Cotton as White Gold: The Glorious Story and History of the Weaving Wealth R. Nageswari^{1*}, T. Sanjay Kumar¹, K. Subrahmaniyan¹, V. Dhanushkodi² and S. Somasudaram³

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Introduction

Cotton is being cultivated in an area of 31.8 million hectares with 112.8 million bales (1 bale = 217.72 kg) during 2023-24 (USDA, 2023) in the world. Out of the world's total cotton production, China contributed 27.5 million bales, India 25 million bales, Brazil 14.6 million bales, and America 12.40 million bales. In India, cotton was cultivated in an area of 123.87 lakh hectares and produced 323.11 lakh bales of cotton with a productivity of 405 kg/ha. India ranks first in the world with the World's highest area of more than 12.5 M ha under cotton and is the 2nd largest consumer (300 lakh bales) and third largest exporter (50-70 lakh bales) (AICRP, 2024). Among the states growing cotton, Gujarat stands first with a productivity of 89.65 lakh bales, followed by Maharashtra (82.43 lakh bales), Telangana (48.1 lakh bales), Rajasthan (27.43 lakh bales), and Madhya Pradesh (17.97 lakh bales during 2023-24).

Cotton has been cultivated for thousands of years. The first centers of cotton farming were found in South America, Africa, and Asia. Cotton was not widely used in Europe until the 19th century, when wool and linen were still the most common materials used to make textiles. Europeans developed new methods of producing, trading, and consuming cotton by the end of the 18th century, integrating other regions of the world into the global networks and flows related to cotton and cotton-derived goods. Historian Sven Beckert referred to the previously divided cotton worlds as a cotton empire with its center in Europe after the Industrial Revolution. Two fresh threads are woven into the cotton saga by SEM's collections, which date back to the early 20th century: one includes the collection from the Bengal mission in East India and the collection returned from Togo by Baron Anton Codelli and his partner Leo Poljanec. Both are products of their collectors' work, which in the case of Togo was establishing the first radiotelegraph station between what was then Togoland and the German Colonial Empire, and in the case of the Bengal mission, was approaching the people relevant to religions. Some information about cotton production and apparel in India and Togo can be gained from a few items, including textiles, Indian prints of everyday patterns and deities, and photography and video materials.

Cotton was a labor-intensive crop, and many plantation owners were reducing the number of people they enslaved due to high costs and low output. Eli Whitney transformed the production of cotton in 1793 by creating the cotton gin, a machine that separated raw cotton from seeds. All of a sudden, a very labor-intensive process could be finished quickly and simply. Cotton, a commodity cultivated for market value rather than for personal consumption, became the main cash crop in the South by the early 1800s. Cotton's economic significance swiftly surpassed that of rice, sugar, and tobacco.

In India, cotton is one of the most significant cash crops and natural fibers grown. Cotton was one of the most widely used natural fibers in the world. The fabric made of white cotton has thousands of uses. Because of its immense global value, it was known as "White Gold. This term underscores its value, much like gold, in terms of wealth generation and its essential role in multiple industries, particularly textiles.

1. Economic Importance

Cotton is a "cash crop" that generates significant revenue for both small farmers and largescale agricultural producers. It's grown in more than 80 countries, and for many of these nations, cotton is a crucial part of the economy. India's textile industry agricultural industrial and growth and significantly influenced by the country's cotton industry. About 40-50 million people in India are employed in the processing and trade of white cotton fabrics, and about 6 million farmers depend directly on cotton production for their livelihood. India produces 25% of the world's white cotton fabric, making it the largest producer in the world. With over 38% of the entire land area under cultivation, it also boasts the greatest cotton farming area in the world.



India has been producing white cotton fabric since 3000 BC, when it was sold to Europe and Asia as a bargaining tool. With the exception of the payment mechanism and the extension of the regions to which it is shipped, not much has changed since then, since India still exports enormous quantities of cotton to these continents.

2. Employment

Cotton production provides jobs across the value chain from cultivation to processing and manufacturing. In developing countries, especially, it is often the primary source of income for rural populations. In countries like India, China, the U.S., and Brazil, cotton farming supports millions of people, providing livelihoods not just to farmers, but to those involved in processing, ginning, and exporting cotton.

3. Rural Economy

Cotton acts as a key driver for rural economies, with many farmers depending on it as a reliable cash crop.

Textile Industry

Cotton is essential for the global textile industry, which produces a vast range of fabrics and products. Its natural qualities make it one of the most sought-after fibers for making clothing, home furnishings, and other industrial textiles. The demand for cotton-based products makes it vital for the textile industries of countries such as Bangladesh, India, China, and the U.S.

Trade and Export Value

Cotton is one of the most traded agricultural commodities globally, with countries like the U.S., Brazil, and India being major exporters. For many countries, cotton exports are a significant source of foreign exchange and play a crucial role in balancing trade deficits.

Strategic Commodity

Much like gold, cotton serves as a strategic commodity for national economies. Its export brings in significant revenue and stabilizes economic performance, especially in regions highly dependent on agriculture.

International Trade

The cotton trade fuels relationships between developing countries (producers) and developed

countries (consumers). This trade is vital for developing countries to grow their economies.

Environmental and Agronomic Value

While cotton is highly valuable, it also requires substantial natural resources for cultivation, such as water. Modern advancements in agricultural technology and drip irrigation have increased yields and made cotton production more efficient. Still, the crop is essential for food systems as well, since cottonseed is used in the production of animal feed and even cottonseed oil.

High Demand and Versatility

Cotton is called "white gold" because of its high demand and versatility in producing a wide variety of products. Its properties make it a preferred material for numerous applications:

Hypoallergenic and durable

Cotton is a breathable, soft fabric and less likely to cause skin irritation compared to synthetic fabrics, making it a preferred choice for sensitive skin. It has excellent moisture absorption properties, making it ideal for towels, undergarments, and sportswear.

Environmentally Friendly

Cotton, as a natural fiber, is biodegradable, making it an environmentally friendly alternative to synthetic materials like polyester, which are derived from petrochemicals. When disposed of, cotton breaks down more easily in the environment, reducing its long-term impact on landfills and ecosystems. Unlike synthetics, which can take hundreds of years to degrade and often release microplastics into water systems, cotton returns to the soil without leaving harmful residues. These qualities ensure a consistent demand across the world, from fashion to industrial goods, which boosts its market value much like the role gold plays in financial markets.

Historical and Cultural Significance

The cultivation and trade of cotton have deep roots in global history. It was one of the first fibers to be spun into cloth, and throughout history, cotton has been instrumental in shaping economies, societies, and trade patterns. Some key aspects of its historical significance include:

Industrial Revolution: Cotton was a key factor during the Industrial Revolution, particularly in Britain and the U.S. The rise of cotton mills powered economic



expansion and urbanization, creating wealth for these nations.

Colonial Economies

During the colonial period, cotton was one of the main products that European powers exported from their colonies. Its cultivation, often through slave labor, generated enormous wealth.

Symbol of Prosperity

In many regions, cotton was seen as a symbol of wealth and prosperity. Owning large cotton fields and producing cotton contributed significantly to social status in various historical periods.

Conclusion

Cotton is called "white gold" because of its vital importance in global agriculture, trade, and industry.

It creates economic value for millions of people, drives industries, and has historically shaped economies and trade. Its natural qualities, combined with its high demand, make it indispensable, much like the precious value attributed to gold.

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