

GLOBAL MARKET OPPORTUNITIES IN EXPORT OF JUTE

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The present paper titled **Global Market Opportunities in Export of Jute** has been prepared under the CPD-IRBD programme.

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Acronyms

ADD	Anti-dumping Duty
ASEAN	Association of Southeast Nations
BJMC	Bangladesh Jute Mills Corporation
CBC	Carpet Backing Cloth
EBA	Everything but Arms
EEC	European Economic Community
EPB	Export Promotion Bureau
EU	European Union
FDI	Foreign Direct Investment
f.o.b	Free on Board
GSP	Generalized System of Preferences
GoB	Government of Bangladesh
HYV	High-yielding Variety
ITC	International Trade Centre
MFN	Most Favoured Nation
MT	Metric Ton
NORAD	Norwegian Agency for Development Cooperation
NTB	Non-tariff Barrier
PPP	Public-Private Partnership
PSI	Pre-shipment Inspection
RCA	Revealed Comparative Advantage
RMG	Readymade Garments
RTA	Regional Trade Agreement
RoO	Rules of Origin
R&D	Research and Development
SAARC	South Asian Association for Regional Cooperation
SAFTA	South Asian Free Trade Area
SME	Small and Medium Enterprise
SPS	Sanitary and Phytosanitary
TBT	Technical Barrier to Trade
UK	United Kingdom
USA	United States of America
USD	United States Dollar
USITC	United States International Trade Commission
WTO	World Trade Organization

1. INTRODUCTION

As is known, jute was the single most important export item of Bangladesh till the end of the 1980s. With the ascendancy of export-oriented readymade garments (RMG), and later on of shrimp, jute lost its pre-eminent position. It presently occupies the third position in the export basket of Bangladesh. Agro-climatic environment made Bangladesh a natural home for producing the best quality jute in the world – Bangladesh has continued to remain world's largest grower of quality jute. Indeed, jute production is concentrated mainly in and around South and South East Asian region. Other major producing countries are India, China, Thailand, and Myanmar. Bangladesh is the leading exporter of raw jute globally, whilst India is the largest producer as well as consumer of jute products in the world. Bangladesh's jute sector started to face a critical time particularly since the 1990s, as jute started to face increasing competitive pressure from synthetic substitutes, with technological developments leading to progressive replacement of natural raw materials. Lack of significant efforts and required investments towards product development and diversification as also an inability to undertake the technological transformation undermined jute's prospects as a fibre. Failure to follow modern marketing procedures and international trade practices led to the demise of jute as an important globally-traded commodity. All these had adverse impact on production, consumption and export performance of jute.

Owing to environmental conditions, scarcity of land for cultivation, high input cost, high profitability of high-yielding variety (HYV) and hybrid crops, and an unfavourable jute-rice price ratio, jute at present tends to be cultivated in less productive land. The consequence of lower productivity and low profit thus gave rise to a vicious cycle. Low output prices, and inadequate marketing support and extension services had a significant negative impact on jute cultivation and export earnings (BJRI 2008). Governments and private sectors in jute growing countries only lately have started to undertake initiatives to address the attendant concerns. This renewed emphasis has been spurred due to the resurgence of global demand for jute as an environment-friendly commodity. A number of technological breakthroughs favouring diversified uses of jute fibre have also helped. The present paper makes an attempt to analyse the challenges and opportunities in the world market for Bangladesh's export-oriented jute sector, in view of the recent developments some of which have been flagged above.

The objectives of the present study are to:

- a) Ascertain the global trends in trade in raw jute and jute goods (export and import) over the past years, particularly focusing on the Bangladesh performance;
- b) Capture the changes in both sourcing and destination;
- c) Analyse the state of competition and competitiveness environment, major competitors of Bangladesh and price competitiveness status of major Bangladeshi jute items;
- d) Examine market access correlates such as tariff, non-tariff barriers (NTBs) faced by Bangladesh in the global jute markets and preferential treatment accorded to jute items under various Generalized System of Preferences (GSP) schemes;

- e) Analyse competitiveness scenario from major substitutes of jute in the global market; and
- f) Put forward policy recommendations to enhance the export performance of country's jute sector.

2. EXPORT PERFORMANCE

This section will examine the export performance trends of raw jute and jute goods with a view to understanding global market behaviour both at aggregate and disaggregate levels. As the data indicate, export-oriented jute sector of Bangladesh used to contribute USD 313.1 million of export revenue in FY1972-73, which was about 90 per cent of the total export from Bangladesh at that time. This had come down to 23 per cent by FY1990-91, whilst in FY2000-01 the share came down to 4.6 per cent, which declined further to 2.7 per cent in FY2008-09 (Table 1). It is notable, however, that share began to rise over the next year to reach 4.5 per cent in FY2009-10. Phenomenal growth of Bangladesh's export-oriented garments sector in the 1990s was the major reason for the decline in the share of jute; however, fact remains that the picture also did not improve much in terms of absolute value. It is interesting to note that, in FY2009-10 total export of Bangladesh was USD 16.2 billion, which was higher than the total amount (USD 15.3 billion) earned from raw jute and jute goods export between FY1972-73 to FY2009-10. Total export of raw jute and jute goods did not increase significantly; it rose from USD 313.1 million in FY1972-73 to USD 736.4 million in FY2009-10 (Table 1), whilst total export of Bangladesh rose from USD 348.4 million to USD 16.2 billion in FY2009-10. However, Bangladesh continued to remain the leading exporter globally with the country accounting for over 90 per cent of the world's raw jute and allied fibre export. It is important to mention here that, raw jute and jute goods export increased significantly and almost doubled in FY2009-10 compared to FY2008-09 (by about 98.5 per cent), to reach USD 736.4 million. In FY2009-10, Bangladesh exported 4,471 thousand bolls of raw jute and 906 thousand tonnes of jute goods. Major jute items that were exported included – raw jute, jute yarn and twine, jute carpet, jute ropes, and other jute items.

Table 1: Share of Jute Export

Year	Value (Million USD)	Share (%)
FY1972-73	313.1	89.9
FY1980-81	487.3	68.6
FY1990-91	394.6	23.0
FY2000-01	297.5	4.6
FY2004-05	334.9	4.0
FY2007-08	483.4	3.4
FY2008-09	417.0	2.7
FY2009-10	736.4	4.5

Source: Export Promotion Bureau (EPB) Year Book, various years.

Table 2 provides relative growth rates of raw jute and jute goods export over the last four decades, since independence. This growth dynamics indicates three clearly discernible phases. As was noted earlier, at independence, raw jute and jute goods used to be the

dominant export items of Bangladesh. During the 1970s export growth of jute and jute items was 6.8 per cent. Following this, in the 1980s and 1990s, export under these items fell down sharply, with negative growths of (-) 1.4 per cent and (-) 1.4 per cent respectively. It was a time when the RMG sector emerged as the major player in Bangladesh's export scenario, registering remarkable growth performance and posting increasingly rising share in the total export basket. Over the last decade, between FY2000-01 and FY2009-10, export growth of raw jute and jute goods were 13.3 per cent and 6.4 per cent respectively (Table 2). This reemergence of the jute sector as an important export commodity now reinforces the reason for renewed attention to design the appropriate policies for this sector by taking cognisance of the new developments. It is interesting to note that during the financial crisis year of FY2008-09, export of raw jute and jute goods suffered significantly and posted negative growth rates of (-) 10.5 per cent and (-) 15.4 per cent respectively. However, in FY2009-10 both the items were able to regain positive and high growth rates, and attained 32.5 per cent and 100.6 per cent growth rates respectively. For FY2010-11 export target for raw jute and jute goods have been set at USD 255.2 million and USD 860.2, which were 30 per cent and 59.3 per cent higher than the actual export in FY2009-10.

Table 2: Growth Performance of Jute and Jute Goods Export by Bangladesh

(in Per cent)

Item	FY1973 – FY1981	FY1981 – FY1991	FY1991 – FY2001	FY2001 – FY2010	FY1973 – FY2010
Raw jute	1.0	-1.2	-1.2	13.3	-0.4
Jute goods	9.7	-1.5	-1.4	6.4	0.7
Total raw jute and jute goods	6.8	-1.4	-1.4	8.3	0.4
Total export from Bangladesh	10.3	9.9	13.6	12.4	10.9

Source: Estimated from the Export Promotion Bureau (EPB) data.

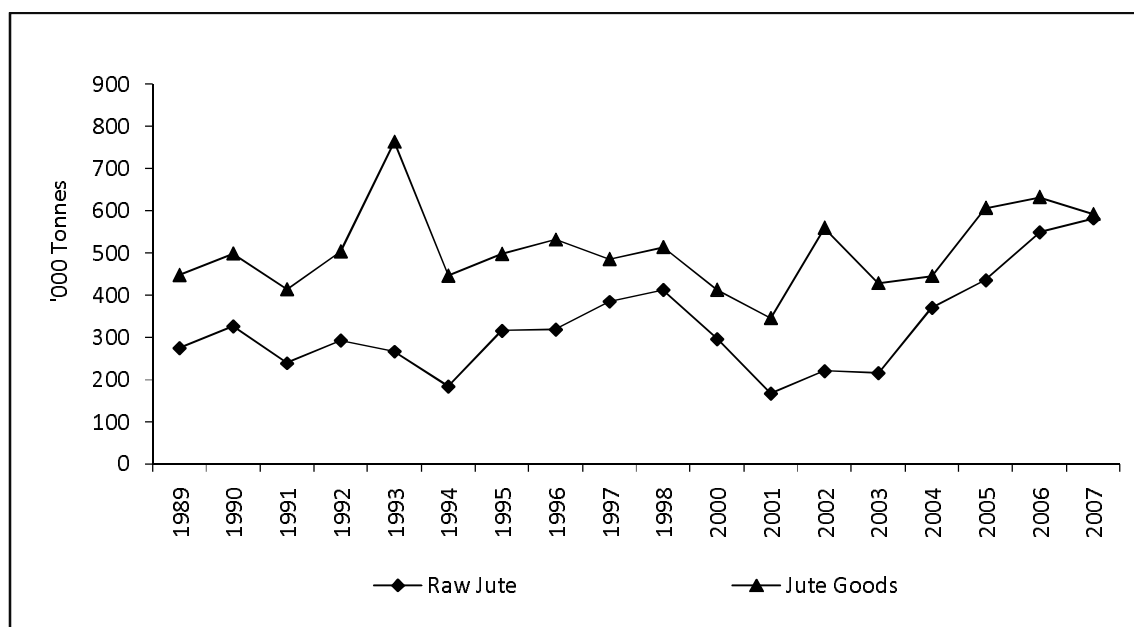
2.1 Performance of Raw Jute and Jute Goods

Global jute production was estimated to be at approximately 2.67 million tonnes in FY2007-08, marginally lower by 38,500 tonnes when compared to the production in FY2006-07. India topped the list of major producers, accounting for an impressive 61.6 per cent of the world production in FY2007-08. Her production was 1.64 million tonnes in that year. India was followed by Bangladesh with a share of nearly 37.1 per cent; Myanmar was a distant third with 0.7 per cent of the global jute fibre production. In FY2008-09, Bangladesh produced 0.8 million metric tonnes (MT) of jute compared to 1.4 million MT in India (FAO 2009). Thailand, Nepal and Brazil also grow and produce jute and/or jute goods, along with Vietnam, Indonesia and Cambodia, while Thailand and Myanmar are among the jute fibre exporting countries. Other producers consume most of their grown jute. Some countries (e.g. Ivory Coast, Brazil, Egypt and Cuba) have developed traditional jute goods manufacturing industry at small-scale capacity, based entirely or partially on imported raw fibre. The end products are sacks and bags produced mainly for their domestic use.

