

Inappropriate Technology and Markets Kill Cotton Farmers and Weavers

A Passionate Account since Colonial Times

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A Frayed History: The Journey of Cotton in India

By Meena Menon and Uzramma.

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Many development theorists in the world are now focused on building counterfactuals, which are not obvious as the phenomenon in question does not occur on the two subjects at the same time. The same however does not arise in history, which belongs to victors. Nothing symbolises this than the heart wrenching tale of India that dominated the world textile trade until the 17th century, becoming a huge importer at the altar of imperialistic power. A complex interplay of factors, in the intervening areas of technology, markets and state power, has decimated the country from 'clothes of the world' to distress-ridden cotton fields and dying handlooms. Cotton symbolises this painful trajectory of the country and is more than a commodity in understanding the perforce entry into the vortex of international markets. This book vividly picturises this 'historical record from ancient times leading up to a contemporary context of what is happening to cotton growing, spinning, and weaving in India', highlights policy failures and draws lessons.

From Cloth Exports to Cotton Exports

India exported textiles from around 1000 AD and dominated world textile market for a long time until the end of eighteenth century. The scenario changed in the last decade of that century with inventions in machines for spinning, weaving and ginning, apart from steam engine. The resultant Industrial Revolution in England enabled mass production of textiles and spurred craving for markets across the globe. The East India Company that carried textiles back home to England earlier started now to ship back cheaper textiles using imperialist grip by one-way free trade. This led to deindustrialisation in the then thriving towns of India and people had to switch either to cultivation or join ranks of agricultural labourer to escape hunger and famine. Cotton growers were forced to sell raw cotton at designated 'market yards' to serve raw material needs of Lancashire mills. Forced exports driven out weavers for lack of supplies. This disrupted local system of cotton growing, spinning and weaving and coordination of people involved in these activities.

The East India Company also forcefully introduced long stapled American cottons to suit newly invented machinery. The farming community had to undergo tremendous difficulty in the process of naturalisation of these cottons, which took 60-70 years in case of one species

and 150 years in the other. Nevertheless, *desi* cottons continued to have a considerable share until the advent of Bt cotton in 2002.

Long after the introduction of American cottons, another major milestone in the development of cotton in the country was the introduction of biotechnology in cotton through what is called *Bt* cotton. This book deals with the impacts of the technology in greater detail and also analyses farmer distress in *Vidarbha*. The authors seem to have given more credence to technology bashers. Nevertheless, several field level studies showed higher yields, higher net income and lower pesticide expenditure. However, many of these studies were done prior to 2013. Though American bollworm is effectively controlled even now and likely lower plant protection expenditure, there is a need to take a fresh look at the pesticide expenditures. Notwithstanding the confusion created by data of the Cotton Advisory Board that does not have a data collection mechanism, data from the Department of Economics and Statistics of the Ministry of Agriculture clearly shows yield growth in correlation with ascending share of area under biotech cotton.

There seems to be a pointless dilemma on whether hybrids, and consequentially *Bt* cotton, can be cultivated in rainfed areas or not. Drought tolerant GM maize now commercialised in USA in 1.1 million hectares is evidence of the potential of biotechnology in this direction. Issues like pink bollworm resistance can be handled better through continuous research using cutting biotechnological tools using two cultivated *desi* cotton as well as the large pool of cotton germplasm; and product development. The crisis in *Vidarbha* region is a function of a several interrelated factors that include low share of irrigation for cotton (6 per cent), lower availability of formal credit, lack of market access with the termination of Monopoly Cotton Procurement Scheme and lack of region specific research.

Path Breaking Work

The chapter on ‘The *Malkha* Story’ recounts the riveting and inspiring story of how a small group of committed individuals overcome seemingly insurmountable constraints in their ‘de-centralised spinning initiative’ from finding suitable machinery to weaving cloth. *Dastkar Andhra* in association with weavers associations in Chirala made this happen and now are able to sell cloth in the name of *Malkha* fabrics. This initiative has the initial aim of yarn for hand weaving and the larger goal of showing that the entire process of spinning and weaving can be done at local level using small machines. It follows essentially the same principles as the bigger machines, though the carders in this case takes unbaled cotton rendering redundant the processes of baling and unbalancing. This has been running successfully and shows an alternative direction of technology development, one that challenges the inevitability of progress along a route of high-energy industrialisation.

The central argument is that large scale spinning machinery amenable to only long stapled cotton destroyed localised production patterns and links between cotton growers, spinners and weavers, with mills acquiring more power. There have been several arguments like these against centralised large scale production and attendant ill-effects. M.K.Gandhi raised this question as either ‘mass production or production by the masses’. E.F. Schumacher, widely considered to be the ‘the father of the Green movement’ argued that ‘small is beautiful’ with humans as the central focus and with ‘intermediate technology’. Notwithstanding some of the

merits of these arguments, capitalist mode of production advances as it has the answer to mass welfare. In this cotton story, it is of equal if not more importance to internalise the needs of general population as consumers of cloth and the attendant fact that they require their clothing needs fulfilled at cheaper rates. Cost reduction is a great advantage of inventions and mass production. Industrial Revolution reduced cotton cost in 1861 to less than 1 per cent of its cost in 1784. On the other hand, intermediate technologies like *Malkha* have the potential to help handloom weavers through hank yarn and developing niche markets. It needs to be kept in mind that handlooms produce 12 per cent of the total textile output and provides rural non-farm employment to 4.5 million people. Therefore, large and medium size can co-exist with appropriate technology. National technology policies may accommodate all the stakeholders with due recognition of the crucial significance of handlooms in creating employment.

Two takeaways from the book are the need for policy focus for intensive research on appropriate spinning and weaving technologies to suit Indian conditions on the value addition side; and varietal development harnessing *desi* cottons on the cotton production side. Academic research may build on these well-articulated concerns arising from voices on the ground. We cannot agree more with the authors that 'cotton has a memorable past, a present, and, definitely, a future'. This book is a valuable addition to literature on the history of cotton growing, spinning and weaving.