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GROWTH AND PERFORMANCE OF INDIAN JUTE INDUSTRY

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ABSTRACT

Jute is popular for its ability to use in various forms in packaging and handicraft industry. The industry contributes greatly in the country's economy and has potential to propel the economy in coming years. It supports nearly 4 million firm families, besides providing direct employment to 2.6 lakhs industrial workers and livelihood to another 1.4 lakhs people in the tertiary sector and allied activities.

The paper is an attempt to highlight the growth of Indian jute industry in global market as well as highlighting the overall scenario of Indian jute industry in recent years. The study is based on secondary data and information.

Key Words: Export, growth, performance, jute, market.

Introduction

Jute is a natural fibre widely known as the '*golden fibre'*. It is one of the cheapest and the strongest of all natural fibres generally known for its biodegradable and eco-friendly feature. India, Bangladesh, China and Thailand are the leading producers of Jute. The jute fibre is also known as *Pat, kosta, Nalita, Bimli* or *Mesta (kenaf).*

Jute spinning was extensively practised by the natives of India, centuries before the British period. The spun of jute is used to make cordage, bedding cloth, screens, matting, and it is also used to make garments by the poorer people (Das, 1995).

The jute industry has an important and special place in the Indian economy. Jute ranks next to cotton as the most important natural fibre. Jute industry is one of the important industries which have origin of the rise of modern industries in India (Bagchi, 1983; Goyal, 1990; Datt & Sundaram, 2007; Pratihar, 2007; Pandey, 2009; Talukdar, 1987). After more than 150 years, the jute industry is now challenged by competition from different substitute's products in global market. The recession in the international markets and low awareness among consumers about its versatility and eco-friendly nature declined the jute market internationally. Yet this industry still provides a livelihood to more than 250,000 mill workers and more than 4 million farmers' families (Bagchi, 1983; Talukdar, 1987; Ministry of Textiles, GoI, 2014; Tepcon International India Ltd.; Datt and Sundaram, 2007).

The industry faced a great setback after partition in 1947 because most of the raw jute cultivation area went to Bangladesh. Consequently, many jute mills in India had closed in between 1950 to 1980 because of shortage of raw materials (Goyal, 1990; Das, 1995).

There are always significant fluctuations in the area under jute cultivation in India. As the area of raw jute production coming down as a result of it production of raw jute crop is also fluctuating in recent years. The year to year fluctuations arise out of three factors namely, (a) fluctuation in rainfall during the sowing season, (b) the average raw jute prices realized during the

previous jute season, and (c) the returns realized from competing crops during the previous season (Annual Report, 2010-11).

Objective of the Study

I. To highlight the over growth of Indian jute industry during 1950-51 to 2012-13.
II. To evaluate the overall performance of Indian jute industry focusing on production, consumption, export and import of jute goods during 2000-01 to 2012-13.

Data Source and Methodology

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

In order to collect secondary data, annual reports of National Jute Board, Indian Jute Mills Association and Ministry of Textiles, GOI have been considered. Moreover, the data published by the Directorate of Jute Development, Office of Jute Commissioner (Handloom) and Office of the Development Commission (Ministry of Textiles) have also been taken into consideration.

The relevant data have been analyzed with the help of descriptive statistics like Arithmetic Mean, Standard Deviation (SD). Further, Compound Annual Growth Rate (CAGR), Annual Growth Rate (AGR) and for trend analysis, linear least squares method have been used. Furthermore, line charts have been used for lucid presentation of the study.

Analysis and Discussions

Jute is considered mainly for packaging purpose in its early days. It is consumed mainly in the form of Hessian, Sacking and CBC. Production of jute goods since last decade has stagnated at comparatively higher level due to fall in domestic as well as in export market.

Table 1: Growth of Indian Jute Industry during 1950-51 to 2012-13

Quantity in '000 M. Tonnes

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

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

It may be clearly seen that from the above table that there are great variations in the production of jute goods. It increased from 837.00 Th. M. tonnes in 1950-51 to 1430.00 Th. M. tonnes in 1990-91, thereby recording a growth of 70.85 per cent in a span of forty years. The production declined in mid nineties. However, production of jute goods has rose to some extent till 2000-01, after than a sharp

decline had noticed in the production of jute goods in India. Moreover, export of jute goods has continuously declined since 1950's, export accounted for 727.60 Th. M. Tonnes in 1950-51 and it has came down to 185.40 Th. M. Tonnes in 2012-13.

Performance of Indian jute Industry: 2000-01 to 2012-13

India is the leading jute goods producing country in the world, accounting for about 70% of estimated world production. Bulk of the manufactured jute goods is predominantly being used in packaging purposes in domestic market (Ministry of Textiles, 2015). In recent years production of jute goods in India has been fluctuating from year to year largely because of the change in demand pattern in domestic and international markets.

The following table represents the trend and pattern of production of jute made goods in India from 2000-01 to 2012-13.

Table 2: **Trend and Pattern of Jute Goods Production in India during 2000-01 to 2012-13**

Year	Quantity (in 000'M.Tonnes)	AGR (%)
2000-2001	1624.90	--
2001-2002	1600.80	-1.48
2002-2003	1621.80	1.31
2003-2004	1571.30	-3.11
2004-2005	1613.10	2.66
2005-2006	1582.20	-1.92
2006-2007	1356.30	-14.28
2007-2008	1776.00	30.94
2008-2009	1633.70	-8.01
2009-2010	1323.30	-19.00
2010-2011	1565.70	18.32
2011-2012	1582.40	1.07
2012-2013	1591.30	0.56
CAGR	-0.16	