The jute sector of Bangladesh has experienced important changes since the 1990s. Export volume of raw jute was below 0.3 million tonnes during late 1980s and continued to fall till 1994. Export trend saw some turnaround since then, but again experienced a trough during 2001 (severe than the previous deep of 1994). 2004 onwards export of raw jute and jute goods have continued to post an increasing trend (Figure 1). It is important to

note here that export volume of jute goods was significantly higher than raw jute throughout any time period.

Figure 1: Export of Raw Jute and Jute Goods (in Quantity Terms)



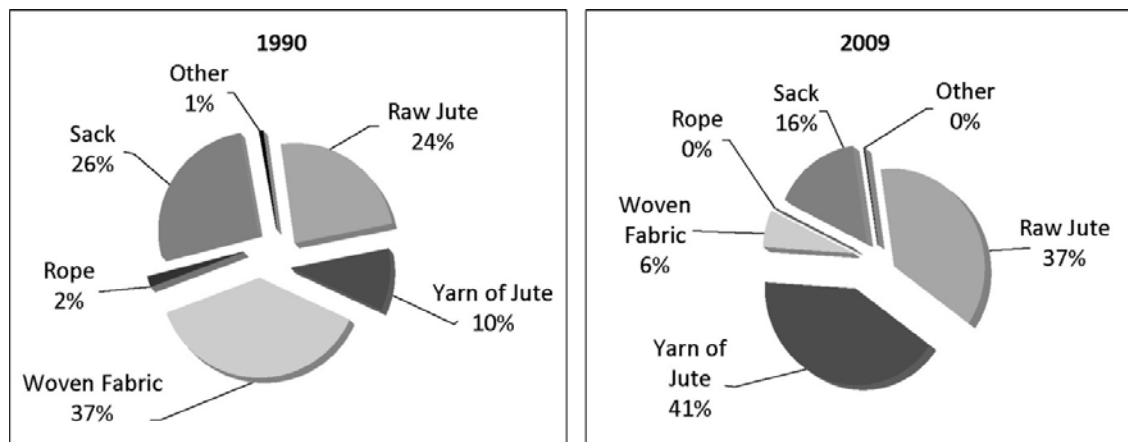
Source: UN Comtrade Database (2010).

During FY2009-10, Bangladesh exported raw jute worth USD 196.3 million and jute goods worth USD 540.2 million (to compare, raw jute export in FY1984-85 was USD 150.8 million whilst that of jute goods was USD 389.8 million). Raw jute and jute goods accounted for 4.5 per cent of the total export, of which the respective share of raw jute and jute goods were 1.2 per cent and 3.3 per cent. Export of jute goods in FY2009-10 was 905.9 thousand MT, accounting for USD 540.2 million, which was a notable rise by 143.5 per cent in quantity terms, and 134.1 per cent rise in value terms over the corresponding figures of FY2000-01. Raw jute export during the period FY2009-10 was 4,470.8 thousand bales against 1,500.2 thousand bales in FY2000-01, which accounted for an increase of 198 per cent. In value terms, the growth was 192.5 per cent, from USD 67.2 million to USD 196.3 million.

It needs to be pointed out here that as the structure of jute export indicates, the base of exportable jute items has continued to remain rather shallow and undiversified. Bangladesh's export basket is concentrated in only about eight products other than the raw jute item (530310: Jute and other textile bast fibres, raw or retted; 530390: Jute and other bast fibres, not spun, nes, tow, waste). These include: 530710: Yarn of jute or textile bast fibres nes, single; 530720: Yarn of jute, textile bast fibre nes, multiple, cable; 531010: Woven fabric of jute/bast fibres, unbleached/bleached; 531090: Woven fabric of jute/bast fibre, not unbleached/bleached; 560710: Twine, cordage, ropes and cables, of jute, bast fibre; 570500: Carpets and textile floor coverings, nes; 630510: Sacks and bags, for package of goods, of jute or of other textile bast fibres; 640590: Footwear, nes. Among these items highest export share was recorded for yarn in 2009. Figure 2 indicates that, contribution of jute yarn has increased from 10 per cent in 1990 to 41 per cent in 2009. In

1990, the highest exported item was woven fabrics of jute, whose share had come down to 6 per cent in 2009 from 37 per cent in 1990. Raw jute and sacks accounted for 37 per cent and 16 per cent of the total export in 2009 respectively. Other three export items – ropes, carpets and textile floor coverings and footwear registered low export earnings during the period under review.

Figure 2: Share of Jute Export Items



Source: UN Comtrade Database (2010).

3. SOURCE AND DESTINATION OF RAW JUTE AND JUTE GOODS

Interest in jute fibre, as was noted above, has resurrected recently in view of environmental friendliness of the product. It is now reckoned to be a good alternative to the use of synthetic fibres such as carbon or ceramic fibres which are subject to environmental concerns. Jute is an environment-friendly product since the fossil fuel content is lower compared to other fibres; jute is also an economically profitable crop as it uses 10 per cent less energy. At the same time jute absorbs a large amount of carbon dioxide from the atmosphere. Reduction of world demand for jute since 1980s was one of the primary reasons for the gradual decline that the jute sector of Bangladesh has experienced over the past years. The increasing global awareness about the advantage of using natural fibres has now resulted in a rise in global demand for jute goods. Globally, demand for diversified jute products has been growing particularly in developed country markets such as USA, Canada, Australia and Japan, where consumer groups are becoming increasingly conscious about carbon footprint of consumer goods. Bangladesh is in a unique situation to take advantage of this growing consumer concern and the resultant interest.

For the last five years (from 2005 to 2009), export of raw jute in the world market has increased by 39.5 per cent, and export of jute products has increased by 57.6 per cent. In 2009, Bangladesh was the largest raw jute exporter with a share of about 85.7 per cent of the total global export. On the other hand, China occupied the topmost position among the exporters of jute goods accounting for 58.1 per cent of the total global export. India accounted for 8.5 per cent and Bangladesh for 6 per cent of export of jute products in the world market. Between 2005 and 2009, China's export of jute goods increased by 181.1 per

cent, whilst that of Bangladesh declined by 11.1 per cent, although the benchmark figures for the two countries were significantly different (Table 3).

Table 3: Top Exporters of Raw Jute and Jute Goods in the World

(Million USD)

Exporter	2005		2009		Change in 2009 over 2005 (%)
	Value	Share of World Export (%)	Value	Share of World Export (%)	
Raw Jute					
World	139.5	-	194.5	-	39.5
Bangladesh	121.9	87.4	166.7	85.7	36.7
India	2.9	2.1	7.1	3.6	139.4
Tanzania	0.3	0.2	8.6	4.4	3333.7
Jute Goods					
World	2979.9	-	4695.5	-	57.6
China	970.9	32.6	2729.6	58.1	181.1
India	398.2	13.4	398.3	8.5	0.0
Bangladesh	318.9	10.7	283.7	6.0	-11.1

Source: Trade Map Database (2010).

According to the annual statistical report of the Bangladesh Jute Mills Corporation (BJMC), among the major exported jute products export of such items as hessian, sacking and carpet backing cloth (CBC) accounted for 82.6 per cent of total jute goods exports from Bangladesh in FY2007-08. Table 4 presents the composition of export of jute products in FY2007-08: 42.8 thousand MT for hessian (100.1 per cent lower than in FY1999-00); sacking 114 thousand MT (7.7 per cent lower than in FY1999-00); and CBC 18.53 thousand MT (91.5 per cent lower than in FY1999-00). Export of all jute products was 212.2 thousand MT (94.8 per cent lower than in FY1999-00). Major destinations of Bangladesh's jute goods export were Middle East, North Africa, European Economic Community (EEC) countries, South East Asia, Australia, USA and East Africa in FY2007-08, which accounted for 94.3 per cent of total export of jute goods in FY2006-07 compared to 93.5 per cent in FY1999-00.

Table 4: Export (Volume) of Jute Goods

('000 MT)

Period	Hessian	Sacking	CBC	Others	Total
FY1999-00	85.7	122.8	35.5	169.6	413.5
FY2004-05	44.6	91.2	15.7	268.8	420.3
FY2005-06	56.2	118.1	21.1	280.7	476.0
FY2006-07	37.8	104.5	18.6	318.0	478.9
FY2007-08	42.8	114.0	18.5	36.9	212.2

Source: BJMC (2009).

