladesh: A Review. *International Journal of Business Marketing and Management (IJBMM)*, 21-39
11. Islam, M. M. (2019a). Exploring Silent Negligence of Jute-The Golden Fiber of Bangladesh: A Historical Perspective. *Journal of Economics and Business*, 2(3).
12. Islam, M. M. (2019b). Advanced Production Technology and Processing of Jute. In *Agronomic Crops*.
13. Islam and shishir , "Jute export rise record 315 in FY21" *Business standard*. 23 august 2021
14. Islam, M. M., & Ali, M. S. (2017). Economic importance of jute in Bangladesh: production, research achievements and diversification. *International Journal of Economic Theory and Application*, 4(6), 45-57.
15. Khan, M. N. S. (2019). Jute Export Management System. Project Report: United International University, Retrieved from <http://dspace.uuu.ac.bd/handle/52243/1510>
16. Miah, A., Saha, N. R., Rafiq, M. Z. A., Ali, M. Y., & Hasanuzzaman, M. (2020). Performance study on yield and yield attributes of seven white jute breeding lines at different regions of Bangladesh. *Progressive Agriculture*, 31(1), 19-25.
17. Molla et al (2015), " Current Scenario Of Jute Sector in Bangladesh: Domestic and World Perspective" *International Journal Business, social and Scientific Research*, Vol. 02, Issue 02, Page No. 136-144.
18. Mirza Shakil (2022) , "Rising demand, price of jute entice farmers"
19. Moazzem, K. G., Rahman, M. T., & Sobhan, A. (2009). Jute manufacturing sector of Bangladesh: challenges, opportunities, and policy options. Dhaka: Centre for Policy Dialogue.
20. Peu, N. I. (2019). The market prospect or export potential of diversified jute products in Bangladesh.
21. Rahman et al (2017). Exploring the future potential of jute in Bangladesh. *Agriculture*, 7(12), 96.
22. Rifath, M. F. (2018). A conceptual model of upstream jute and jute diversified products' supply chain management. Project Report: BRAC University, Retrieved from <http://hdl.handle.net/10361/11045>
23. Reports, Bangladesh Investment Development Authority (BIDA)
24. Reports, Export Promotion Bureau (EPB)
25. Reports, Department of jute, Ministry of Textiles and Jute
26. Reports, Bangladesh Bank
27. Sarker R. (2018), "Trade Expansion, International Competitiveness and the Pursuit of Export Diversification in Bangladesh" *Bangladesh Development Studies* Vol. XLI, June 2018, No. 2,
28. Statistical Yearbook Bangladesh 2021 41 TH EDITION, Date of Publication: June 2022
29. Tareq, M. Z., Khan, M. A., Mollah, M. A. F., Hasan, M. M., & Alam, M. J. (2015). Effect of storage environment on jute seed qualities. *Bangladesh J*, 29, 45-48.
30. Uddin, M., Hossain, J. J., & Hoque, M. A. (2014). Present conditions of jute sector in Bangladesh. *Banglavisoin Research Journal*, 14(1), 68-79.