

# ECOFRIENDLY AND SUSTAINABLE JUTE LIFE STYLE PRODUCT AND ITS IMPACT ON ENVIRONMENT

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## **Abstract**

Social life style changes by natural environment. Society has to accept the concept of sustainable product. Gradually society has become increasingly aware of the use of sustainable and eco-friendly products. Sustainable product means Recyclable, Refillable, Ozone friendly, environmentally friendly products. Though synthetic fibers continue to dominate the market till now, natural fibers such as jute are expanding their presence in industries and households as well. Jute is one of the natural fibres that have been proposed widely to use for its eco-friendly feature. Bangladesh is known as the country of golden fiber, as because high quality of Jute production, which is incredibly sustainable and bio degradable. People now use jute diversified life style products replacing synthetics products for the concern of environment. In this paper I will try to find out new flare of diversified jute product which is ultimately fashionable and comfortable for user.

## **1.0 Introduction**

We know that environmental issues influence all human activities. A society always concerned with the natural environment and influences to change its activities by natural environment. People are showing great affinity, when take a life style products or commodities that are environment-friendly, eco-safe, recycled, exposing less footprint to environment and labelled as green materials; this tendency is welcoming environmental sustainability. Commercially sustainability could refer to the long existence or durable service; but for environmental concern, the possible safest use and replenishment of natural resources, disposal of the finished products followed by production are to be taken into account; because environment is to undergo every possible impact for every period of product's existence.

Jute is one of the natural fibers that have been proposed widely to use for its eco-friendly features. The higher demand of biodegradable fiber, people now use jute made products. This is a shiny natural bast fibre of vegetable origin that contains cellulose fibrils and non-fibrous ground constituents like lignin, Hemicelluloses.

## **2.0 Objective**

General objective of this study is:

Intend to analyze the impact of the use of ecofriendly jute diversified life style fashion product in our environment and awareness of our natural environment.

## **3.0 Feature of Jute for making life style products**

Jute is extracted from the stem of two different plants, *Corchorus capsularis*, which is used to make white jute and *Corchorus Olitorius* used to make tossa jute.

Jute exhibits many inherent advantages like

- Long staple lengths
- Luster
- High tensile strength
- Moderate heat and fire resistance
- It has insulating and anti-static properties.
- This fiber can be spun into yarn to produce fabric or can be converted to non-woven textiles.

#### **4.0 Application of jute as a Life style product**

Jute applications are nearly endless. It's a very versatile fiber as it can be used independently or blended with a range of other materials. As a lignocellulose bast fiber jute possesses hard and harsh qualities, which make it difficult to produce apparel and other fancy fabrics to use in our day-to-day life.

#### **4.1 Jute as Fabric**

Nowadays, many investigations are being carried out to develop jute blend quality as required at some extent using newly introduced treatments and blending processes. Successful researches are being conducted for yielding improved quality jute-ramie, jute-silk, jute-cotton, jute-viscose, jute-acrylic and jute-polyester blends.

Jute-Cotton blend is one of the possible options to reduce the dependability on the cotton. The aim of this work is to characterize the Jute-cotton blended fabric. In this work 2/1 and 3/1 twill fabrics have been produced with Jute-cotton blended yarn at two different ratios, e.g. 50:50 and 30:70 respectively. A detailed analysis of both fabric samples such as weave design, yarn count, fabric density, cover factor, weight per unit area ( $\text{g/m}^2$ ), fabric strength, dyeing performances such as wash and rubbing fastness have been evaluated. The Reflectance percent and color strength K/S values of reactive dyed fabric and indigo dyed warp yarn fabric samples were also studied. The experimental works have been done at Hoor-e-Shams Composite Textile Mills Ltd., Southeast university and R. H Corporation (CHT Bezema) in Bangladesh.