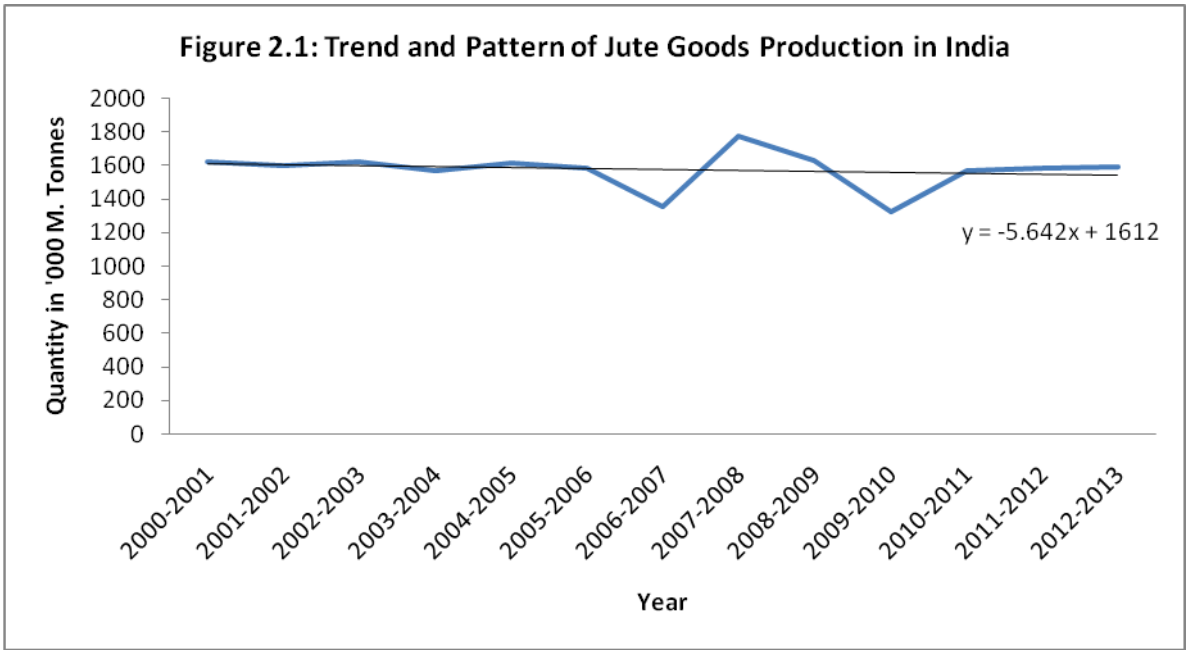
Source: National Jute Board, Annual Report, Kolkata, India, Various Issues.
Indian Jute Mill Association, Annual Report, Kolkata, India, Various Issues.

Descriptive Statistics of Table 2:

Mean	1572.52
Standard Deviation	116.27

Note: Calculated.

The trend and pattern of Indian jute goods production can be seen more clearly from the following graphical representation:



Source: National Jute Board, Annual Report, Kolkata, India, Various Issues.

Indian Jute Mill Association, Annual Report, Kolkata, India, Various Issues.

It was evident from the above table 2 that the jute goods production in India has shown a negative trend during the study period 2000-01 to 2012-13. A Compound Annual Growth Rate (CAGR) of (-) 0.16 percent can be observed over the period, 2000-01 to 2012-13. That clearly shows that jute goods production in India has declining trend over the years. Indeed, during the study period 2000-01 to 2012-13, jute goods production in India shows declining trend but it has also recovered. In the financial year 2000-01, the total jute goods production was 1624.90 Th. M. Tonnes; production has decreased slightly in the year 2001-2002 to 1600.80 Th. M. Tonnes and shows AGR (-)1.48 during the financial year. In financial years 2006-07 and 2009-10, [1356.30 Th. M.Tonnes, AGR of (-) 14.28] [1323.30 Th. M.Tonnes, AGR of (-) 19.00] respectively showing huge decline in production of jute goods in India.

Moreover, it is observed that average production of jute goods in India was 1572.52 Th. M.Tonnes during the study period having a S.D. 116.27. The production trend of jute goods clearly indicates that Indian jute industry is losing the market gradually during the study period 2000-01 to 2012-13.

Domestic consumption of jute products has accounted more than 90 per cent of total jute goods production in India. Between 2000-01 and 2012-13, domestic consumption as per cent of total jute goods production in India decreased from 92.84 percent to 78.41 percent. The decline in domestic consumption to a large extent was the consequence of the steady increase in other packaging substitutes in Indian market. After, liberalisation and privatisation the entry of other substitute's products viz., synthetics, plastic, etc. in the field of packaging market has forced down the consumption of jute goods from packaging of foodgrains and other products. India is the major producer of jute products in the world primarily due to its vast domestic market. Average domestic consumption out of total production has been around 90% (Ministry of Textiles, 2015).

The following table represents the trend and pattern of domestic consumption jute made goods in India from 2000-01 to 2012-13.

Table 3: Domestic Consumption of Jute Goods during 2000-01 to 2012-13

Year	Quantity (in 000'M.Tonnes)	AGR (%)
2000-2001	1435.10	
2001-2002	1460.80	1.79
2002-2003	1374.80	-5.89
2003-2004	1343.00	-2.31
2004-2005	1393.80	3.78
2005-2006	1377.20	-1.19
2006-2007	1216.50	-11.67
2007-2008	1543.20	26.86
2008-2009	1465.70	-5.02
2009-2010	1206.30	-17.70
2010-2011	1351.20	12.01
2011-2012	1382.60	2.32
2012-2013	1398.70	1.16
CAGR	-0.20	

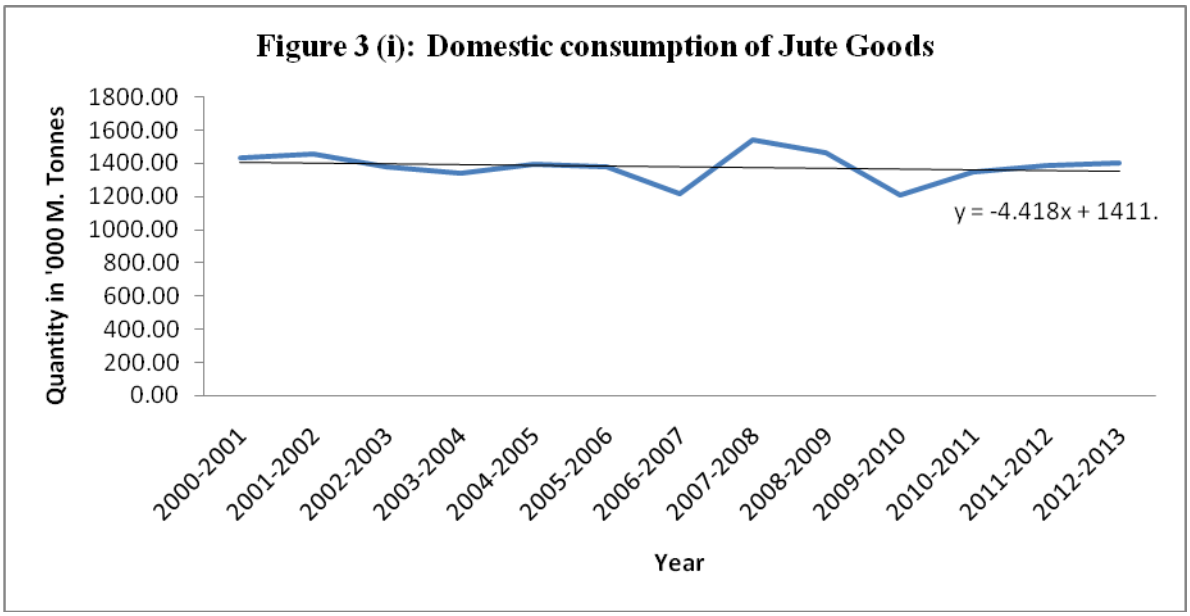
Source: National Jute Board, Annual Report, Kolkata, India, Various Issues.
Indian Jute Mill Association, Annual Report, Kolkata, India, Various Issues.

