

COTTON PRODUCTION IN INDIA: AN ECONOMIC ANALYSIS

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ABSTRACT:

Cotton is one of the most important and ancient crop of the world. It plays a very significant role in the economic, political and social affairs of the world. In India, cotton is cultivated as an important cash crop and used as fabric since time immemorial. Ancient texts of India like Rig Veda, Dharmashastra etc. mention the use of cotton. There are evidences to indicate that India had been the centre of important textile industry as early as 1500 BC. At present, Indian textile industry with more than 1062 textile mills constitutes one of the largest contributor to the economy in terms of annual output and labour employed, both direct and indirect. A poverty line is the income required for a minimum consumption level of food, clothing, shelter, transport, health care, and other necessary items. In 1979, the Task Force on Projections of Minimum Needs and Effective Consumption Demand defined the poverty line as the per capita consumption expenditure level at which the average daily calorie requirement were met on the basis of the all-India consumption basket using 1973-1974 data from the National Sample Survey (NSS) 28th round. The task force used the age/sex/activity-specific calorie allowances recommended by the Nutrition Expert Group to estimate the average daily per capita requirement for rural and urban areas (2,400 kilocalories in rural areas and 2,100 kilocalories in urban areas), using their respective population structures as projected for 1982-1983. Thus, to the extent the data permitted, the age, sex, and occupational differentials in the

population's daily calorie requirement were captured in the average norms.

REVIEW OF LITERATURE

The poverty line thus defined for 1973-1974 had been, until recently, updated over time for changes in price levels using the price deflator implicit in the constant- and current-price estimates of private final consumption expenditure (PFCE) of the National Accounts Statistics (NAS). In 1993, the Expert Group on Proportion and Number of Poor found this procedure unacceptable and recommended exclusive use of NSSO-based distributions of population by level of consumption expenditure for estimating the head-count ratio. At present, following the group's recommendations, separate deflators are used for rural and urban areas of different states. The state-specific consumer price index of selected commodity groups for agricultural laborers was used as the price deflator for the rural areas, whereas state-specific retail price movement of consumer price index was used for industrial workers for urban areas. Deflator-related issues aside, the acceptability of the measure of India's incidence of poverty now 4 I am grateful to Caesar Cororaton and David Orden of the International Food Policy Research Institute (IFPRI) for their valuable suggestions, inputs, and editorial changes to this chapter and Chapter 4. I am also thankful to Alope Kar, who went through the chapters and made useful changes. I am also grateful to my research assistant, depends exclusively on the quality of the basic data collected by the NSSO from a large sample of households by canvassing, using fairly detailed schedules of enquiry (Kulshreshtha and Kar 2005).

The data to measure the incidence of poverty for subsequent periods are available from both annual and quinquennial surveys of household consumption expenditures. The latter provides the most reliable estimates, especially at the state level. The officially estimated incidence of rural poverty in all of India indicates that rural poverty declined from 56.4 percent in 1973–1974 to 37.3 percent in 1993–1994 and further to 28.7 percent in 2004–2005.

A number of structural factors contribute to rural poverty in India; thus, faster growth through economic reforms is not always accompanied by a faster rate of poverty reduction. Indian farmers are, in many cases, in a bad economic situation, and some are committing suicide, despite the fact that the agriculture sector grew by 6.0 percent during 2005–2006 and 2.7 percent during 2006–2007. Suri (2006) pointed out that although agriculture distress is not a new phenomenon in India, farmer suicides are, especially among seed cotton (kapas) growers. This is happening despite the fact that the cotton yield per hectare increased after 2002–2003, especially after the introduction of Bt cotton and other measures introduced in the centrally sponsored scheme of the Technology Mission on Cotton (TMC).

The explanations for agricultural distress and for high growth not being accompanied by reductions in poverty are multidimensional and need to be explored. The difficulties for the poor population always accumulate under the various structural adjustment processes. One explanation could be the mismatch between the opportunities available due to economic reforms and the skills of the poorest workers. Poverty can be reduced if growth increases productive employment potential (quantity *and* quality), a situation that is lacking in India. The lack of integration of the working poor into the economic process explains the lukewarm response of poverty reduction to growth. The

impact of domestic prices being linked to international markets, especially at a time when developed countries are providing subsidies and the rupee is appreciating in real terms, are other possible explanations for the low impact on poverty of overall economic growth, particularly for the cotton-producing households that are the focus of this study. The adoption of high-yield varieties of cotton with high-input costs makes the survival of the poor population more difficult during bad years, when crop failures occur after input costs have already been incurred. This problem is exacerbated by the existence of many varieties of seeds, with cotton growers, especially those operating small and marginal holdings, lacking knowledge about the seeds they buy or any means to verify the characteristics of those seeds.