In the present work, a few characteristics of jute-cotton blended fabrics have been evaluated. Fabric produced from the blended yarn might have better characteristics than what could be obtained in a fabric produced from a single fiber. The blending of cotton is done to develop drape properties, comfortability, durability, dyeability and many other properties of the fabric products. Any successful attempt to blend jute fiber with cotton would be a breakthrough in the field of textile.

The use of fabrics made from Jute-Cotton blended yarns would surely strengthen our economy by cutting a part of the cost incurred for importing cotton and enhancing the value addition due to locally produced cheaper jute as a raw material, an opportunity to integrate the blended yarn into the production of jute cotton denim and other heavy fabrics also.

#### **4.2 Jute as Fashion Clothing**

Jute is employed to create fashionable and sustainable garments within the range of natural fiber apparel. In order to make fine quality garments, it is used in combination with pure cotton and other natural fabrics to make them soft, light and breathable. Jute apparels are available with a variety of

designs and patterns. They not only look trendy, but also add aesthetic appeal. Stylish and colorful Jute jackets are very popular. It's trendy and create a unique style statement. Fashion barons all over the world have experimented extensively with this natural fabric and have come out with different styles of jackets. Moreover, denim, shirting, suiting and many more garments are successfully design from jute-blends fabric.

Fashion designers and brands are working for many days for this purpose, among them Prabha Mohanty, an Indian designer, has pioneered the use of jute into high fashion garments and working for around about 30 years and even he introduced jute in Haute Couture arena.

Another award-winning fashion designer based in Co. Clare in the west of Ireland, Regina Tierney can be mentioned as she has made so many dresses from jute, even wedding dresses too.

### **4.3 Jute Footwear**

Jute as a raw material has penetrated into many spheres of artistic activity and the footwear industry has not remained untouched. Jute sandals, clogs and slippers are being made in latest designs and have found universal acceptance. Jute footwear is made of Bleached & Natural yarn inter-woven with Hessian lining. Jute sandals may have jute uppers and a rubber base. Sometimes, the sides are pasted with velvet fabric. The insole is made from suede, leather or some other material. Sandals with braided Jute straps look very trendy. The straps may be embellished with glass beads, or other flowery patterns. These sandals come in Natural, Brown or tanned brown color.

### **4.4 Jute Fashion Accessories**

Hat, belt, buttons, laces, Jewellery and other kinds of fashion accessories made out of jute yarn lend a unique look. Buttons covered with jute cloth look very chic and are in high demand in the international fashion market. These buttons are made in different shapes, sizes and are available in a variety color. Jute laces provide a rough look. Jute laces are made of jute threads that may be embellished with hand embroidery and wood beads on jute fabric. These Laces are made with Jute Yarn in different color combination.

Neck piece, ear wring, Bangle, etc. many more fashion jewellery item made from jute which are very popular for a long time being.

Apart from being a fantastic new asset to the world of fashion- jute products are gaining popularity due to the eco friendliness. A perfect way to save the world while looking fashionable.

### **4.5 Consciousness of Synthetic Fiber Products Uses**

Millions of synthetic product dispose in every day from which very few are recycled. These products create major environmental degradation and air pollution as they emit harmful gases into the atmosphere throughout their life cycle. Moreover, the manufacturer of synthetic product contributes to the diminishing availability of our natural resources. Most synthetic product made from polyethylene. Polyethylene disturbs the flow of nutrients in the soil and reduces the infiltration of sunlight and water. Polyethylene destroys beneficial Bacteria in the soil, depleting the fertility, which directly affects agriculture. Polyethylene is an agent of cancer, skin diseases and other health problem.

A global consciousness has already developed against the use of artificial fibers and synthetic products, which are now being replaced by the environment friendly jute goods.

### **5.0 Future Strategies for increasing demand of jute life style products**

- Diversification of jute goods and comprehensive policies would boost jute life style product use in everyday life.
- Increase the awareness of society to create demand of the natural fiber uses as jute.
- For keeping our environment safe, Jute products must be used instead of synthetic materials.
- If our government takes necessary steps to inspire jute good producer, they will be motivate to produce jute good by which they will be able to earn huge capital.
- By applying jute composite to produce car body, cell phone body, computer body, table, chair etc. in doing so jute will increase the economy of our country also it will create the job vacancy for our countrymen.