In 2009, Bangladesh exported 322.6 thousand tonnes of raw jute worth USD 166.7 million (Annex Table 1). Her export was concentrated in two major markets, both of which were in Asia, Pakistan (32.2 per cent) and China (28.6 per cent). These two together accounted for more than 60 per cent of the raw jute exported by Bangladesh in 2009. Raw jute export to Pakistan was USD 52.1 million (96.1 thousand tonnes), and to China USD 46.2 million (94.9 thousand tonnes). It is to be noted that, Bangladesh does not face any tariff on her export of raw jute to these two countries. Export of raw jute has posted a growth of 9 per cent for

China and declined by (-) 12 per cent for Pakistan in 2009 compared to 2008. For jute yarn, Bangladesh's major markets were Turkey, Belgium and India. In 2009, export of yarn has decreased for Belgium by (-) 18 per cent; and for Turkey by (-) 1 per cent and (-) 4 per cent for two HS categories. In contrast, in India the growth was significant (79 per cent). Export of jute woven fabric registered very high growth in the markets of India, New Zealand and Korea, with 24 per cent, 120 per cent and 23 per cent respectively in 2009 compared to 2008. Indonesia was the largest market for ropes; however, export was 58 per cent lower compared to 2008. Sacks and bags had to face 4 per cent and 5 per cent ad valorem tariffs in India and Indonesia. Exports of these items to India has declined considerably by (-) 31 per cent in 2009 when compared to 2008. Sacks and bags export to Indonesia has increased in 2009 compared to 2008 by 15 per cent. Bangladesh also exports an insignificant amount of footwear to United Kingdom (UK) and Italy. Global import of raw jute increased by 5 per cent in 2009 compared to 2008. However, yarn, woven fabric, ropes, and sacks and bags import had faced a decline during this period.

Bangladesh accounted for the major share, 87.8 per cent and 47.5 per cent of the export of two major types of jute fibres in 2009; the growth rates for these (for 530310 and 530390) were 15 per cent and 27 per cent respectively compared to 2005 (Annex Table 2). Tanzania and Greece, which are the two major exporters of jute fibre, accounted for 4.6 per cent and 13.2 per cent share of global exports in these two items in 2009. Estimates for the year 2009 reveal that the world market for raw jute increased by nearly 16 per cent and 4 per cent respectively over last five years; Bangladesh's export growth was 15 per cent and 27 per cent in this period. Volume-wise global export of Bangladeshi raw jute declined from 328 thousand MT to 314 thousand MT between 2005 to 2009, with a negative growth of (-) 4.3 per cent.

Product-wise export performance, revealed that Bangladesh is the second highest exporter of jute products after China. Traditional products, such as jute yarn, woven fabric, ropes and jute carpet collectively constituted 64.5 per cent of the total traditional exports of Bangladesh in FY2009-10. The top traditional items, except ropes witnessed an increase in 2009 compared to 2008. Jute handbags, knitted fabrics, power loom fabrics, non-woven cloths, handicrafts and jute clothing bags formed a major part of jute earnings.

Major Asian destinations of raw jute and jute goods export were India, Turkey, Pakistan, China, Russia, Indonesia and Malaysia. Major exported items in these countries were raw jute, yarn and fabric. Two South East Asian countries, Indonesia and Malaysia imported primarily ropes and sacks and bags from Bangladesh.

Region-wise distribution of jute goods export revealed that Middle East was the major destination (21.6 per cent) of exported jute items from Bangladesh (Table 5). North Africa, the second most important destination, imports about 11.9 per cent of Bangladeshi jute items. Other major importers were – EEC countries, South East Asia and Australia. Hessians were mainly exported to Middle East, EEC countries, America and North Africa. Sackings were exported to North Africa, South East Asia, Middle East, East Africa, West and South Africa and Australia. CBC is generally exported to Australia, EEC countries, Middle East, rest of America, rest of Europe and USA.

Table 5: Region-wise Distribution of Jute Items Export from Bangladesh (BJMC and BJMA) in FY2006-07*(Million USD)*

Destination	Hessian	Sacking	CBC	Others	Total
Total	37.8	104.5	18.6	32.5	193.4
Rest of the world	5.9	34.4	2.9	0.2	43.3
Middle East	11.8	14.4	0.2	15.4	41.8
North Africa	3.0	17.1	0.0	3.0	23.0
EEC countries	8.1	2.1	4.7	5.5	20.3
South East Asia	0.6	16.0	0.0	1.4	18.0
Australia	0.8	2.9	10.6	0.9	15.1
USA	5.5	1.3	0.0	3.8	10.7
East Africa	0.1	10.1	0.0	0.0	10.2
West and South Africa	0.1	4.2	0.0	0.4	4.6
Rest of America	1.8	2.1	0.1	0.4	4.4
Russia	0.0	0.0	0.0	1.3	1.3
Rest of Europe	0.2	0.1	0.1	0.3	0.7

Source: BJMC (2009).

Market analysis shows that, Bangladesh's top export destinations (country-wise), in the year 2009 were Pakistan, China, Turkey, India, Belgium, Australia and Indonesia. Exports to majority of these countries had declined during 2009 compared to 2008. Imports of raw jute by Pakistan in 2009 stood at USD 53.8 million. Pakistan imported almost the entire quantity of its jute fibre requirements from Bangladesh (96.6 per cent of her total import). China and India obtained 99.8 per cent and 100 per cent of their total raw jute import from Bangladesh. Yarn export of Bangladesh to Turkey, India and USA covers 96.7 per cent, 98.9 per cent and 89.5 per cent of their total market demand respectively. Fabric export to Australia meets 79.5 per cent and sacks export to India meets 69.1 per cent of the respective total market volume. Turkey and Belgium primarily imported multiple jute yarn from Bangladesh, which accounted for 91.3 per cent and 65.1 per cent of their total jute yarn import.

India was the largest exporter of jute fabrics. India met 54.9 per cent of the world's total demand which was followed by Bangladesh with 27.2 per cent of the global export share. In case of jute fabric (531010), India's major markets were USA (15.1 per cent), Netherlands (11.6 per cent), Germany (11.4 per cent), Egypt (8.6 per cent), and Iran (6.7 per cent). These are also the potential export markets for Bangladesh. For woven fabric (531090), China was the largest exporter in 2009, whose exports to Thailand and USA markets covered 42.4 per cent and 4.7 per cent of the respective total global markets. China is also a major exporter for carpets. Her market for this product is mainly concentrated to Germany, Japan, USA and Italy which could be potential markets for Bangladesh. India is the nearest competitor of Bangladesh for sacks and bags. With a view to expand her global market, Bangladesh should design a strategy to gain additional market share away from countries which have in recent years eaten into her market, particularly in Thailand, Ghana, USA and UK.

There are good prospects and possibilities for export of jute and jute products by Bangladesh in the North America, particularly in the USA market. It may be recalled here that, due to environmental concerns, San Francisco has banned polythene bags and replaced these with

paper bags, compostable plastic and reusable canvas sacks. The ban on plastic bags was passed in March 2007. Other US cities are also considering similar bans. England and Australia have also promised to join the fight against plastic bags.¹ Plastic sacks are also taxed in Italy and Belgium. Spain and Norway are now considering a ban or tax. These concerns are likely to create significant possibilities for export of jute bags from Bangladesh.

European Union (EU) could also be a more significant market for Bangladesh than what it is now. UK, Belgium, Germany, Netherlands and a number of other EU countries have good demand for jute products in their home market. Bangladesh's export to EU market have also benefited from preferential treatment. Bangladesh, thus, should strategise to further expand her market share in the EU countries. As the quality of jute produced in Bangladesh is best among those available in the world, she could leverage on this advantage in view of renewed emphasis on and interest in quality in the major jute markets. It has been found that jute also possesses excellent properties for packaging of food items. From this perspective, this could potentially create new markets which could be targeted by Bangladesh. Egypt is one of the major importers of jute goods. Table 6 depicts some potential markets which have imports of more than USD 1 million of jute, but currently are not importing from Bangladesh in 2009. It is to be noted that, exports of such items as shopping bags and food grade jute clothing bags are on the rise in Asia in recent times. Price competitiveness of some of the Bangladeshi jute export to East Asian market is also found to be significantly strong, and should serve as a contributing factor in raising her market share in this growing market.

Table 6: List of Potential Markets for Bangladesh in 2009

HS Code	Description	Potential Markets
530710	Yarn of jute or textile bast fibres nes, single	Egypt (India)
530720	Yarn of jute, textile bast fibre nes, multiple, cable	Egypt (India, USA), Uzbekistan (Turkey)
531010	Woven fabric of jute/bast fibres, unbleached/bleached	Egypt (India), Malawi (India), Saudi Arab (India), Syria (India), Tanzania (India)
531090	Woven fabric of jute/bast fibre, not unbleached/bleached	Iran (Pakistan), UK (India)
630510	Sacks and bags, for packg of goods, of jute or of other textile bast fibres	Algeria (China), Denmark (Turkey), Saudi Arab (India), Sudan (Pakistan), Tanzania (India), Zimbabwe (India)

Source: Trade Map Database.

Note: Countries in parentheses indicate major source countries.

4. COMPETITION AND COMPETITIVENESS ENVIRONMENT

4.1 Revealed Comparative Advantage (RCA)

As is known, the concept of Revealed Comparative Advantage (RCA) is used to identify a situation when free trade allows countries to gain from increasing specialisation in activities

¹The reasons behind this are – plastic bags clog up landfills and destroy fish habitat; they guzzle oil and energy; plastic items decay far slower than other wastes, and are difficult to recycle (Samuel 2008).

where they have (strong) comparative advantage.² The competitiveness of jute exports from Bangladesh has been measured through RCA which indicates the relative export performance situation of a country and industry, defined as a country's share of world exports of an item divided by its share of total world exports. If RCA value of a product is more than 1, the product is considered to be having comparative advantage in the global market. Table 7 indicates that Bangladesh enjoys higher RCAs compared to India in a number of jute items of export.

In 2009, Bangladesh enjoyed the highest RCA in all items of raw jute and jute goods except carpet. On the other hand, India had the highest RCA in carpet. Higher RCAs in many jute items indicate that Bangladesh's export specialisation in these products is higher than the average export specialisation in the world in these same products, and testify to the fact that Bangladesh's competitive strength in these products was greater than the world's average competitiveness. A matter of heightened concern for Bangladesh, however, was the loss of her comparative advantage in almost all jute products, except jute yarn (multiple cables), over time. This is clearly visible for woven fabric of jute/bast fibre (not unbleached/bleached) and twine, cordage, ropes and cables, of jute. Conversely, India's comparative advantage has been on the rise for raw jute, between 2005 and 2009. Even though, India had significantly higher RCAs for carpets, Bangladesh enjoyed price advantage for this product (USD 6,658 per ton and USD 3,594 per ton respectively for India and Bangladesh).

