***Cotton***

***Economics:***

*Economics is the study of the production and consumption of goods and the transfer of wealth to produce and obtain those goods. Economics explains how people interact within markets to get what they want or accomplish certain goals. Since economics is a driving force of human interaction, studying it often reveals why people and governments behave in particular ways.*

***About Bangladeshi Textile:***

*The textile and clothing (T&C) industries provide the single source of economic growth in Bangladesh's rapidly* *developing* *economy* *Exports of textiles and garments* *are the principal source of foreign exchange earnings. By 2002 exports of textiles, clothing, and* *ready-made garments* *(RMG) accounted for 77% of Bangladesh’s total merchandise exports. By 2013, about 4 million people, mostly women, worked in Bangladesh's $19 billion-a-year industry, export-oriented ready-made garment (RMG) industry. Bangladesh is second only to China, the world's second-largest apparel exporter of western brands. Sixty percent of the export contracts of western brands are with European buyers and about forty percent with American buyers.* *Only 5% of textile factories are owned by foreign investors, with most of the production being controlled by local investors.*

***Short note of cottton:***

*Now a day’s cotton is an economic asset of Bangladesh, it is a natural fiber used primarily as a raw material in textile industry. Cotton is a unicellular, natural fiber composed of almost pure cellulose. As taken from plants, the fiber is found in lengths of 3/8 to 2 inches’’.*

***Superior Quality of cotton fiber:***

* *1.High tensile strength*
* *2.Dimensional stability*
* *3.Long durability*
* *4.Friction with other materials*
* *5.Good weaving quality*
* *6.Launder ability*

***Classification of cotton:***

***The cultivated cotton can be classified into two types:***

***1. The American or New world cotton:***

*(a) Gossypiumhirsutum*

*b) Gossypium barbadense****2.The Asiatic or Old World cotton:***

*a) Gossypiumarboreum and*

 *b) Gossypium herbaceum.*

***Top Cotton Producing Countries In The World:***

*Bellow we can see the top 10 cotton producing countries. Where China is in the 1st position. Environment, sufficient area is the main causes for large amount of cotton producing.*

| ***Rank*** | ***Country*** | ***Cotton Production in Thousand Metric Tonnes*** |
| --- | --- | --- |
| ***ss1*** | ***China*** | ***6,532*** |
| ***2*** | ***India*** | *6,423* |
| ***3*** | ***United States*** | *3,553* |
| ***4*** | ***Pakistan*** | *2,308* |
| ***5*** | ***Brazil*** | *1,524* |
| ***6*** | ***Uzbekistan*** | *849* |
| ***7*** | ***Turkey*** | *697* |
| ***8*** | ***Australia*** | *501* |
| ***9*** | ***Turkmenistan*** | *332* |
| ***10*** | ***Mexico*** | ***297*** |

***Top cotton exporting countries during 2015:***

*China is the world no one cotton exporting country. About 29.1% of total amount of cotton they export. It is a huge amount.*

|  |  |  |
| --- | --- | --- |
| ***Country name*** | ***Amount in US$*** | ***percentage*** |
| ***China*** | ***15.8 billion*** | ***29.1%*** |
| ***India*** | *7.5 billion* | *13.8%* |
| ***USA*** | *5.9 billion* | *10.8%* |
| ***Pakistan*** | *3.1 billion* | *5.7%* |
| ***Hong Kong*** | *2.3 billion* | *4.3%* |
| ***Vietnam*** | *1.8 billion* | *3.2%* |
| ***Turkey*** | *1.7 billion* | *3.1%* |
| ***Italy*** | *1.5 billion* | *2.7%* |
| ***Brazil*** | *1.4 billion* | *2.7%* |
| ***Germany*** | ***998.9 million*** | ***1.8%*** |

***Top cotton importing countries:***

*China is the world no one importing country. Here Bangladesh is in 2nd position.*

|  |  |  |
| --- | --- | --- |
| ***Country*** | ***percentage*** | ***Amount in US$*** |
| ***China*** | ***20.2%*** | ***10.3 billion*** |
| ***Bangladesh*** | *8.8%* | *4.5 billion* |
| ***Vietnam*** | *7.4%* | *3.8 billion* |
| ***Turky*** | *4.5%* | *2.3 billion* |
| ***Hong Kong*** | *4.2%* | *2.1 billion* |
| ***Indonesia*** | *3.1%* | *1.6 billion* |
| ***South Korea*** | ***2.6%*** | ***1.3 billion*** |

***SWOT Analysis of Cotton Fiber:***

***Strength:***

***Comfortable:*** *It is very user friendly and much comfortable to use.*

***Absorbent:*** *It has good water and moisture absorbency properties.*

***Dye Affinity:*** *It has great affinity to dye and dye last for a long period of time.*

***Washable:*** *It can easily be used time to time.*

***Strong:*** *It is a strong natural fiber with very light in weight.*

***Easy to handle:*** *Cotton fibers are easy to handle. And it is very easy to sew to cotton fiber and make garments parts.*

***Inexpensive:*** *Cotton fiber is cultivated worldwide and it is available in large quantity. It is also inexpensive among natural fibers.*

***Weakness:***

*Shrinks in hot water: When cotton fabric is washed in hot water the fiber shrinks. It tends to squeeze the fabric.*

***Wrinkles Easily:***

*When cotton fabric is used for a long period it forms wrinkles. It can show creep and crease effect.*

***Low Light fastness:***

*When cotton fabric is used under sunlight, it tends to fade the color. Its light fastness is poor.*