Descriptive Statistics of Table: 3

Mean	1380.68
Standard Deviation	92.75

Note: Calculated.

The trend and pattern of domestic consumption jute goods can be seen more clearly from the following graphical representation:



Source: National Jute Board, Annual Report, Kolkata, India, Various Issues.

Indian Jute Mill Association, Annual Report, Kolkata, India, Various Issues. It was found from the above table that the domestic consumption of jute goods in India has shown erratic trend

during the study period 2000-01 to 2012-13. A Compound Annual Growth Rate (CAGR) of (-) 0.20 percent can be observed over the period, 2000-01 to 2012-13. That clearly shows that domestic consumption of jute goods in India has shown declining trend over the years. In the financial year 2000-01, domestic consumption jute goods were 1435.10 Th. M. Tonnes; domestic consumption has increased slightly in the year 2001-2002 to 1460.80 Th. M. Tonnes and shows AGR 1.79 during the financial year. In financial years 2006-07 and 2009-10, [1216.50 Th. M.Tonnes, AGR of (-) 11.67] and [1206.30 Th. M.Tonnes, AGR of (-) 17.70] respectively showing huge decline in domestic consumption of jute goods.

Moreover, it is observed that average domestic consumption of jute goods was 1380.68 Th. M.Tonnes during the study period; having a S.D. of 92.75 respectively. The internal consumption of jute goods has gone downwards severely particularly during the study period 2000-01 to 2012-13. Decrease in demand has occurred mainly because of higher cost of jute goods, lesser availability of products, etc. the average annual growth rate of jute goods consumption significantly declined during the study period.

Table 4: Sector Wise Consumption of Jute Goods in Last Five Years

Quantity: in 000'M.Tonnes

Year	Foodgrains	Sugar
2008-09	820.00	123.00
2009-10	757.00	95.00
2010-11	899.00	99.20
2011-12	953.00	104.00
2012-13	1059.00	92.40

Source: National Jute Board, Annual Report, Kolkata, India, Various Issues.

As may be seen in the above mentioned table, amongst the major jute goods consuming sector foodgrains had the highest total consumption of jute goods in last five years followed by sugar industry. The following table represents the trend and pattern of export jute made goods from India during 2000-01 to 2012-13. Table 4: Export of Jute Goods from India during 2000-01 to 2012-13

Year	Quantity (in 000'M.Tonnes)	AGR (%)
2000-2001	187.00	--
2001-2002	148.20	-20.75
2002-2003	226.00	52.50
2003-2004	310.40	37.35
2004-2005	321.80	3.67
2005-2006	285.80	-11.19
2006-2007	242.80	-15.05
2007-2008	149.50	-38.43
2008-2009	162.30	8.56
2009-2010	83.80	-48.37
2010-2011	175.50	109.43
2011-2012	211.80	20.68
2012-2013	185.40	-12.46
CAGR	-0.07	--

Source: National Jute Board, Annual Report, Kolkata, India, Various Issues.

Indian Jute Mill Association, Annual Report, Kolkata, India, Various Issues.

Descriptive Statistics of Table: 4

Mean	206.95
Standard Deviation	69.25

Note: Calculated

The trend and pattern of export of jute goods from India during the study period can be seen more clearly from the following graphical representation:

Source: National Jute Board, Annual Report, Kolkata, India, Various Issues.
Indian Jute Mill Association, Annual Report, Kolkata, India, Various Issues.

The above table depicted that the export of jute goods in India has shown fluctuating trend during the study period 2000-01 to 2012-13. A Compound Annual Growth Rate (CAGR) of (-) 0.07 percent can be observed over the period, 2000-01 to 2012-13. In the financial year 2000-01, total export of jute goods were 187.00 Th. M. Tonnes; export has decreased in the very next year 2001-2002 having total export of 148.20 Th. M. Tonnes and showing AGR -20.75 during the financial year. Indeed, in the financial year 2002-03 export has shown huge growth with an AGR of 52.50. In the financial year 2009-10, export has shown huge decline with [83.80 Th. M.Tonnes, AGR of (-) 48.37] respectively. In the very next year 2010-2011 total export of jute goods has increased with an AGR of 109.43; by 2012-13, export of jute goods from India have evident lots ups and downs.

Moreover, it is observed that average export of jute goods was 206.95 Th. M.Tonnes during the study period; having a S.D. of 69.25.

Trend and Pattern of Import

India's production of jute goods always falls short of the requirements and therefore it is imported from neighbour country Bangladesh to feed the demand of domestic consumers. After 2001-02, import of jute goods has increased significantly. Import of Raw Jute in 2008-09 has dropped by 66% in quantity and by 55% in value terms, whereas import of jute products saw a surge by 23% in

quantity and by 47% in value terms when compared with the figures of 2007-08. The EXIM Policy states that import of raw jute and jute products in India should be considered as free items without duty (Business Maps of India, n.d). The following table represents the total imports during 2000-01 to 2012-13.