²Comparative advantage is measured by Balassa's RCA (Revealed Comparative Advantage) Index. The Index can be defined as:

$$RCA_{ij} = \frac{E_{ij} / E_i}{E_j / E} = \frac{S_{ij}}{S_j} \dots\dots(1.a) \text{ Or equivalently,}$$

$$RCA_{ij} = \frac{E_{ij} / E_i}{E_j / E} = \frac{C_{ij}}{C_j} \dots\dots(1.b)$$

Where E_{ij} denotes country i 's export of product j ; $E_i = \sum_j E_{ij}$ represents country i 's total export; $E_j = \sum_i E_{ij}$ represents the world export of product j (i.e. the size of the world export market of product j); $E = \sum_i \sum_j E_{ij}$ represents the total world export of all products (i.e. the size of the entire world export market). Thus, $S_{ij} = \frac{E_{ij}}{E_i}$ represents share of product j in country i 's total export; $S_j = \frac{E_j}{E}$ represents share of world's export in product j ; $C_{ij} = \frac{E_{ij}}{E_j}$ measures country i 's export specialisation in product j ; and $C_j = \frac{E_j}{E}$ measures the world export specialisation in product j .

According to equation (1.a), RCA_{ij} implies that country i 's competitiveness in product j (measured by S_{ij}) is greater than its average competitiveness (measured by S_j). Alternatively according to equation (1.b), $RCA_{ij} > 1$ implies that country i 's export specialisation in product j (measured by C_{ij}) is higher than the world average export specialisation in the product (measured by C_j). In summary, $RCA_{ij} > 1$ reveals that country i has strong comparative advantage in product j . Conversely $RCA_{ij} < 1$ implies that country i has weak RCA in product j (Leung and Cai 2005).

Table 7: Revealed Comparative Advantage of Selected Jute Items for Bangladesh and India

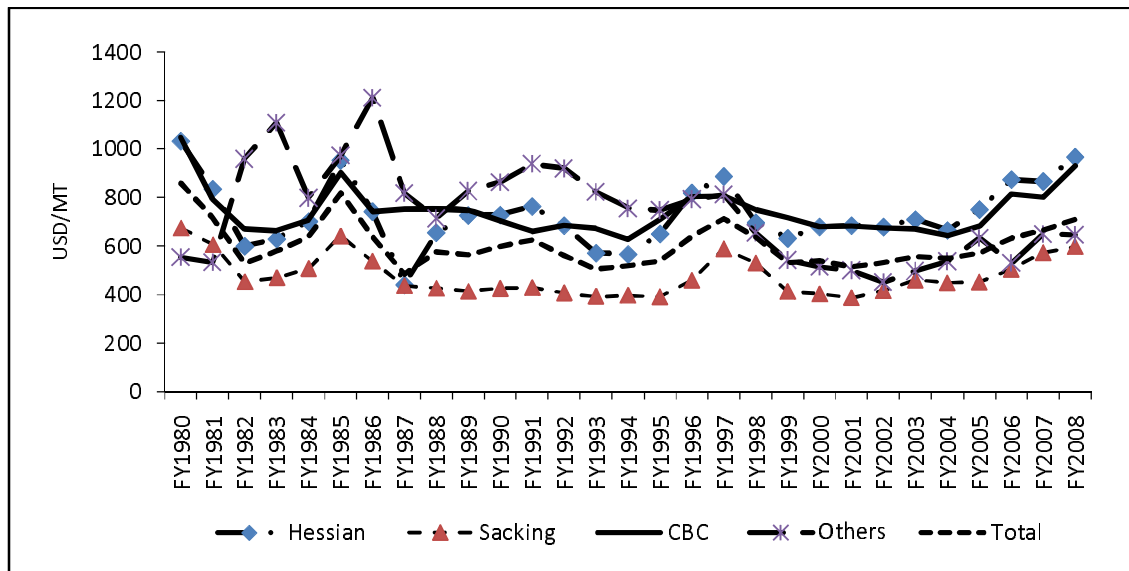
HS Code	Description	Bangladesh		India	
		2005	2009	2005	2009
530310	Jute and other textile bast fibres, raw or retted	1021.2	648.7	2.4	2.6
530390	Jute and other bast fibres, not spun, nes, tow, waste	615.1	351.1	0.5	0.4
530710	Yarn of jute or textile bast fibres nes, single	978.9	688.9	7.2	2.7
530720	Yarn of jute, textile bast fibre nes, multiple, cable	179.7	529.2	68.5	13.2
531010	Woven fabric of jute/bast fibres, unbleached/bleached	326.8	200.9	51.8	37.7
531090	Woven fabric of jute/bast fibre, not unbleached/bleached	357.2	55.6	1.7	0.9
560710	Twine, cordage, ropes and cables, of jute, bast fibre	655.1	423.1	5.5	0.0
570500	Carpets and textile floor coverings, nes	3.5	0.1	21.9	14.2
630510	Sacks and bags, for packg of goods, of jute or of other textile bast fibres	451.2	239.9	39.0	18.0
640590	Footwear, nes	2.5	0.1	0.6	0.1

Source: Trade Map Database.

4.2 Price Competitiveness

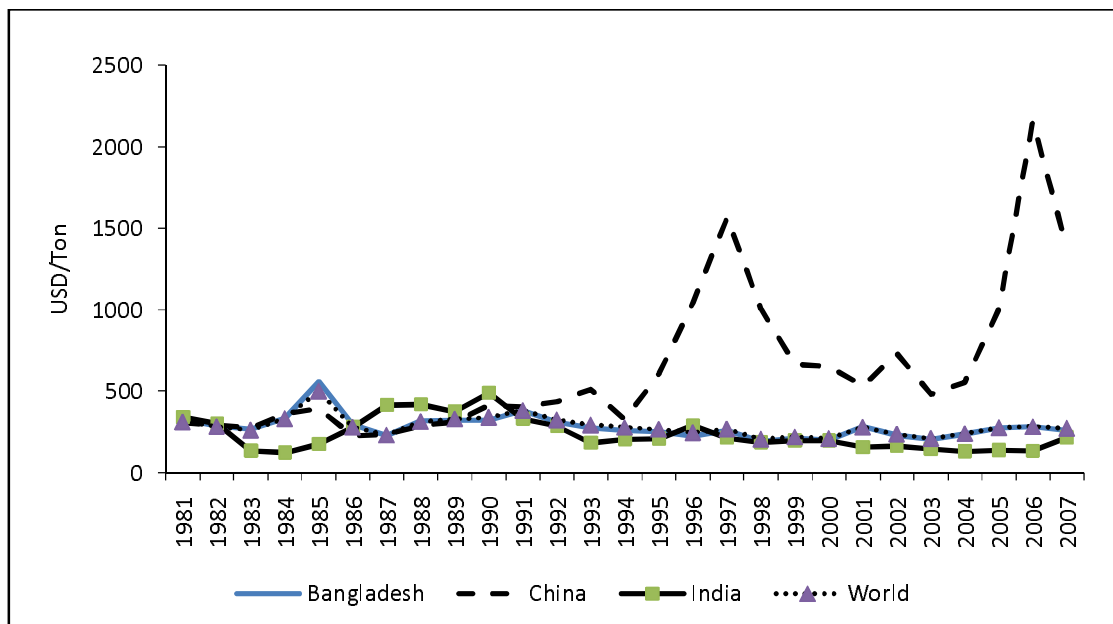
Price competitiveness analyses of the raw jute and jute products reveal that export prices of almost all Bangladeshi jute items were found to be competitive (excepting yarn). Price of raw jute export from Bangladesh has remained more or less similar when compared to the world average. Figure 3 shows that, price of hessian, sacking and CBC were higher in FY1984-85 and FY1997-98. In nominal terms, raw jute price in Bangladesh were at the highest level, almost USD 600 per ton, in FY1984-85. An export ban on raw jute was imposed in Bangladesh from late 1984 to mid 1985 to ensure availability of raw jute for domestic mills. Jute mills in Bangladesh incurred higher costs due to high price of raw jute. Consequently, in FY1984-85 Bangladesh experienced the highest ever stocks of raw jute as goods could not be sold at the higher asked-for price. As indicated in the Figure 4, prices tended to remain significantly lower during the early 2000s compared to the ones prevailing during FY1995-96. Following a decline till FY2002-03, this has again started to rise since FY2003-04. In FY2007-08, prices of hessian and CBC reached as high as USD 966 per ton and USD 929 per ton respectively. Bangladesh faced stiff price competition in exports of yarn of jute (multiple) vis-à-vis India. Although export of fabric was higher than Bangladesh, data shows that Bangladesh's offered price was lower compared to India (Annex Table 2).

Figure 3: Price of Different Jute Items Exported from Bangladesh



Source: BJMC (2009).

Figure 4: Comparative Price of Raw Jute in the World Market



Source: FAO (2008).

Jute prices tend to be subject to extreme volatility and seasonal fluctuations. Jute has to face competition with other fibres, especially polypropylene. Whereas the price of jute fibre is about half of propylene, jute sack price generally tends to be more than twice as expensive as polypropylene sack. This price difference affects the competitiveness of jute sacks. Carpet backing also got severely affected due to such price differential with synthetics; although this was not the only reason. Jute is generally favoured as backing

material for both primary and secondary carpet for both tufted carpets and woven carpets. This was an important end-use of jute at one stage during the 1970s; but this has seen drastic decline since then. The export of both primary and secondary carpet backing to USA and Europe has declined sharply in recent times (IJSG, ITC and CFC 2006).

Polypropylene polymer resin prices fell rapidly compared to jute due to widespread availability, as a result of which, during the early 1970s, jute textile packaging lost much of its market share to synthetics. Especially, during FY1984-85, when jute prices increased sharply due to some unfavourable weather conditions in major producing countries, this brought about shortages of jute supplies in the international market. This resulted in sharp rise of jute prices, which provided synthetic fibres an opportunity to further penetrate into the jute markets, particularly in the developed countries; and once the jute products lost its market share to polypropylene, it could not regain the previous share due to its higher cost price and supply constraints. In China and Thailand, woven polypropylene bags were allowed to compete freely, which resulted in the collapse of natural fibre market.