The Transmission of World Prices to Farm-Level Prices in India

Developing countries, such as India, are slowly adopting market-oriented policies and lowering or withdrawing various supports, while subsidies in developed countries, particularly for cotton, have persisted at high rates. This chapter examines recent movements in international and domestic cotton prices and the transmission of world price movements to domestic prices in India.

International Prices

Cotton is being offered in the international market. It is an average of the cheapest five quotations from a selection (at present numbering 19) of the principal upland cottons traded internationally. Taking the average of the five cheapest quotations is a tried and tested means of identifying those which are the most competitive and are therefore likely to be traded in the most volume. This practice is a proxy for weighting, which is impractical due to the absence of timely data by which weights

could be calculated. Changes in the selection are made solely to reflect shifts in the cottons most frequently traded and occasionally added to or withdrawn from the, following the provision of appropriate notice, as the quality and availability of cotton from the various countries change. The base quality of the index is "Middling1-3/32" and is calculated by taking a simple average of the day's cheapest five Far Eastern quotations.

The prices at which cotton is offered to the industrial consumers—that is, the spinning and textile mills. Offering prices are monitored each business day in the United Kingdom and are published together with the day's indices at about 2:30 p.m. United Kingdom time. The indices are acknowledged by the trading fraternity, governments, and international organizations, such as United Nations Conference on Trade and Development (UNCTAD) and ICAC, as accurate measures of the fluctuation of international raw cotton values. Several cotton-producing countries incorporate the indices, or elements thereof, into national farm legislation.

In view of various technical considerations and characteristics important in determining its quality, Indian cotton is grouped with cottons. The world price of Index A cottons declined in U.S. dollars from a peak of \$94.30 per 100 pound in 1994–1995 to a trough of \$41.80 in 2001–2002; it then partly rebounded to \$57.04 in 2005–2006.

The price decrease from its peak to trough was 55.67 percent in nominal terms. The decline of the three-year averages centered on these peak and trough years is less, but are still 38.24 percent and 35.55 percent in nominal and real terms, respectively.

The decline in Index A cotton prices converted to nominal rupees using the U.S. dollar exchange rate is from Rs 2,961 per 100 pounds in 1994–1995 to Rs 1,994 in 2001–2002, a decrease of 32.67 percent. This is less than the

price decline in dollars because of the nominal depreciation of the rupee. The rupee depreciated in nominal terms from 1994–1995 to 2001–2002 by 51.89 percent. However, when adjusted for domestic inflation, the rupee depreciated by only 6.03 percent; when adjusted for a 10-country index real exchange rate (see notes to Table 3.2), it decreased by only 4.05 percent. The exchange rate adjusted by the 10-country real index is important in making a comparison of international competitiveness, whereas the real price in rupees impacts the viability and incomes of raw-cotton producing farmers. The real price of Index A cotton, expressed in 2005–2006 rupees, decreased from Rs 5,135 per 100 pounds in 1994–1995 to 2,413 per 100 pounds in 2001–2002, a decline of 53.0 percent.

Thus, although considerable depreciation took place in nominal terms from 1994–1995 to 2001–2002, the depreciation in real terms (whichever way we look at it) took place at a very slow pace during the same period. The decline in real price in rupees is very close to the decline of the nominal or real U.S. dollar price, as relative inflation in India offset the nominal changes. The decline from the three-year averages centered on these peak and trough years is less: only 9.08 percent in nominal terms, but still 32.7 percent in real terms.

More recently, since 2002–2003, the rupee has been appreciating relative to the dollar in nominal terms (8.5 percent by 2005–2006); thus, world prices expressed in nominal rupees have not increased as much as world prices in U.S. dollars since 2001–2002. This fact has been significant, as appreciation in real terms when compensated by domestic inflation (ignoring dollar inflation) was 23.3 percent from 2001–2002 to 2005–2006, and this trend continued in the first month of 2007–2008. This trend has caused problems for domestic producers, who are not able to bring prices up

as much as occurs in dollar terms (the dollar price of cotton was about 36.4 percent higher in 2005–2006 than in 2001–2002, but the rupee price increased by only 26.6 percent in nominal terms and by only 4.6 percent in real terms, taking inflation in India into account). In the absence of appreciation of the rupee against the dollar, the domestic farmers would have felt more relief due to reversal in the decline in cotton prices in dollars after 2001–2002. Apart from these problems, in India, the terms of trade have continuously been showing signs of reversal against the agriculture sector since 1996–1997. The movement of the general index of agricultural to nonagricultural prices. The only saving grace has been that the competition from abroad did not increase more steeply after 2001–2002, as the real rupee exchange rate adjusted for the 10-country index shows only a marginal rise of 0.04 percent.

The result is that the real cotton price in India has increased almost as much as international prices in dollars adjusted on a 10-country basis.

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