Table 5: Total Import of Jute Goods during 2000-01 to 2012-13

Year	Jute products (in 000'M.Tonnes)	AGR (%)
2000-2001	102.73	--
2001-2002	86.52	-15.78
2002-2003	141.14	63.13
2003-2004	117.64	-16.65
2004-2005	118.15	0.43
2005-2006	213.24	80.48
2006-2007	155.29	-27.18
2007-2008	229.49	47.78
2008-2009	129.98	-43.36
2009-2010	195.68	50.55
2010-2011	174.27	-10.94
2011-2012	301.14	72.80
2012-2013	301.96	0.27
CAGR	8.65	

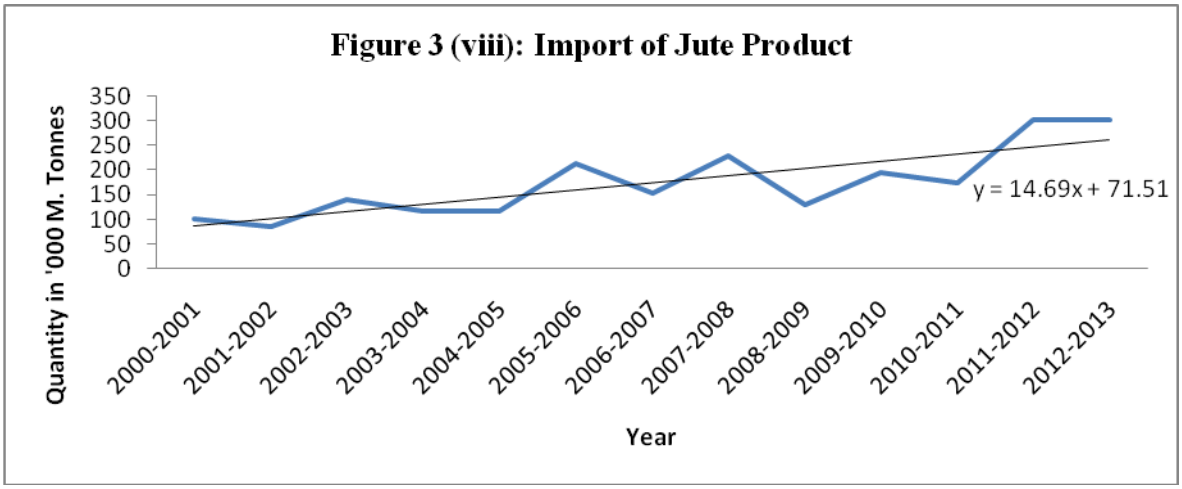
Source: National Jute Board, Annual Report, Kolkata, India, Various Issues
Indian Jute Mill Association, Annual Report, Kolkata, India, Various Issues

Descriptive Statistics of Table: 5

Mean	174.40
Standard Deviation	70.72

Note: Calculated

The trend and pattern of import of jute goods can be seen more clearly from the following graphical representation:



Source: National Jute Board, Annual Report, Kolkata, India, Various Issues.

Indian Jute Mill Association, Annual Report, Kolkata, India, Various Issues.

It was evident from the above table that the import of jute goods has shown a positive trend during the study period 2000-01 to 2012-13. A Compound Annual Growth Rate (CAGR) of 8.65 percent can be observed over the period, 2000-01 to 2012-13. That clearly shows that import of jute goods has upbeat trend over the years. In the financial year 2000-01, the total import of jute goods was 102.73 Th. M. Tonnes; import has decreased slightly in the year 2001-2002 to 86.52 Th. M. Tonnes and shows AGR (-)15.78. It has shown a positive trend of imports since 2002-03, and ended with 301.96 Th. M. Tonnes with AGR of 0.27 percent in financial year 2012-13.

Moreover, it is observed that Average import of jute goods in India was 174.40 Th. M.Tonnes during the study period; having a S.D. of 70.72.

Reasons for increase in import jute

After partition in 1947 most of the jute growing areas become part of the Bangladesh and most of the jute mills are in India. Since then, Indian jute mills are facing shortage of raw material year after year and resulted to closure of many jute mills in the country. After few years Indian industries start importing raw jute from Bangladesh to meet the requirements of the mills. The following are the main reasons of import of jute goods:

i) **Quality**: Raw jute produced in Bangladesh is much finer in quality than jute produced in India. This is one of the major reasons for import of raw jute from Bangladesh.
ii) **Lower cost**: Raw jute from Bangladesh is available at lower cost than jute produced in India.
iii) **Withdrawal of Import duties from jute**: Government has withdrawal import duties from import of jute from Bangladesh, which attract the jute goods manufacturers.

Conclusion

It is found that the overall performance of the Indian jute industry has been gradually declining during the period 1950-51 to 2012-13. The performance has declined over the years and at the same time export of jute goods has shown negative trend, which indicates that the demand of jute goods has declined in the international market over the years. Due to low production, higher cost and heavy competition from other substitutes to jute in world market has fallen down the demand of jute products in the global market. It has also been found that import of jute goods has increased during the period 2000-01 to 2012-13, it is because of Indian producers are not able to produce good quality of products and at the same time they are not in a position to meet the domestic demand too. Therefore, in order to meet the demand of consumers Indian government and other agencies are bound to import jute goods from other countries, primarily from Bangladesh.

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Product Diversification Strategies of Indian Jute Industry

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Abstract—*Jute is one of the major industries in the eastern region of India, particularly in West Bengal. Jute-the golden fibre, is a natural, renewable, biodegradable and ecofriendly product that meets all the standards of safe 'packaging' in this era when the green marketing concept is gradually emerging in India.*

Government has given priority to the revival and development of the jute sector in its policy matrix. The aim is to develop new generation, cost competitive and performance, effective jute and jute blended products through upgradation and spinning and weaving technology to achieve higher rate of product improvement, modernization and diversification of product mix towards value added items. Besides attention is directed towards promotion of packaging material for conventional and new end-users with emphasis on biodegradable and ecofriendly attributes of jute as a natural fibre so that the jute industry does not depend primarily on mandatory packaging.

The paper is an attempt to find out the challenges faced by the Indian jute industry in the recent time and opportunities utilized by the jute producers using different product–diversification strategies. The study is an exploratory one and mainly based on the secondary sources of data and information.

Keywords: *Jute, biodegradable, product mix, product diversification, new product development.*

INTRODUCTION

Despite its fortune on decline, jute is an emerging niche market with plenty of opportunities for growth and the future of jute lies in its scope of work. Twenty-first century witnessed a new resurgent and resolute Indian industry in terms of volume as well as in quality. India has become a hub of not only Information Technology, Textile, Bio-Technology but also of Leather, Automobile and other Industries. India experienced the economic growth of 8–9% per annum. The progress of industry has not been achieved overnight but it is the effect of sustained and gradual efforts by the government & its associate bodies. (Sharma *et.al.*, 2009)

The Jute Industry occupies an important place in the national economy. It is one of the major industries in the eastern region, particularly in West Bengal. It supports nearly 4 million farm families, besides providing direct employment to 2.6 lakh industrial workers and livelihood to another 1.4 lakh people in the tertiary sector and allied activities. The production process in Jute Industry goes through a variety of activities, which include cultivation of raw jute, processing of jute fibres, spinning, weaving, bleaching, dyeing, finishing and marketing of both raw jute and its finished products. The Jute Industry is labour intensive and as such its labour-output ratio is also high. In spite of various difficulties faced by the industry, capacity utilization is around 75 per cent.