Loss of market share of sacking is a long-term process. Sacking is the most widely used item for Bangladeshi jute. During 1970s, jute sacking was increasingly replaced with that of polypropylene plastic bags. Closure of jute mills in Europe, and transfer of part of yarn market away from Europe towards carpet weaving countries in the Middle East had a cumulative affect which caused substantial erosion of the export market of both jute and jute goods for Bangladesh. A series of country studies undertaken by FAO on Egypt, Ethiopia, Kenya and Indonesia have revealed that during 1990s, jute or sisal bags were about 50 per cent costlier than plastic bags. In Pakistan also, price of synthetic bags were almost half the price of jute bags manufactured domestically from imported jute fibre (UNCTAD 1996).

4.3 Non-price Factors

Although, lack of price competitiveness of the jute bags do not fully explain the reasons for the significant inroads made by polypropylene, combinations of some other price and non-price factors are also responsible for the exclusion of jute products. Non-price factors include technical characteristics, such as strength, weight, breathability of sacks, biodegradability and water resistance. Table 8 shows the factors contributing to competitiveness of natural and synthetic fibres.

Technical characteristics seem to be also significant for the end use. High tensile strength and impact resistance, light weight, non-shrinkability and water-resistance – these are the major characteristics which act in favour of polypropylene. Jute bags have been largely replaced in the packing of products, especially for chemical and industrial products as these require to be water-proof. On the other hand, breathability is required for vegetable and fruit packaging. Jute bags are preferred in such cases. Polypropylene is preferred in the automatic sack filling system, which is not possible with a jute sack. The use of jute bags in packaging of food products is also negatively affected by the rising concerns of health and hygiene due to the presence of jute dust and fibres. Complaints are sometimes made by importers about the quality of jute yarns, with problems such as unevenness, poorly tied knots and inappropriate packaging (UNCTAD 1996). The main usefulness of polypropylene

Table 8: Non-price Factors Affecting Competitiveness of Jute and Hard Fibres and Polypropylene

Factor	Jute and Hard Fibres	Polypropylene
Technical characteristics	(+) breathability (jute bags) (+) reusability and biodegradability (+) natural look (-) presence of dust and fine fibres (-) unsuitable for automatic filling systems	(+) high tensile strength and impact resistance (+) light weight (+) rot-proof, not shrinkable and water-resistant (-) danger of flammability and smoke toxicity
Quality	(-) occasional problems	(+) consistent quality
Reliability of supplies	(-) instability of supplies due to the dependence on weather conditions and a long-distance transport	(+) regular supplies, production possible at short notice
Marketing	(-) absence of an organised marketing system	(+) aggressive marketing strategies

Source: UNCTAD (1996).

Note: (+) stands for positive quality; and (-) stands for negative quality.

yarn in this context is the consistency in the quality of the fibre and extra yardage without joins on the yarns. As being a natural fibre, jute is more vulnerable to unfavourable weather conditions. For this reason, some buyers prefer polypropylene products from domestic or nearby origins.

Producers of polypropylene products gave importance to aggressive marketing strategies including vigorous promotional campaigns, technical assistance to users and substantial research in product development and adoption, and getting into new areas of use (UNCTAD 1996). Traditional marketing efforts of jute goods producers failed to provide appropriate counter weight to this. As a result, jute producers have seen their market gradually diminished and undermined.

On the other hand, reusability and biodegradability of jute sacks make jute more competitive for the developed world. Due to the environmental awareness with regard to use of natural fibre, jute is likely to gain importance in future. The growing concerns over the dangers of flammability and smoke toxicity of plastic backing favoured the choice of jute cellulose type fibres over synthetic materials in secondary carpet backing, which has been a good news for jute (UNCTAD 1996).

5. MARKET ACCESS ENVIRONMENT

The term 'Market Access' denotes the degree of openness that countries face while exporting a commodity to another country. Countries apply various measures to restrict imports to benefit local industries or favour particular countries. In the 1970s and 1980s, tariff was the major instrument to enhance or limit market access. Average tariff on manufacturing import came down significantly in recent years, from about 40 per cent to 4.7 per cent (Kumar *et al.* 2007). However, NTBs still remain on a large number of tradables. Traditionally, such measures included – quota restrictions, price control measures, financial measures, automatic licensing, quality control measures, monopolistic measures and technical measures. Apart from the technological changes and competitiveness factors, which have contributed to

reduce tier of use of jute and jute goods globally, another reason for this had been the limits imposed by the prevailing market access conditions.

5.1 Tariff Measures

The tariff barriers faced by Bangladesh in case of jute products vary widely from country to country (export destination), and also from item to item. In UK, Japan and Australia duty rates are zero for all the jute items under the Most Favoured Nation (MFN) status, while Kenya and Iran impose the very high tariffs of 73.4 per cent and 50 per cent respectively. Bangladesh faces highest tariff rate for raw jute in Singapore, Colombia and Vietnam with 10 per cent, and Brazil with 8 per cent. Twine and ropes have highest duty in the range of 15 per cent in Venezuela, 10 per cent in Philippines and Barbados. For fabric, highest duties are levied by Algeria (30 per cent), Tanzania and Kenya (25 per cent), Brazil and Iran (20 per cent). Bangladesh has to face high tariff for exporting sacks and bags of jute in Iran (65 per cent), Kenya (59 per cent) and Vietnam (40 per cent). Brazil imposed very high anti-dumping duty (ADD) on sacks and bags of jute. These have limited Bangladesh's export opportunities in these countries.

However, Bangladesh also receives preferential market access in various markets, which are reviewed below.

5.1.1 North America

USA is the largest importer of jute in North America. In USA, Bangladesh benefits from zero MFN tariffs on raw jute, yarn, woven fabric, ropes, carpets, and sacks and bags. MFN duty for footwear was 8.2 per cent (Table 9). However, Bangladesh enjoys GSP³ facility in the USA market in footwear. So, in practice, the operative tariff rates are zero.

According to the Trade Act of 1974, enlisted categories of import-sensitive products – certain textile and apparel products, watches, electronic articles, steel products, footwear, glass products and some other items – are not eligible for GSP treatment. In addition to that, the Act also establishes 'competitive need limits,' which require that the GSP treatment be suspended when USA imports of a product from a single country reach a specified threshold value if 50 per cent of the total USA imports of the product comes from a single country. It should be mentioned that, Bangladesh's raw jute and yarn export to the USA market is above 50 per cent threshold limit of her total import of these products. Yarn, woven fabrics and ropes have been enjoying GSP facilities since 2003. Afterwards, as the export exceeded the competitive need limit, GSP treatment status was suspended for

³Products which are grown, produced or manufactured in a beneficiary country and which meet the Rules of Origin (RoO) criteria are eligible for duty-free entry to USA under the GSP. "Eligible merchandises are entitled to duty-free treatment provided some conditions are made; such as, the merchandises must be destined to the United States without contingency for diversion at the time of exportation from the beneficiary developing country; the cost or value of materials produced in the beneficiary developing country and/or the direct cost of processing performed, there must represent at least 35 per cent of the appraised value of the goods; and the cost or value of the materials imported into the beneficiary developing country may be included in calculating the 35 per cent value-added requirement for an eligible article if the materials are first substantially transformed into new and different articles, and are then used as constituent materials in the production of the eligible articles" (CPD 2008).

Bangladesh. However, this did not affect the trade since the MFN rate for these products were zero. Canada is not a very big market for Bangladesh's jute items. USA, India and China together met more than 60 per cent of the Canadian demand of jute products, whereas, Bangladesh accounted for only 3 per cent of her total demand. However, the revised Canadian GSP scheme of 2002 covered all products of export from Bangladesh with 25 per cent domestic value addition as Rules of Origin (RoO). Thus jute items enter the Canadian market with duty-free treatment. Bangladesh needs to strategise to raise her share in the Canadian market.

Table 9: GSP Facilities in the USA Market on Jute Items in 2009

HS Code	Description of Items	MFN Tariff	GSP Facility	Share of Bangladesh's Export in Total Import of US (%)
530310	Jute and other textile bast fibres (excluding flax, true hemp and ramie), raw or retted	Zero	-	86.4
530390	Jute and other textile bast fibres (excluding flax, true hemp and ramie), processed but not spun; tow and waste of these fibres	Zero	-	27.6
530710	Yarn of jute or other textile bast fibres (excluding flax, true hemp, and ramie), single	Zero	-	89.3
530720	Yarn of jute or other textile bast fibres (excluding flax, true hemp, and ramie), multiple (folded) or cabled	Zero	-	0.0
531010	Unbleached woven fabrics of jute or of other textile bast fibres of heading 5303	Zero	-	26.5
531090	Woven fabrics of jute or of other textile bast fibres of heading 5303, other than unbleached	Zero	-	3.1
570500	Carpets and textile floor coverings, nes	Zero	-	0.0
630510	Sacks and bags of a kind used for the packing of goods, of jute or of other textile bast fibres of heading 5303	Zero	-	0.0
640590	Disposable footwear, nes, designed for one-time use	8.15%	GSP	0.0

Source: United States International Trade Commission (USITC) Database.

5.1.2 European Union

EU's share was 15.6 per cent of Bangladesh's global export of jute products (or worth USD 43.8 million) in 2000; this came down to 10.6 per cent (or USD 47.7 million) in 2009. Indeed, export of jute and jute products in the EU market increased by 8.8 per cent between 2000 to 2009; however, global export had increased by 60 per cent in 2009 compared to that of 2000. In the EU market, Bangladesh gets zero MFN duty in raw jute and yarn. Other products such as sacks and bags and fabrics received duty-free treatment under the Everything but Arms (EBA) initiative of the EU, which was put in place in 1995 (as EU-GSP), revised in 2000, and came into effect as EBA from January 2001. The EU-GSP treatment is subject to fulfilment of the relevant RoO. In 2000, Bangladesh exported 51.4 per cent of the jute goods under the GSP. This share declined to 39.3 per cent during 2009. The average GSP utilisation rate for woven jute fabrics was about 97 per cent in 2000, which had

increased to almost 100 per cent in 2009. However, for sacks and bags, the utilisation rate had come down to 7.4 per cent in 2009 from 97.3 per cent in 2000 (calculated from Table 10). As the demand for natural fibres is increasing in Europe, Bangladesh has potential to increase her export of jute items by taking advantage of the GSP facilities.