***Burns easily:***

*Cotton is not flame retardant fiber. So it burns easily.*

***Opportunity:***

***A very fine material:***

*Cotton is by far the most widely used natural fiber for clothing and household textiles. It is a good conductor of heat. In other words, it draws heat away from the skin and keeps one cool, making it comfortable to wear. It is very soft, making it an ideal material for underwear. It does not cause static electricity. Cotton can be easily dyed with various colors. It absorbs moisture easily and can take up to one fifth of its weight in water before it feels damp. Therefore, it absorbs body moisture and evaporates it to the surrounding air, thus allowing the body its natural tendency to breathe – keeping one cool in summer and dry and warm in winter.*

***Recycled cotton:***

*Bonded Logic* *has come up with an innovative new way of recycling your old denim jeans – it's using them to create durable housing insulation. From Blue to Green, which awarded communities in need through the creation and development of community-based green buildings.*

***Cotton as a conductor:***

*At the* [*Textiles Nanotechnology Centre at Cornell University*](http://nanotextiles.human.cornell.edu/index.htm)*, Professor Juan Hinestroza and a team of researchers have given cotton threads special properties using nanotechnology. The cotton fibers are covered with microscopic particles enabling them to conduct electricity. The applications of this are endless, but they have already used them to sense the heart rate of a person wearing the fabric, and created* [*clothes that can power electronic devices*](http://www.news.cornell.edu/stories/March10/SolarCoat.html)*. They can even create color without dyes, enabling them to change the color of garments at the flick of a switch!*

***Threats:***

***Rise of synthetic fiber:***

*With the rise of synthetic fiber the demand of cotton is decreasing day by day. As synthetic fibers are produced in laboratory their properties can be controlled. Hence these fibers are dominating the world market. In future synthetic fiber may rule the garments sector.*

***Environmental issue:***

*The cultivation of cotton requires fertile lands. Besides huge amount of fertilizers, insecticides, pesticides are used for cotton cultivation. These causes serious environment pollution.*

***Cotton and Bangladesh:***

*The sowing period for upland cotton is from July to February. Harvesting is generally completed by late February. Main varieties of American cotton grown in Bangladesh are CB-1, CB-3, CB-5, CB-9.*

***Statistics of Bangladeshi cotton***

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***Problems Associated with Cotton Production in Bangladesh:***

*The following are the major problems associated with cotton production in Bangladesh.*

1. ***Underdeveloped research activities:***

*Research section is considered the key of development. This section did not improved due to lack of trained manpower, laboratory facilities, adequate fund, collaborative project with foreign countries etc.*

1. ***Low yield:***

*Modern production technologies were not developed. Varieties are low yielding.*

1. ***Long duration crop:***

*Long duration crop needs 6-7 month for production. Commercial five varieties are grown in Bangladesh namely, CB-1, CB-3, CB-5, CB-9, and CB-10. Out of five varieties, only CB-5 and CB-9 are hairy varieties which are slightly tolerant to sucking pests and all the varieties are long duration and they need at least six months. Some of the private companies have been imported hybrid seeds for trial to see the yield performance but these are not performing better than open pollinated varieties developed by CDB in addition it needs high inputs for cultivation.*

1. ***High input cost:***

 *High input cost, particularly fertilizer and pesticides. This is because of the heavy reliance on pesticides for cotton pest management.*

1. ***Competition from other crops:***

*At present cotton is highly competitive with other crops and in many cotton growing areas farmers find it more profitable to grow other crops such as rice, maize, vegetables, banana, flowers, tobacco etc. than cotton. That’s why farmers are migrating to other crops.*

1. ***Insect pests and Diseases of cotton:***

 *Similar to many countries, cotton in Bangladesh is major polluter crop due to the heavy and indiscriminate pesticide use, especially insecticides for Aphids, Jassids and cotton bollworms. The number of insecticide sprays exceeds 15-20 per season bringing the cost of insecticides to more than 40% of total input costs and triggering pest resurgence and secondary out breaks. Important insect pests of American cotton in Bangladesh include the chewing insect namely American bollworm, spotted bollworm and pink bollworms and the sucking insects namely the Jassids, aphids and whitefly. Sometime spodopterais also become a serious pest in some areas of Bangladesh. The insect pest complex on Hill cotton is similar to American cotton.*

1. ***Weed problem:***

*During cotton cultivation, in Bangladesh high rainfall and high temperature prevail that enhance huge growth of upland weeds leads to increase cost of production. 8. Low market* price for cotton In Bangladesh, the price fixed by CDB for its procurement of seed cotton *from its contact farmers also influences the general market price. The CDB rate itself is fixed by a committee. International market price is the main factor that is considered by fixing the cotton price in Bangladesh. So, cotton price is the important factor in determining future cotton production in Bangladesh.*

***Reference:***

1. [*http://bdnews24.com/business/2016/04/27/bangladesh-eyes-increasing-local-cotton-production*](http://bdnews24.com/business/2016/04/27/bangladesh-eyes-increasing-local-cotton-production)
2. [*http://cottonbd.blogspot.com/*](http://cottonbd.blogspot.com/)
3. [*https://en.wikipedia.org/wiki/Bangladesh\_textile\_industry*](https://en.wikipedia.org/wiki/Bangladesh_textile_industry)
4. [*https://en.wikipedia.org/wiki/Bangladeshi\_RMG\_Sector*](https://en.wikipedia.org/wiki/Bangladeshi_RMG_Sector)
5. [*http://www.assignmentpoint.com/science/textile/assignment-on-cotton.html*](http://www.assignmentpoint.com/science/textile/assignment-on-cotton.html)