JUTE INDUSTRIES IN INDIA

The Indian Jute Textile Industry has developed in Bengal along Hooghly River from Cottage industry level in which forms it was an indigenous industry before the 19th century. The first Jute Mill was established at Rishra, on the River Hooghly near Kolkata, in 1855 by Mr. George Auckland. Mr. George Auckland brought jute spinning machinery from Dundee (U.K). Since then the jute industry has flourished continuously till partition of British India in 1947. During this period at one stage it was employing 3.44 lakh persons and has installed 14.45 lakh spindles and 68, 600 looms. Partition of Indian sub-continent was the turning point in the history of Indian jute industry when India had all the 112 jute mills with meager raw jute production and Pakistan had not a single jute mill but with almost all major jute producing areas. *(Goyal, 1990)*

There are 79 composite jute mills in India. Out of the total 79 jute mills, 62 jute mills are located in West Bengal, 3 each in Bihar and Uttar Pradesh, 7 in Andhra Pradesh, and 1 each in Assam, Orissa, Tripura and Chattisgarh. Ownership-wise division is: - 6 mills are under Government of India's P.S.U., 1 mill (Tripura) is under State Government, 2 mills (Assam & New Central) are in the co-operative sector and 70 are privately owned mills. *(Annual Report on Jute 2010–11)*

JUTE PRODUCTS

BASIC PRODUCTS

Basic Jute products fabrics produced in jute mills in India are of standard constructions classified as the following:

1. Hessian Cloth
2. Sacking Cloth
3. Jute Yarn and Twines
4. D.W. Tarpaulin
5. Canvas

Hessian Cloth

Hessian cloth is a finer quality jute fabric, a plain woven fabric of 5 to 12 ozs, a yard. Hessian is also called Burlap. Hessian cloth is used for a wide range of applications and is exported all over the world both in cloth form and in the form of bags. Bags are used to store and pack varieties of goods and commodities such as pulses grain, potato, onion, sugar and tobacco. The bags are available for packing goods up to 60 kg. of weight.

Sacking Cloth

It also known as heavy goods, made from lower grades of jute fibres. Sacking is heavy, loosely woven cloth in plain or twill weave, weighting from 15–20 ozs per yard of [illegible] widths. Sacking cloth is used for jute bags to pack food grains, sugar and Cement etc. in a weight range from 50 to 100 kg. The different qualities of this category are A. Twill, B. Twill, hy Cees, D.W Flocer, Cement Bags etc.

Jute Yarn and Twines

Jute Yarn manufactured is consumed by jute mills in fabric and twine manufacture. Fine Yarn is manufactured exclusively for export purpose and utilised for making jute blended fabrics, diversified jute goods ropes and decorate wall covering.

Jute Twine is varying weights and thickness is extensively used in India and abroad for sewing, tying and other industrial applications.

D.W. Tarpaulin

Tarpaulin is used mainly for coverings on a multidimensional scale.

Canvas

Canvas is the finest jute product, closely woven with best grades of fibre. Jute canvas is widely used in India for protection from weather. Canvas and Screin lamination with paper polythene is used in mines.

DIVERSIFICATION OF JUTE GOODS

The National Centre for Jute Diversification (NCJD) was registered in January 1992, under the Societies Registration Act, 1860 and established in June 1994, under the Chairmanship of Secretary (Textiles) to give a focused attention to the diversification efforts of the jute sector. NCJD consolidates R&D results of various institutes in jute and textiles and transfer these to the entrepreneurs for commercial production. It co-ordinates with various agencies and helps the entrepreneurs in arranging, technical, financial and

infrastructural support and encourages them to take up production and marketing of jute diversified products.

The JPM Act provides an assured market to the jute used in packaging due to which, 60% of the market for jute products is sacking. The government shall endeavour to reduce the dependence of the industry on sacking by on one side gradually reducing the level of reservation, while on the other promote and develop markets for non-traditional products such as geotextiles, composites etc. The government shall further promote marketing of jute diversified products such as carry bags, furnishings, etc. In the interest of equity, inclusive growth to the rural economy and artisans, the government shall intensify its support to Small and Micro-enterprises, NGOs and SHGs that produce & market jute diversified products. They would be developed to be substantial consumers of non-sacking jute products, and thus provide alternate market for jute products. (Annual Report, 2010–11)

The industry, which in the past mainly focused on packaging sacks used by the cement and sugar industries, is gearing up for a complete makeover, with a range of designer merchandise, including school bags carried by millions of children.

Recently, the Ministry of Textiles sponsored an exhibition to highlight the jute products and jute garments. A fashion show highlighted jute as a fashion connoisseurs exporters and traders. The fashion show displayed a wide range of garments for men and women designed for domestic as well as international markets. The fabrics unique texture and fall were appreciated and attracted many individuals, buyers and boutique. Prabha Mohanty a famous designer has pioneered the use of jute into high fashion garments. She says that Jute's natural golden colour is its main asset. Besides it has high tensile strength, and can be used to replace other material like polyfibers.

Like Prabha Mohanty other designers are picking up the fibre and using it superficially. The designer range for men is suited to meet the most exciting and sophisticated standards of the consumer. Jute is presented in the most natural look for the men. Soft pleats and high waists are in for Trousers made of blended jute in muted colours.

In order to make sophisticated products like fashion garments, jute needs to be blended with fibres like wool, nylon, rayon, acrylic or polypropylene. These blends enrich the fibre in feel, appearance, durability, resilience and wash ability. As far the cost factor, jute being one of the cheapest fibers available in India. High profile designers like Ashis Soni and Mumbai's Pawan Aswani have featured jute ensembles on fashion show as at the Lakme India Fashion week 2000 and International fairs in Dusseldorf, Germany.

The National Institute of Fashion Technology (NIFT) has also participated in many fashion show in association with the Institute of Jute Technology and 'India's premiere only natural fabrics store', Mumbai, patronesses jute creation to a large extent.