Table 10: GSP Utilisation in the EU Market

HS Code	Description	2000			2009		
		Total Export from Bangladesh	GSP Utilisation	Global Export from Bangladesh	Total Export from Bangladesh	GSP Utilisation	Global Export from Bangladesh
530310	Jute and other textile bast fibres, raw or retted (excl. flax, true hemp and ramie)	2.8	n.a.	66.6	2.4	n.a.	161.7
530390	Jute and other textile bast fibres, processed but not spun; tow and waste of such fibres, incl. yarn waste and garnetted stock	0.1	n.a.	3.0	1.7	n.a.	5.0
530710	Single yarn of jute or of other textile bast fibres of heading 5303	16.1	n.a.	52.8	3.7	n.a.	83.7
530720	Multiple 'folded' or cabled yarn of jute or of other textile bast fibres of heading 5303	1.7	n.a.	8.4	20.5	n.a.	101.2
531010	Woven fabrics of jute or of other textile bast fibres of heading 5303, unbleached	12.1	11.7	56.5	8.1	8.1	25.3

(Table 10 contd.)

(Table 10 contd.)

HS Code	Description	2000			2009		
		Total Export from Bangladesh	GSP Utilisation	Global Export from Bangladesh	Total Export from Bangladesh	GSP Utilisation	Global Export from Bangladesh
531090	Woven fabrics of jute or of other textile bast fibres of heading 5303, bleached, dyed, made of yarn of different colours, or printed	0.5	0.5	1.0	0.5	0.5	2.3
560710	Twine, cordage, ropes and cables, of jute or other textile bast fibres of heading 5303,	0.5	0.5	38.7	0.0	0.0	0.3
630510	Sacks and bags, for the packing of goods, of jute or other textile bast fibres of heading 5303	10.1	9.8	53.9	11.1	0.8	70.2

Source: Trade Map Database, Eurostat Database.

Note: n.a. indicates not traded under GSP.

5.1.3 South Asia

In South Asia, India and Pakistan are the two major markets for Bangladesh's jute items. Pakistan is the largest importer of raw jute as well as one of the major exporters of jute goods. On the other hand, India is a major exporter and also major consumer of jute goods. In this context, there is a good opportunity to further strengthen Bangladesh's position in the South Asian market for raw jute and jute goods. Bangladesh is getting zero tariff in raw jute and carpet in the Indian market. For other products such as yarn, woven fabric and sacks and bags, applied tariff rate is 4 per cent. Under the South Asia Free Trade Area (SAFTA) agreement, India, Pakistan and Sri Lanka have brought down the custom duties from zero to 5 per cent by 1 January 2009. Bangladesh can now take the opportunity of zero and lower tariff to enter into the Indian market. SAARC (South Asian Association for Regional Cooperation) countries have provided sensitive list of products for which zero duty

is not allowed. India and Bhutan have not included jute items in their respective sensitive lists. Pakistan included 6305.10 (sacks and bags of jute) in the sensitive list and imposed a 25 per cent MFN tariff. Nepal included 5310.10 (woven fabrics of jute or of other textile bast fibres) and 6305.10.00 (textile bast fibre of jute) with imposition of 15 per cent tariff. Sri Lanka included 5607.10.00 (twine and ropes of jute) and had a 25.4 per cent MFN tariff. Maldives included 6305.10.00 (textile bast fibre of jute) in their sensitive list with 25 per cent MFN tariff. Raw jute, yarn and woven fabrics are the major imported items of India and Pakistan from Bangladesh. Other than these, India imports sacks from Bangladesh. Because of high MFN rate of sacks and bags, export to Pakistan has declined during 2005 to 2009 by (-) 23 per cent rate. With the MFN rate at 4 per cent in India, the growth of jute yarn, woven fabric, and sacks and bags to the Indian market had been at high rates of 43 per cent, 25 per cent and 43 per cent respectively over during the same period. Bangladesh's jute and jute item exports are about 33.6 per cent of her total exports in South Asia (USD 149.3 million).

5.2 Non-tariff Barriers

Bangladesh faces a number of NTBs which inhibit her global export. Some of these have been notified to the World Trade Organization (WTO). NTBs faced by Bangladeshi exporters could be categorised in the following broad areas:

- a. NTBs similar to sanitary and phytosanitary (SPS) measures
- b. NTBs related to consular information
- c. NTBs related to technical barriers to trade (TBT) measures
- d. Quantitative restrictions including ban
- e. Labelling requirement
- f. Rules of Origin
- g. Visa requirement

Apart from these, exporters also face obligatory compliance requirements with regard to various standards such as health, safety, child labour, working hours, wages and benefit, freedom of associations, environmental compliances, etc., which also control trade activities. With MFN tariffs coming down, NTBs are becoming more of a cause for concern than the tariff barriers. It is to be noted in this context that, Bangladesh faces NTBs with regard to yarn, twine and jute sacks in her exports to different countries.

Yarn and Twine

Bangladesh faces TBT (packaging requirement, labelling requirement, etc.), SPS, customs and administrative procedures, import licensing requirement on export of jute yarn and twine. The packaging conditions of yarn and twine require fumigation of the products by methyl bromide if wood or wooden substances are used for packing, while methyl bromide is banned in many countries (CUTS 2007). Thus packaging requirements work as barriers to export of jute yarn and twine. Requirement of SPS measures and certification requirements by some countries also curb export potentials due to additional formalities, time and cost. Jute products were not live items, and consequently, it had been argued that, the products need to be excluded from SPS regulations (CUTS 2007). Moreover, the requirement for special Certificate of Origin, packaging requirement, phytosanitary measures, requirement

of import licence by importers, additional documentation in the port of discharge for customs valuation and pre-shipment inspections (PSI) constrain Bangladesh's exports, and lead to cost escalation due to these various delays.

Jute Sacks and Woven Fabrics

Some countries have standards for jute bags which are not technically achievable, and the details relating to the standards are not also often available in English. Similarly, the requirements on using certain specified packaging materials without providing any justified reasons often acts as trade barriers. On 4 July 2010, India issued an order by which labelling or branding requirement of country of origin for jute bags was made mandatory for export to India. It also added that, labelling should be 10×8 cm machine stitched on four sides. Such labels should be fixed on both sides of the bags. This specification has caused Bangladeshi exporters to incur extra cost, and consequently will undermine her competitiveness in the Indian market. In the Cuban market, for exporting jute sacks and woven fabric of jute, sanitary authorities require certification that industrially processed jute has originated from a pest-free crop. Such testing and certification arrangements cause unnecessary hassles in accessing the Cuban market. Jute blended products require special certification depending on the percentage of jute in fabric. In Egypt, import of hessian bags must conform to the new Egyptian Standards. Import of jute-diversified products is restricted in the Iranian market. In Thailand, jute and kenaf remain subject to non-automatic import licensing. Exports to ASEAN (Association of Southeast Asian Nations) countries also face some problems. Exporters to these countries need to undertake testing of products, and have to submit certificate during the trading process. This causes extra time and costs. Sometimes trade also suffers for complex customs clarification procedures. Very often classification of products is done without appropriate justification which poses as an NTB. Often, misclassification of jute products leads to higher duties and levies. For example, export of jute bags and jute shopping bags to Malaysia face duties that are not same for the two items, even though these products were of similar nature. Exporters often have to pay higher customs duties or have to pay bribes in order to get the item classified in a manner that would impose lower custom duties. Brazil has imposed 64.5 per cent ADD which have put significant restraint on exporters, and act as both tariff barrier and NTB. To address some of these issues, Bangladesh will simply need to enhance her domestic capability. In case of others mentioned above, she should continue to pursue various multilateral and bilateral negotiations for their withdrawal. Bangladesh will also need to address the root causes of imposition of ADD in Brazil which has been justified on the ground of prices charged by Bangladesh in Brazil, even though it is lower than Bangladesh's production cost. Cost reduction through productivity enhancement should play the key role in this situation.

6. SUBSTITUTES OF JUTE IN THE GLOBAL MARKET

6.1 Natural Fibres as Substitutes

As was noted earlier, jute's substitutes are many, and these include multiwalled paper bags, polypropylene, polyethylene and other natural fibres from kenaf, hemp, sida and sunhemp, etc. As market studies indicate, polypropylene products began to intrude into the market of traditional jute products during the 1960s; their use has sharply expanded during the late

1970s and early 1980s, particularly in the developed world market. Competition of the natural fibre with synthetic materials became intensified since the mid-1970s when excess production capacity of synthetic fibres often resulted in short-term strategies to recover the direct costs, and often led to dumping. Synthetic bags, offered at highly competitive price, particularly from China, helped such products to penetrate the traditional markets enjoyed by jute (UNCTAD 1996). Gradually the market of natural fibres became occupied and substituted by polythene plastic bags.

Other alternative natural fibres of jute are kenaf, sisal, coir and abaca. Kenaf is a natural fibre that grows in Africa and in many parts of USA. Kenaf is used as a forage crop for livestock. Bast fibre is used for cordage, the stalks are used as fuel, and the leaves are consumed as vegetables. Fibres from kenaf can be used in handicraft industries. It is also used to make textiles, paper products or to produce a wide variety of composite products. Recently, some Asian countries including China, India and Malaysia have started to cultivate kenaf.

Traditionally sisal has been used in agricultural twine, thanks to its strength, durability, stretching ability, affinity for certain dyestuffs and resistance against salt water. Apart from these, sisal is used for making low-cost papers, dartboards, buffing cloth, filters, geo-textiles, mattresses, carpets and handicrafts. In recent years, sisal is being used as an environmental-friendly strengthening agent to replace asbestos and fibreglass in composite materials in the automobile industries (Wigglesworth 2008). Brazil is the largest sisal producing country in the world, accounting for about 47 per cent of the total world production. Other major countries are Tanzania, Kenya, Venezuela and Madagascar. Sisal occupies sixth position among natural fibres representing 2 per cent of world production of plant fibres.

Coir fibres are fibres of coconut. This is found between the husk and the outer shell of a coconut. White coir fibres are harvested from coconuts before they are ripe. These light brown or white fibres are generally smoother and finer but weaker. These are spun to make yarn which is used to make rope and mats. Brown coir is used to make floor mats, door mats, brushes, mattresses, floor tiles, sacking and twine. Major uses of white coir are for rope manufacture. Coir fibre industries are generally located in the coastal regions of India and Sri Lanka. India and Sri Lanka together produces 90 per cent of world's total coir production.