### **6.0 Conclusion**

Although jute sector is striving for its existence with a huge accumulated financial burden on it and losses being incurred every year, yet the rays of hopes are not totally disappeared. As renewable, biodegradable, easily disposable and environment friendly natural commodity, there is a good prospect of Jute and Jute products.

The Govt. of Bangladesh banned production, sale and use of polythene from 01 March, 2002. As a result, the demand of Jute & Jute goods is increasing.

Series of R&D project and programmers had been implemented and these have generated new technologies for production of diversified jute products. There is huge demand of Diversified Jute Products in National and International Market.

Growing international interest for diversified and lifestyle jute products have prompted Bangladeshi jute manufacturers and exporters to develop value-added jute products. That has been already reflected in BDT 568 core (Around 68 million USD) project of establishing a composite jute textile plant by Bangladesh Jute Mills Corporation (BJMC) to make fabrics, particularly denim. Jute product manufacturer in Bangladesh now interested to produce diversified life style product.

### **References:**

1. Khan, M. M., & Islam, M. M. (2015, July 15). Materials and manufacturing environmental sustainability evaluation of apparel product: knitted T-shirt case study. *Textiles and Clothing Sustainability* at <https://doi.org/10.1186/s40689-015-0008-8>, 1-12.
2. Sirohi, N. (2016). Eco friendly fibres. *International Journal of Home Science* at <http://www.homesciencejournal.com/archives/2016/vol2issue3/PartA/2-2-71.pdf>, 2(3), 24-26
3. Food and Agriculture Organization (FAO). (n.d.). Future Fibres. Retrieved September 1, 2018, from The Food and Agriculture Organization of the United Nations: <http://www.fao.org/economic/futurefibres/fibres/jute/en/>

4. Basu, G., & Roy, A. N. (2008, October 12). Blending of Jute with Different Natural Fibers. *Journal of Natural Fibers* at <https://doi.org/10.1080/15440470801893323>, 4(4), 13-29.
5. Biswas, D., Nandi, A. K., Chakrabarti, S. K., & Ray, P. (2013). Development of Sustainable Technology to Produce Jute-Ramie Blended Textile and Its Applications. In R. Figueiro, & H. Hong (Ed.), *Conference Papers in Materials Science.2013*, pp. 1-4. Egypt: Hindawi Publishing Corporation.
6. Chellamani, K., & Vittopa, M. (2005). Effective blending of jute with silk. Retrieved September 5, 2018, from [https://www.researchgate.net/publication/296756489\\_Effective\\_blending\\_of\\_jute\\_with\\_silk](https://www.researchgate.net/publication/296756489_Effective_blending_of_jute_with_silk)
7. Mohanty, P. (2001, September 5). Jute: the new look. New Delhi, INDIA: Ministry of Textiles, Office of the Development Commissioner (Handicrafts) [New Delhi].
8. Celtic Fusion Design. (n.d.). Sustainability & Ethics . Retrieved September 1, 2018, from Celtic Fusion Design: <http://celticfusiondesign.com/sustainability-ethics/>
9. Wadud, A. (2018, March 9). The world of fashion beckons jute. (S. Khan, Editor, & International Publications Limited) Retrieved September 1, 2018, from The Financial Express: <https://thefinancialexpress.com.bd/views/views/the-world-of-fashion-beckons-jute-1520603701>
10. Parvez, S. (2017, March 21). BJMC takes up Tk 568cr project to make denim. (M. Anam, Editor, & Transcom Group) Retrieved September 2, 2018, from The Daily Star: <https://www.thedailystar.net/business/bjmc-takes-tk-568cr-project-make-denim-1378957>