In view of challenge faced from cheaper prices of synthetics substitutes, more thrusts have been given on diversification of jute products. Now the thrust areas of value aided diversified jute products are:

1. Jute handlooms and handicrafts, woven and industrial application, jute rigid packaging, reinforced plastic, composite jute, decorative and Geo-jute and other hundreds of products. Jute based fabrics used particularly in areas of furnishing, upholstery, blankets and other home textiles. Prominent product through various research institutes are: Hydrocarbon free jute products for packing food grade products as food grade bags based on RBO Technology was developed by IJIRA fully conform the international standard.
2. Dref spinning system technology was developed by R&D institutes.
3. Production of jute blended yarns with jute as the major component-using jute/acrylic, and jute/cotton was star lied.
4. Production of fine blended yarns using jute/cotton, jute/silk, jute/wool etc. was started with intensive R&D efforts.

UNDP and Government of India National jute program has facilitated diversification of jute sector by developed new technology. The UNDP program provided west employment opportunities by encouraging new entrepreneurs to set up production units. National Centre for Jute Diversification is a nodal agency for promotion of jute diversification through commercialisation of technologies. NCJD creates awareness about jute, promoting market for jute diversified products, provides necessary raw material, design support, skill development training and other services. NCJD operates various schemes to assist entrepreneurs, craft persons, artisans, buyers and NGOs in order to promote jute and jute diversified products. Jute diversification products are also promoted by IJIRA, JMDC, IJMA and other R&D institutes.

DIVERSIFIED JUTE PRODUCTS

Bags

Shopping Bags are made from hessian or sacking cloths with handles, straps, chains in different shapes and dimensions. They are used specially for marketing. They are bleached and decorated with different artistic designs. Promotional bags are generally sample bags to promote items for sale. Polylined / Polylamined bags are hessian or sacking bags with a coated polythene film.

A wonderfully designed handbag can draw a natural attention of the people around. Only a branded logo is no more capable of attracting other's attention. Rather craftily woven handmade bags are there in trend these days. They are most eye-catching accessories hanged under your arm. A handbag that has been crafted in skin friendly material exquisitely designed and having a stylish look with affordable prices is what every fashion freak desires. Nowadays in the markets various varieties of these bags are available at reasonable rates.

The versatile Jute fibre is now being used to create exciting new products, the most popular one are Hand Bags, Shopping Bags, Luggage Bags, Wallets, Casual Bags and Fashion Bags.

Home Textiles

- Table cloth, cushion covers, sofa covers, bed covers, curtain cloth, table mats, prayer napkins, aprons, blankets etc. are made of jute or jute in combination with other textile fibres
- The fabrics are strong, durable, light and colour-fast, attractive and cheaper than most fabrics made from other fibres.
- They are free from health hazards and also excellent raw materials for ladies 'bags, travel kits, school bags, file bags, shopping bags, hold-all, shoe covers etc.

Hydrocarbon Free Jute Cloth

It is a hessian fabric free from the presence of hydrocarbon. It is made by treating jute with vegetable oil. These types of bags are extensively used for packing of coffee, cocoa, peanut beans or other food material. The bags are free from any kerosene smell.

Jute Handicrafts and Novelties

A large number of tiny units especially in rural areas are engaged in creating beautiful handicrafts, novelties and gift items made of jute. Being a bio-degradable and renewable nature fibre, jute handicrafts and novelties are in great demand. Jute based handicrafts and novelties vary from toys, table lamp, wall painting, pencil box, and innumerable splendid gift items. They have a huge export potential.

Decorative Items

Several decorative items, toys, wall hanging, paper, decorative bags, table lamps, furniture, and many more is made from jute fabrics.

MARKETING SCENARIO OF INDIAN JUTE INDUSTRY

The continuous decline in Indian jute industry, both in domestic as well as in export market, raises some important questions:

1. What are the major marketing problems faced by the Indian jute industry?
2. How Indian jute industry has actually performed in the marketing front in recent years?

Till 1947 Indian jute mills dominated the world jute market with70% of its products finding place in the global market. It was after the partition of in 1947 when almost all jute producing areas went under East Pakistan (Bangladesh) causing decline to Indian jute market. At the same time, jute consuming nations switched to bulk handling systems and developed alternate synthetic packing materials. Two other issues faced by Indian jute industry were:

a. Dependence for raw jute on Bangladesh.
b. Rapid decline of export market.

Gradually, jute goods exports declined by 30 from70%.In spite of constraints, jute goods production showed a gradual increment. In 1947, the total production was 10 lakhs MT and the same figure was 16.2 lakhs MT in 2003. In five decades, Indian jute industry expanded by 62%.

In recent times *plastic bags* substituted jute bags and thus jute was in verge of extinction. In order to revamp jute industry, in 1987 Government of India reserved the packing of traditional commodities, viz., sugar, food grains with jute material by proclaiming the mandatory Jute Packaging Material Act (JPMA) 1987. Today JPMA is restricted to 100% coverage for sugar and foodgrains, which is the main bread earner for the industry. Now, in the face of multidimensional threats this industry is again confronted with danger of extinct. *(Sharma, Kaushik and Chaterjee, 2009).*

The marketing of raw jute has far long suffered from several inadequacies. A number of commissions and committees have examined jute marketing problems and suggested remedial measures. Sporadic attempts have also been made to tone up the marketing arrangements. It is, however, increasingly becoming clear that all have only touched the fringe of the problem.