Abaca, which is also known as Manila hemp, is extracted from the leaf sheath around the trunk of the abaca plant. Coarse abaca fibres are used as cordage, especially for ship's rigging. Other uses of abaca are in tea bags, casing for sausages, banknotes, cigarette papers and high-quality writing paper. Recently, a novel mixture of polypropylene thermoplastic and abaca yarn is being used in automobile components, including external panels. Philippines is the major producer and exporter of abaca, which is exported in the form of pulp rather than as raw fibre.

According to Table 11, import of raw fibre has increased insignificantly between 2002 to 2008, sisal, coir and abaca fibre import increased by 13.2 per cent (2002 to 2006), 23.8 per cent and 2.5 per cent respectively; whilst import of jute and kenaf manufacture have increased by 52 per cent during this period. Demand for both raw and manufactured jute is highest among natural fibres. Demand for manufactures has declined for all the items

during the stipulated time. Jute has been used in various sectors in the industry, where natural fibres are increasingly being preferred as substitutes of plastics. These are paper, celluloid products, especially in films, non-woven textiles, composites (pseudo-wood) and geo-textiles. The year 2009 was declared as the *International Year of Natural Fibres* by the General Assembly of the United Nations which had helped focus the attention of the global community on this promising item.

Table 11: World Import of Natural Fibres

('000 Tonnes)

Natural Fibre	Raw Fibre		Manufacture	
	2002	2008	2002	2008
Jute, kenaf and allied fibre	337.4	512.7 ^a	594.2	590.8 ^a
Sisal	82.8	93.7 ^b	84.8	80.3
Coir	122.9	152.2	58.1	42.6
Abaca	28.0	28.7	27.0	35.4

Source: FAO (2008); FAO (2009).

Note: a. Data for 2007; b. Data for 2006.

6.2 Natural vs Manmade Fibres

Technological advancement and other factors contributed to the advantage enjoyed by synthetic fibres, often reflected in the latter's price competitiveness. Polypropylene is the single most important synthetic substitute for jute. The resin is derived by the polymerisation of propylene. This, in turn, is manufactured by steam cracking of naphtha (which prevails in Western Europe and Japan) or through refining natural gas liquids (USA) (UNCTAD 1996).

Table 12 shows the polypropylene chemicals and raw materials prices in the international market. Price of all kinds of raw items has increased significantly between 2004 to 2008. During the first half of 2009, oil, naphtha and propylene came down significantly. However, the price of jute continued to increase. The competition between jute and synthetic fibres varied according to products and markets. Polypropylene is more expensive than jute. At the first stage of processing chain, the price difference is more prominent; at higher stages of processing, this tends to become less important and the prices are quite similar and move more closely together. As the traditional uses of jute fibres are predominantly in the industrial sectors and not in the consumer market, buyers' choice between natural and synthetic substitutes is mainly based on certain economic considerations, mainly on price and technical characteristics of both kinds of products (UNCTAD 1996).

Other than the price difference, if the environmental impact is considered, jute and jute products have always been able to prove their superiority from the perspective of practical use. Table 13 shows the comparative environmental effects of jute and polypropylene products. Polypropylene products emit nitrogen dioxide and sulphur dioxide into the air during the production stage. At the disposal stage, it releases carcinogenic substances. Plastic trashes threaten birds and animals, and even marine lives. Sometimes it also creates

Table 12: Prices of Polypropylene, its Base Chemical, Chemical Feedstock and Raw Materials in Western Europe and USA

Item	2004	2006	2008	2009 (Jan-Jun)
Western Europe				
Crude oil - f.o.b. Dubai (USD/BBL)	38.0	65.5	97.0	52.0
Naphtha - Spot price range (USD/ton)	375.0	569.0	816.0	426.0
Propylene - Contract prices (USD/ton)	679.0	1030.0	1444.0	610.0
Polypropylene- Raffia grade (USD/ton)	1119.0	1457.0	n.a.	n.a.
United States (contract price)				
Propylene - Polymer (USD/ton)	679.0	1048.0	1304.0	607.0
Raw jute - f.o.b Mongla				
BWD (USD/ton)	293.0	380.0	468.0	524.0
BWC (USD/ton)	319.0	409.0	520.0	555.0

Source: FAO (2009).

Note: f.o.b refers to free on board.

Table 13: Comparative Environmental Impact Assessment of Jute and Polypropylene

Indicator	Jute	Polypropylene
Total energy consumption	3.75-8.02 GJ/t of fibre	84.3 GJ/t of fibre
Total CO ₂ emission	-1.6-0 t/t of fibre	3.7-7.5 t/t of fibre
Type of resources used	+ Renewable	- Non-renewable
Production stage	+ Improves soil fertility; + Reduces incidence of weeds and plant diseases; = Retting waste biodegradable, but resulting oxygen depletion in water can increase mortality of certain fish	- Nitrogen dioxide and sulphur dioxide are emitted into the air, contributing to the <i>acid rain</i> ; - Waste water and solid waste contain bio-accumulating substances like heavy metals
Transformation stage	- Petroleum-based mineral oil used in batching; = Burning production wastes generates energy, but also pollutants; - Dust and noise are major problems as regards work conditions	
Transport stage	Consumption of energy 0.19-0.27 GJ/t	Consumption of energy 3.9 GJ/t
Consumption stage	- Mineral oils used in batching tend to migrate into the foodstuff from the packaging material	
Disposal stage	+ Biodegradable, without a negative environmental impact if suitable methods are selected (composting, production of biogas); + Reusable; + Recyclable	- Carcinogenic substances released into the environment; - Plastic trash threatens farm animals, birds and wildlife; - The remains of drift nets kill marine animals

Source: UNCTAD (1996).

Notes: + stands for a positive impact;
- stands for a negative impact;
= means that findings are inconclusive.

water stagnancy in the storm water disposal line. These negative impacts of the synthetic polypropylene products have raised concerns among environmentalists in the developed world, and a powerful popular opinion has emerged in favour of use of more natural and bio-degradable products such as the jute items.

7. POLICY IMPLICATIONS

7.1 Present Policies for Jute Sector

It was noted in the earlier section that because of environmental concerns, use of artificial fibres are at present being discouraged all over the world. It appears that in the backdrop of the renewed interest in jute as an environment-friendly, bio-degradable product, it could experience a new birth. Both domestic and global policies will need to be brought to play, to realise the emerging potential opportunities for Bangladesh. Successive policies in Bangladesh have mentioned about developing and diversifying jute products. *Export Policy 2009-12* specified the jute sector as *special development sector* and mentioned about putting in place facilities in the form of loan with low interest rate, carrying goods through air at reduced rate, bond facility, facility for technological upgradation, facility for international market expansion, and initiatives to attract foreign direct investment (FDI) in this sector. It has also mentioned about undertaking a 'plan of action' to strengthen research activities and increase productivity of the jute industry, to take necessary steps to identify and minimise the obstacles in exporting jute and jute products, to popularise the use of jute by emphasising the environment-friendly qualities of jute products through Bangladeshi Missions abroad, to provide cooperation to entrepreneurs for participation in international fairs and exhibitions to explore markets, to support for design development sector to bring in diversity to jute products through technological upgradation, and to establish design development centres. *Industrial Policy 2010* has also mentioned about initiating reform measures to reactivate the closed jute industries. As a designated thrust sector, jute industries will be able to avail special incentives and financial benefits such as tax exemption, and will be excluded from double taxation. From FY2008-09, jute industries have been included in the list of industries enjoying tax holidays. From 1 July 2008 to 30 June 2011, jute goods industries are to receive taxation facility at a reduced rate of 15 per cent on their export incomes.

7.2 Recommended Policies

Taking into account major changes that are taking place in the global market and global thinking as far as the jute products and jute production are concerned, new initiatives will be required to access the potential opportunities. An appropriate broad roadmap needs to be developed towards this. Bangladesh will need to pursue a number of strategies, both short and medium-term, to regain her lost position in the global market by way of higher market share, increased consumption of jute goods, both at local and international markets, and better marketing and linkages. Both product and market diversification should be targeted based on this.

7.2.1 Short-term Strategies

Product Promotional Activities

In order to make significant inroads into the global market, promotional campaigns including marketing programmes (such as fairs) need to be undertaken in the target markets. Consumer awareness programmes should focus environmental advantages of using jute items. Bangladesh's embassies can play a key role in promoting jute products in target markets.

Support for the Small and Medium Enterprises

Small and medium enterprises (SMEs) which manufactures shopping bags and other decorative items of jute should get adequate financial as well as the technical support from the government. Development partners can also provide assistance in this regard. In India, International Trade Centre (ITC) worked with designers, market specialists, jute mills and SMEs to promote marketability of jute products. ITC helped SMEs in design of appropriate brochures and catalogues, and organising displays and exhibitions, and helped to improve the design of jute items both from aesthetic and utility viewpoints. At present, diversified jute products include about 20 per cent of the total sale of jute products in India. This sub-sector involves more than 1,000 SMEs, which have created employment opportunities for 80,000 people in India (ITC 2004). ITC and the Norwegian Agency for Development Cooperation (NORAD) have assisted industries in Bangladesh to produce high quality yarn, fabric, shoes and particle boards. Such assistance should be widened to cover SMEs producing jute items, raising quality and diversifying markets.

Increasing Market of Traditional Items

Traditional items of jute exported from Bangladesh primarily involved packaging items and floor coverings. Traditional packaging products still accounted for a major share of jute products market for Bangladesh. Some development of food grade jute bags, light weight packaging materials, sacks are made in accordance to consumers', or buyers' preference. A more proactive support was called for in order to address key concerns and demands of buyers/consumers which relate to quality, design, specifications, timelines of delivery, etc. It will be important to focus on the woven/ braided/ tufted carpets, rugs (*sataranchis*) which are enjoying growing demand in the world market at present. Technical and design support to these kinds of manufacturers will be important to meet consumers' demand. Initiatives will also need to be taken to develop markets for shopping bags and other jute-blended bags. Ensuring more use of jute for packaging of different products including food, fertiliser and cement under a packaging act could create a secured domestic market for jute. Product improvement along with proactive market promotion will play a crucial role in terms of attaining higher market share in the global market.