Marketing of raw jute and jute made products continuously suffering from various handicaps. Domestic supplies continue to fluctuate from year to year, jute growers do not feel secure of getting a remunerative return for their investment and marketing system is beset with several perfections. *(Rao and Ramaswamy, 1974).*

Indian jute industry is being competed out of international markets because of high prices. Thus, in the last few years, jute industry has not fare well. The output of jute textiles had either declined or had remained stagnant and exports to have been declining since1980–81. This fall in exports was owing to recession in the developed countries, competition from *synthetic* substitutes. *(Datt and Sundaram, 2007).* The production of jute goods during 1995–96 (19.3 lakhs tones) [which fell by 4.8% from the previous year] was lower than the eighth plan target of 16 lakhs tones per annum. This was mainly due to decreases in demand both in domestic and international markets, stiff competition from synthetics, decreased capacity utilization etc. *(Sharma, 2010).* Due to unfavorable trading conditions and partly due to tradition of policies followed over a number of years, such industries tend to be slow to adapt themselves to the fast changing scenario in the international and domestic markets. *(Pal and Chakraborty, 2011).* The principal use of jute in spite of diversification of its products is as packaging materials and as carpet backing. The principal competitor of jute in these uses is *polypropylene*, which is derived from mineral oil-a non-renewable resource and whose extraction imposes various environmental costs. Second, *polypropylene* is biologically non-degradable and hence poses a major environmental hazard especially in developing countries with poor sewage and public sanitation. Yet this material is used in many countries, including India, as alternative packaging material because it is cheaper and because the oil lobby is much stronger than the poor jute growers of India and Bangladesh. *(Das, 2011).*

In International market jute from Bangladesh is superior in quality and cheap. A number of substitutes for jute like, plastic, paper, etc. are offering stiff competition so as to reduce the demand for jute goods in the international market. *(Raja).* In recent years, since 2001 the Indian jute industry had

persistently declined in average raw jute area of production over the years. The following table below shows the trends of raw jute production in recent years:

Table 1: Production of Raw Jute in India

Year (April-March)	Crop (Lakh/ MT)	Area(Lakh/ Hectare)
2001–02	16.2	10.49
2002–03	19.8	10.21
2003–04	16.2	9.59
2004–05	13.5	9.16
2005–06	15.3	8.96
2006–07	18.0	9.49
2007–08	17.82	9.71
2008–09	14.76	9.25

Source: Annual Report 2010–11, Ministry of Textiles, GOI

Raw jute is an important *cash crop* to the farmers. The area under jute cultivation and crop size from 2001–02 onwards is given at the table 1.

There are always significant fluctuations in the area under jute cultivation in India. As the area of raw jute production coming down as a result of it production of raw jute crop is also fluctuating in recent years. The year to year fluctuations arise out of three factors namely, (a) fluctuation in rainfall during the sowing season, (b) the average raw jute prices realized during the previous jute season, and (c) the returns realized from competing crops during the previous season (Annual Report, 2010–11). In financial year 2001–02 the area under jute cultivation was 10.49(lakh hectare) and the crop size was 16.2 (lakh MT). Table 1 clearly highlights that the area under jute cultivation is declining year after year and because of these reason the crop size is also fluctuating.

India is the largest producer of jute goods in the world, while Bangladesh is the largest cultivator of raw jute. The cultivation of jute in India is mainly confined to the eastern states – West Bengal, Bihar, Orissa, Assam, Tripura, Meghalaya and Uttar Pradesh. Nearly 50 percent of total raw jute in India alone figures in West Bengal *(www.worldjute.com)*. The table below highlights the production trend of jute goods from 2001–02 onwards:

Table 2: Production of Jute Goods

(QTY. In '000'MT)

Year(April-March)	Hessian	Sacking	CBC (Carpet Backing Cloth)	Others	Total
2001–02	275.3	1034.0	5.0	286.5	1600.8
2002–03	338.3	1000.0	4.7	278.8	1621.8
2003–04	305.2	979.3	4.7	282.1	1571.3
2004–05	310.3	992.0	4.0	306.8	1613.1
2005–06	320.0	1007.5	6.2	248.5	1582.2
2006–07	250.3	874.7	2.9	228.4	1356.3
2007–08	350.3	1143.0	6.0	277.0	1775.9
2008–09	297.8	1071.4	4.1	260.4	1633.7

Source: Annual Report 2010–11, Ministry of Textiles, GOI

In 2001–02, total production of jute goods was 1600.8 (th.MT). By 2008–09, total production rose satisfactorily. In the financial year 2006–07, there was a great fall in the production of jute goods; in this particular financial year Indian jute industry measured a heavy decline in production of jute goods due to various reasons.

The tables below show the domestic consumption of jute goods and the actual export of jute goods from India in recent years:

In fact, table-3 points out clearly that, by the year 2001–02 to 2005–06 domestic consumption of jute goods was satisfactory. In the financial year 2006–07 it was measured a great fall in the consumption of jute goods is because of lesser amount of production in this particular financial year. After then, the consumption of jute goods was much more satisfactory.

Table 3: Domestic Consumption of Jute Goods

(QTY. In '000'MT)

Year(April-March)	Hessian	Sacking	CBC	Others	Total
2001–02	243.0	1021.4	0,9	195.5	1460.8
2002–03	251.3	954.8	1.9	165.7	1373.7
2003–04	253.3	910.0	0.9	178.7	1342.9
2004–05	244.8	972.4	0.5	176.7	1424.1
2005–06	237.6	974.2	0.7	165.3	1377.8
2006–07	209.1	854.4	0.5	152.7	1216.2
2007–08	271.4	1101.9	1.4	168.6	1543.3
2008–09	249.8	1043.0	0.3	142.5	1435.6

Source: Annual Report 2010–11, Ministry of Textiles, GOI

Table 4: Actual Export of Jute Goods from India

(Value: Rs. In Crorers)
(QTY.'000'MT)

Year (April-March)	Total Export	
	QTY	Value
2001–02	146.1	567.52
2002–03	229.2	916.67
2003–04	310.5	1051.88
2004–05	321.8	1146.90
2005–06	285.8	1186.24
2006–07	242.8	1055.16
2007–08	204.3	1143.57
2008–09	199.8	1216.16

Source: Annual Report 2010–11, Ministry of Textiles, GOI

Table 4, highlights the actual export of jute goods from India in recent years, in 2001–02 the total quantity of export was 146.1('000'MT), but after then it was witnessing rapid expansion in demand of jute goods in the International market till 2004–05. By the year 2005–06 the total quantity of export measured declined till 2008–09.