7.2.2 Medium-term Strategies

Removal of Trade Barriers

Tariff barriers and NTBs inhibit the export performance of a number of jute items in the global market. TBTs in jute and jute products will need to be resolved through negotiation in appropriate platforms. Concerned organisations should undertake elaborative study on technical barriers such as standards and certification system and/or produceres related to the jute sector. Attempts should be taken to resolve any dispute through the available fora such as WTO, Regional Trading Agreements (RTAs) and other bilateral negotiating platforms. Research and development (R&D) support will need to be provided to concerned institutions to develop technical hands for the purpose of certification and developing appropriate standards.

Appropriate Market Development Strategies

The task of developing local market for jute products often tends to get side-tracked and underrated. Development of local market was important for two aspects: a) enhancement of market size; and b) as a stepping stone for accessing global market by drawing on advantage of scale economies and product development. Producers of diversified products need to be informed about comparative advantage situation, cost and return, and international price and demand situation. Market development efforts, which did not receive the required attention in the past should be given due priority. Environmental concerns have encouraged many countries to legislate in favour of natural fibres. However, opportunities emanating from this have been missed due to the absence of appropriate product development strategies. Market intelligence was called for on the part of Bangladeshi exporters for competing in the global market and to negotiate with buyers. Development of new products will also create new market opportunities. A market promotion and development programme needs to be undertaken by the Government of Bangladesh (GoB) to popularise and highlight the advantages of jute and its environment-friendly nature which imbue it with distinctive advantages vis-à-vis synthetic fibres.

Improve Technical Properties and Quality

Improvement of the quality of fibre should be one of the major areas of focus in view of the new opportunities. Good quality seeds will need to be developed and their adaptation by farmers should be encouraged towards higher production and quality fibre. To improve the seed quality, production of HYV seeds, certification and distribution through the public-private partnership (PPP) channel should be the way forward. This will call for upgradation of technology at both the processing and manufacturing ends.

Market information and research

Lack of market information is one of the major drawbacks for Bangladeshi exporters. Oftentimes producers and exporters are not familiar with opportunities emerging from the growing market, they usually tend to hold on to the traditional markets. For those who intend to start new business or export a new jute item, it is often difficult to access

appropriate market information. They are not always aware about the barriers to be faced and/or advantages offered by particular markets. Bangladeshi missions and commercial wings of embassies could play a supportive role in this respect.

To get access to new markets, government should organise training and workshops for exporters with a view to improving their knowledge, disseminating information and raising awareness about potential markets and specific market particulars with regard to the demand situation. This is also important from the perspective of letting the producers and exporters know about market barriers and standardisation and certification requirements.

Encourage Research and Diversified Products

Investment needs to be made in R&D to create new and diversified applications of jute fibres. Intervention is important regarding the product design to meet international requirements. Enormous potentialities for jute exist in manufacturing and exporting of technical textiles such as geo-textiles and agro-textiles. Geo-textiles are found useful for soil conservation and road construction, though this particular use is to receive recognition as a commercially viable option. Jute can also be used for erosion control of mountain slopes, road and railway slopes and canals and embankments. Jute plants can also be used to make pulp and paper which could provide 'tree-free papers.' Being an insulating material, automobile companies are also able to use jute in the automobiles as composite materials. Jute could be blended with synthetic materials, up to a certain percentage to make plastic without changing the character. It will minimise the use of petroleum products and will reduce the cost of plastics as well. These kinds of products with large potentials need to receive special focus both in terms of product development and market promotion.

8. CONCLUDING REMARKS

As Bangladesh's performance in FY2009-10 indicates, and this has been noted earlier, growth of jute export has once again bounced back in recent times, with export of raw jute and jute goods posting robust growth rates of 32.5 per cent and 100.6 per cent respectively. She has a unique opportunity now to regain her past glory in jute in view of the emerging global market opportunities. The relative advantages of jute, as an environment-friendly and bio-degradable product have generated renewed interest in jute, creating avenues for product development and product diversification. Bangladesh ought to take advantage of this by investing in technology upgradation, skill development and market promotion. Bangladesh should design a medium-term (say ten-years) strategy in view of this. Such a strategy would need to embrace the entire range of activities starting with jute production and productivity enhancement, technology upgradation, product diversification and per unit cost reduction at manufacturing stage, and an aggressive market promotion and export expansion. Bangladesh should also pursue her interest in this connection in the various global fora, both in terms of addressing her concerns with regard to NTBs, and also with regard to promoting jute's advantages. The review and analyses in the preceding sections have examined the performance of Bangladesh's jute sector in the global market and have identified opportunities and challenges in view of the emergent situation. Both market and product diversification are important and the key to attaining both of these will be Bangladesh's ability to raise her competitive strength. In all probability the size of the global

jute market is set to grow in the coming years. Bangladesh's strategy should be to enhance her market share in the growing global market. This is not going to be easy. A number of competitors, most notably India, but also China, are eyeing to gain more market share and pursuing their interests through well-articulated strategies. However, as the analysis has indicated, Bangladesh has her strong points, and is well-positioned to build on this. If Bangladesh is to realise this window of opportunity, appropriate investment will need to be made, and incentives will need to be put in place, on an urgent basis.

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Annex Table 1: Major Markets of Raw Jute and Jute Goods Exported from Bangladesh in 2009

Product	Importer	Export Value (Million USD)	Share in Bangladesh's Export (%)	Export Quantity ('000 Tonnes)	Unit value (USD/Unit)	Export Growth between 2008-2009 (%)
530310: Jute and other textile bast fibres, raw or retted	Total	161.7	100.0	314.6	514.0	5.0
	Pakistan	52.1	32.2	96.1	542.0	-12.0
	China	46.2	28.6	94.9	487.0	9.0
530390: Jute and other tex bast fib, not spun, nes; tow and waste of these fibres	Total	5.0	100.0	8.0	618.0	5.0
	Malaysia	1.9	38.9	4.1	466.0	30.0
	UK	1.0	20.4	0.9	1139.0	-14.0
530710: Yarn of jute or of other textile bast fibres, single	Total	83.7	100.0	111.0	754.0	-5.0
	Turkey	44.0	52.5	58.2	755.0	-1.0
	India	18.0	21.6	27.4	658.0	79.0
530720: Yarn of jute or of other textile bast fibres, multiple (folded) or cabled	Total	101.2	100.0	118.8	852.0	-13.0
	Turkey	53.6	52.9	66.5	805.0	-4.0
	Belgium	17.3	17.1	20.6	842.0	-18.0
531010: Woven fabrics of jute or of other textile bast fibres, unbleached	Total	25.3	100.0	20.3	1249.0	-28.0
	Australia	5.6	22.0	4.0	1391.0	-12.0
	India	3.3	13.1	2.4	1391.0	24.0
531090: Woven fabrics of jute or of other textile bast fibres, o/t unbleached	Total	2.3	100.0	1.6		33.0
	New Zealand	0.7	29.0	0.5	1369.0	120.0
	Republic of Korea	0.7	28.6	0.6	1179.0	23.0
560710: Twine, cordage, ropes and cables, of jute or other textile bast fibres	Total	0.3	100.0	0.4	666.0	-69.0
	Indonesia	0.3	100.0	0.4	666.0	-58.0
630510: Sacks & bags, for packg of goods, of jute or of other textile bast fibres	Total	70.2	100.0	78.6		-17.0
	India	34.4	49.0	44.3	778.0	-31.0
	Indonesia	10.1	14.3	12.7	794.0	15.0
640590: Footwear, nes	Total	0.5	100.0	0.0	n.a.	285.0
	UK	0.3	70.9	0.0	9471.0	n.a.
	Italy	0.1	11.0	0.0	12500.0	19.0

Source: Trade Map Database.

Annex Table 2: Competitiveness of Bangladesh's Jute Items in the World Market in 2009

Item	Exporter	Export in 2009 (Million USD)	Share in World Exports (%)	Quantity Exported in 2009 ('000 Tonnes)	Unit Value (USD/Unit)	Annual Growth in Value between 2005-2009 (%)
530310: Jute and other textile bast fibres, raw or retted	World	184.1	100.0	367.2	501.0	16.0
	Bangladesh	161.7	87.8	314.6	514.0	15.0
	Tanzania	8.4	4.6	10.4	810.0	67.0
530390: Jute and other tex bast fib, not spun, nes; tow and waste of these fibres	World	10.4	100.0	n.a.		4.0
	Bangladesh	5.0	47.5	8.0	618.0	27.0
	Greece	1.4	13.2	0.2	7840.0	371.0
530710: Yarn of jute or of other textile bast fibres, single	World	89.7	100.0	117.0	767.0	9.0
	Bangladesh	83.7	93.3	111.0	754.0	15.0
	India	3.5	3.9	4.4	797.0	-18.0
530720: Yarn of jute or of other textile bast fibres, multiple (folded) or cabled	World	141.3	164.2	100.0	860.0	0.0
	Bangladesh	101.2	118.8	71.7	852.0	7.0
	India	27.0	32.7	19.1	826.0	-14.0
531010: Woven fabrics of jute or of other textile bast fibres, unbleached	World	93.2	100.0	64.4	1446.0	-6.0
	India	51.1	54.9	11.8	4351.0	-7.0
	Bangladesh	25.4	27.2	20.3	1249.0	-1.0
531090: Woven fabrics of jute or of other textile bast fibres, o/t unbleached	World	30.6	100.0	0.0	n.a.	4.0
	China	11.9	39.0	n.a.	n.a.	36.0
	Bangladesh	2.3	7.5	0.0	n.a.	3.0
560710: Twine, cordage, ropes and cables, of jute or other textile bast fibres	World	0.5	100.0	0.5	1052.0	-65.0
	Bangladesh	0.3	57.3	0.4	666.0	-58.0
	Indonesia	0.2	41.9	0.0	4744.0	179.0
570500: Carpets and other textile floor coverings, nes	World	1240.0	100.0	0.0	n.a.	13.0
	China	515.8	41.6	184.3	2798.0	31.0
	Bangladesh	0.1	0.0	0.0	3594.0	-3.0
630510: Sacks & bags, for packg of goods, of jute or of other textile bast fibres	World	216.1	100.0	0.0	n.a.	12.0
	Bangladesh	70.2	32.5	0.0	n.a.	21.0
	India	56.8	26.3	62.4	909.0	-1.0
640590: Footwear, nes	World	2884.0	100.0	0.0	n.a.	27.0
	China	2193.7	76.1	342.5	6406.0	39.0
	Bangladesh	0.5	0.0	0.0	n.a.	8.0

Source: Trade Map Database.