OPPORTUNITIES OF INDIAN JUTE PRODUCERS

1. In many areas Indian Jute industry is ahead of other jute producing and manufacturing countries viz.
   a. It has learned how to upgrade a lower grade fibre in the batch mix.
   b. It also leads in diversified value added products.
2. The Government at the centre and at state has pro-jute mindset. They have plans for taking jute industry to new horizon. This is evident from National Jute Policy 2005 which targets to reach export Rs 5,000 crores in the 11th fine year plan from present amount of Rs 1,000 crores.
3. Brazil is one of the major importers of Indian Jute, and is estimated to have a market of 25,000 tonnes of foodgrains, and few of Indian jute bag producers have been awarded zero duty which opens new doors to other industry producers.
4. Industry should accomplish Total Quality Management so as to build quality in the products. *(Textile Trend, 2008)*

THREATS FACED BY INDIAN JUTE INDUSTRY

1. One of the major threats faced by Indian jute industry/producers is from Bangladesh Jute industry, which is armed with 7% cash subsidy on all items of jute products without any string.
2. Withdrawal of Export Subsidy Assistance (ESA) from 1 April, 2007 has been a setback to the export of Indian Jute industry.
3. The Union Cabinet Committee for Economic Affairs (EA) has approved the continuation of Technical Upgradation Fund Scheme (TUFS) for next 5 year plan 2007 – 12 for Indian Textile industry including jute industry. The size of investment is projected at Rs 1,506 crores for this

period but it is understood that jute sector may not get its due share from TUFS money, particularly for jute machinery modernisation and for upgrading technology. *(Textile Trend, 2007)*

4. The Department of Food and Public Distribution (DFPD) has issued orders for packaging paddy and coarse grains in used gunny bags which is a violation of Jute Packaging Material Act, 1987, which is considered as threat by jute industry.
5. As the *synthetic lobby* is gaining power there is a pressure on government to dilute jute reservation norms from existing 70% to 30% for grains and from 75% to 25% for sugar. Though the government has not made the revision yet, this pressure on government is a threat to jute industry.
6. Recent government decision to withdraw 10% import duty on jute and jute products to nil with effect from January 1, 2008, is seen as a threat by the industry. *(Textile Trend, 2008)*

CONCLUSION

The future of jute lies in its scope of work. A detailed research by government organisations like JMDC, NCJD, IJIRA and Institute of Jute Technology, Research Scholars and students in the following areas like Survey on Raw Material, Survey on Fibre and Survey on Marketing need to be undertaken. Research on cultivation and marketing of jute, jute fibre, jute promotion and jute blended products is required to be done, not merely to enhance the sphere of jute but also to give the industry a new zone to expand.

The Indian jute industry is having lots of opportunity by its side; it is not only one of the oldest industries of India but also among the major employer of the nation. There are a lot of strengths and also much opportunity to grab them but it could only be done if it overcomes its weaknesses and threats. Jute, the golden fibre, has a potential of reaching the height where it used to be in the past, but it is only possible through constant efforts by government and a proper follow-up by the industry. After all, converting your threats into your opportunities is the success mantra for the millennium.

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JUTE OFFICES AND FIRMS VISITED DURING THE STUDY PERIOD

JUTE OFFICES AND FIRMS	ADDRESS
National Jute Board	71, Park Street, A.J.C. Bose Road, Park Street area, Kolkata, West Bengal-700016, India.
Indian Jute Mill Association	6, Netaji Subhas Road, Dalhousie, Kolkata, West Bengal-700001, India.
National Jute Manufacturers Corporation Ltd.	Chartered Bank Buildings, 2nd Floor, 4, Netaji Subhas, Kolkata, West Bengal-700001, India.
Tripura Jute Mills Association	Hapania, Badarghat, O.N.G.C, Agartala, Tripura-799014, India.
Budge Budge Co. Ltd.	16a, Brabourne Road, 9th Floor, Brabourne Road, Kolkata, West Bengal-700001, India.
Premchand Jute & Industries Pvt. Ltd. Premchand Geo-Textiles Ltd.	16, Brabourne Road, China Bazar, Barabazar Market, Kolkata, West Bengal-700001, India.
Agarpara Jute Mills Ltd.	21 A, 3rd Floor, Shakespeare Sarani Road, Kankaria estates, Park Street area, Kolkata, West Bengal-700017, India.
Gloster Jute Mills Ltd.	21, Strand Road, Kolkata, West Bengal-700001, India.
Dalhousie Jute Co.	27, R.N. Mukherjee Road, BBD Bagh, R.N. Mukherjee Road, Kolkata, West Bengal-700001, India.
Angus Jute Works	9, India Exchange Place, 3rd Floor, Kolkata, West Bengal-700001, India.

Kamarhatty Co. Ltd.	16 A, Brabourne Road, Kolkata, West Bengal-700001, India.
Hukumchand Jute Mill	10 Clive Row, Kolkata, West Bengal-700001, India.
New Central Jute Mills Co. Ltd.	18 A, Brabourne Road, Kolkata, West Bengal-700001, India.
National Jute Mill	18 A, Brabourne Road, PNB House, Kolkata, West Bengal-700001, India.
Hooghly Mills Co. Ltd	10 Clive Row, 3rd Floor, Kolkata, West Bengal-700001, India.
Naihati Jute Mills Ltd.	7, Hare St. , 7th Floor, Kolkata, West Bengal-700001, India.
Bowreah Jute	10 Clive Row, Kolkata, West Bengal-700001, India.

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- ***Product Diversification Strategies of Indian Jute Industry***, International Conference on Marketing Paradigms in Emerging Economies (ICOM)- December 4th -5th,2012, organised by the Faculty of Management Studies, Banaras Hindu University, Varanasi, India.
- ***Customer satisfaction towards diversified jute products: A study on Silchar Town of Assam***, 66th All India Commerce Conference of The Indian Commerce Association, held at Department of Commerce, Bangalore University, Bangalore, from 5th to 7th December, 2013.
- ***Jute industry and its Implications on the economy of North-East India***, National Seminar on Development Policy for North- East India: Rationale, Initiatives and Impact, organised by Economic Science Society of Tripura (ESSOT) in Collaboration with Department of Management, Tripura University, held at the Tripura University City Centre on 8th March, 2014.
- ***Human Development and Jute Farmers in India***, International seminar on Human Development and the Marginalised Sections in North East India: Issues, Challenges, Way Forward, organised by Centre for Studies in Human Development and Equal Opportunities Cell, Assam University, Silchar, dated: 18th to 20th March' 2013.
- ***Marketing of Jute Products: A Study on Indian Jute Industry***, National Seminar on Contemporary Issues in Business Education & Research, organised by Department of Commerce, Assam University, Silchar, 6th October, 2015.

WORKSHOP ON RESEARCH METHODOLOY

- Workshop on Research Methodology in Social Sciences, organised by Department of Economics, Assam University, Silchar (Sponsored by Indian Council of Social Science Research, New Delhi), from March 6- March 15, 2013.
- Workshop on Researchers' Hands on Training in Microsoft Excel, organised by Department of Statistics, Assam University, Silchar, from 22nd to 24th of December, 2015.